Life Science Paper 2014 March Grade 12

During the last century, advances in the life sciences were used in the development of biological and chemical weapons in large-scale state offensive programmes, many of which targeted the nervous system. This study questions whether the development of novel biological and chemical neuroweapons can be prevented as neuroscience progresses.

Solid waste management affects every person in the world. By 2050, the world is expected to increase waste generation by 70 percent, from 2.01 billion tonnes of waste in 2016 to 3.40 billion tonnes of waste annually. Individuals and governments make decisions about consumption and waste management that affect the daily health, productivity, and cleanliness of communities. Poorly managed waste is contaminating the world's oceans, clogging drains and causing flooding, transmitting diseases, increasing respiratory problems, harming animals that consume waste unknowingly, and affecting economic development. Unmanaged and improperly managed waste from decades of economic growth requires urgent action at all levels of society. What a Waste 2.0: A Global Snapshot of Solid Waste Management to 2050 aggregates extensive solid aste data at the national and urban levels. It estimates and projects waste generation to 2030 and 2050. Beyond the core data metrics from waste generation to disposal, the report provides information on waste management costs, revenues, and tariffs; special wastes; regulations; public communication; administrative and operational models; and the informal sector. Solid waste management accounts for approximately 20 percent of municipal budgets in low-income countries and 10 percent of municipal budgets in middle-income countries, on average. Waste management is often under the jurisdiction of local authorities facing competing priorities and limited resources and capacities in planning, contract management, and operational monitoring. These factors make sustainable waste management a complicated proposition; most low- and middle-income countries, and their respective cities, are struggling to address these challenges. Waste management data are critical to creating policy and planning for local contexts. Understanding how much waste is generated—especially with rapid urbanization and population growth—as well as the types of waste generated helps local governments to select appropriate management methods and plan for future demand. It allows governments to design a system with a suitable number of vehicles, establish efficient routes, set targets for diversion of waste, track progress, and adapt as consumption

patterns change. With accurate data, governments can realistically allocate resources, assess relevant technologies, and consider strategic partners for service provision, such as the private sector or nongovernmental organizations. What a Waste 2.0: A Global Snapshot of Solid Waste Management to 2050 provides the most up-to-date information available to empower citizens and governments around the world to effectively address the pressing global crisis of waste. Additional information is available at http://www.worldbank.org/what-a-waste.

Debates on the human-rights implications of new and emerging technologies have been hampered by the lack of a comprehensive theoretical framework for the complex issues involved. This volume provides that framework, bringing a multidisciplinary and international perspective to the evolution of human rights in the digital and biotechnological era. It delves into the latest frontiers of technological innovation in the life sciences and information technology sectors, such as neurotechnology, robotics, genetic engineering, and artificial intelligence. Leading experts from the technological, medical, and social sciences as well as law, philosophy, and business share their extensive knowledge about the transformation of the rights framework in response to technological innovation. In addition to providing a comprehensive, interdisciplinary, and international state-of-the art descriptive analysis, the volume also offers policy recommendations to protect and promote human rights in the context of emerging socio-technological trends.

This book arose from the authors knowledge of a small number of doctors who were not behaving in a professional or proper manner. As he read about them, he found he was astonished at the extent of some offenders. Any human being can have flaws in their character, personality disorders or mental illnesses, what if that person is your doctor? This book takes the reader on a journey from the colorful life of Geoffrey Edelsten through Medawar's The Strange Case of the Spotted Mice, a fertility specialist who used his own sperm to impregnate over 50 women without their knowledge to the lasting and devastating effects of the MMR vaccine debacle. The author suggests that a test needs to be devised to detect character flaws such as greed before they harm innocent people through fraud and deceit. As much a reference book as it is a celebration of the brave'whistleblower'and witty commentary on human nature, capturing the imagination, leading the reader to wonder why people make the decisions they do. Anderson himself had a colorful life and a brilliant career, leaving an immeasurable legacy to medicine. His wish

was that this book would prompt change, leading to enhanced integrity in the medical and scientific world.

In September 2011, scientists announced new experimental findings that would not only threaten the conduct and publication of influenza research, but would have significant policy and intelligence implications. The findings presented a modified variant of the H5N1 avian influenza virus (hereafter referred to as the H5N1 virus) that was transmissible via aerosol between ferrets. These results suggested a worrisome possibility: the existence of a new airborne and highly lethal H5N1 virus that could cause a deadly global pandemic. In response, a series of international discussions on the nature of dual-use life science arose. These discussions addressed the complex social, technical, political, security, and ethical issues related to dual-use research. This Research Topic will be devoted to contributions that explore this matrix of issues from a variety of case study and international perspectives.

The Cambridge Handbook of Information Technology, Life Sciences and Human Rights

Neuroscience and the Future of Chemical-Biological Weapons

Spatial Modeling in GIS and R for Earth and Environmental Sciences

Questions and answers for job interview Offshore Oil & Gas Rigs

A Clinical Approach

Diplomatic, Information, Military, and Economic Approaches

International Conference for Innovation in Biomedical Engineering and Life Sciences

Why is it that, while women in the United States have generally made great strides in establishing parity with their male counterparts in educational attainment, they remain substantially underrepresented in the fields of science, technology, engineering, and mathematics (STEM)? Why is it that, in proportion to the PhDs they obtain in STEM, they attain fewer administrative and managerial positions in academia and industry than their numbers warrant and, moreover, are more likely leave the field once started in their careers? In the culture and context of women's advancement and satisfaction with careers in STEM, the data show that many challenges and obstacles remain. By showcasing the stories of eight women scientists who have achieved successful careers in the academy, industry and government, Breaking In offers vivid insights into the challenges and barriers that women face in entering STEM while also describing these women's motivations, the choices they made along their paths, and the intellectual satisfactions and excitement of scientific discovery they derive from their work. Breaking In underscores issues aspiring women scientists will encounter on their journeys and what they can do to forestall potential obstacles, advocate for change, and fulfill their ambitions. And it speaks to the question: What can be done to encourage more women to specialize in science, mathematics, and engineering? In doctoral granting institutions, where women must start if they hope to earn advanced degrees, Breaking In can serve both as a student text and as guide for department

chairs and deans who are concerned about organizational climate and culture and their impact on retention in STEM fields. At a broader level, this book offers advice and inspiration to women contemplating entering STEM fields, as well to the teachers, researchers, and administrators responsible for nurturing these women, growing enrollments in their disciplines, and developing creative and intellectual capital that the nation needs to compete in the global marketplace.

The job interview is probably the most important step you will take in your job search journey. Because it's always important to be prepared to respond effectively to the questions that employers typically ask at a job interview Petrogav International has prepared this eBooks that will help you to get a job in oil and gas industry. Since these questions are so common, hiring managers will expect you to be able to answer them smoothly and without hesitation. This eBook contains 150 questions and answers for job interview and as a BONUS 230 links to video movies. This course covers aspects like HSE, Process, Mechanical, Electrical and Instrumentation & Control that will enable you to apply for any position in the Oil and Gas Industry.

Contents 1. Maria Isabel Andrade: Sweetpotato Breeder, Technology Transfer Specialist, and Advocate 1 2. Development of Cold Climate Grapes in the Upper Midwestern U.S.: The Pioneering Work of Elmer Swenson 31 3. Candidate Genes to Extend Fleshy Fruit Shelf Life 61 4. Breeding Naked Barley for Food, Feed, and Malt 95 5. The Foundations, Continuing Evolution, and Outcomes from the Application of Intellectual Property Protection in Plant Breeding and Agriculture 121 6. The Use of Endosperm Genes for Sweet Corn Improvement: A review of developments in endosperm genes in sweet corn since the seminal publication in Plant Breeding Reviews, Volume 1, by Charles Boyer and Jack Shannon (1984) 215 7. Gender and Farmer Preferences for Varietal Traits: Evidence and Issues for Crop Improvement 243 8. Domestication, Genetics, and Genomics of the American Cranberry 279 9. Images and Descriptions of Cucurbita maxima in Western Europe in the Sixteenth and Seventeenth Centuries 317

This book is a printed edition of the Special Issue "Facilities" that was published in QuBS

Prepare for psychiatric nursing care with this comprehensive, evidence-based text! Varcarolis' Foundations of Psychiatric-Mental Health Nursing: A Clinical Approach, 9th Edition makes it easy to understand the complexities of psychiatric disorders and how to provide quality mental and behavioral health care. Clinical chapters follow the nursing process framework and progress from theory to application, preparing you for practice with real-world examples. Other notable features include illustrated explanations of the neurobiology of disorders, DSM-5 criteria for major disorders, and nursing care plans. From clinical nurse specialist and lead author Dr. Margaret Jordan Halter, this bestselling text includes new Next Generation NCLEX® content to prepare you for success on your PMHN certification exam. Case Study and Nursing Care Plan boxes include real-life vignettes of patients with specific psychiatric disorders. Evidence-Based Practice boxes describe recent research studies and how their findings affect nursing practice. Six-step nursing process is followed in clinical chapters, providing consistent guidelines for comprehensive assessment and intervention. Learning features include key terms and concepts, key points to remember, critical thinking, and chapter reviews. Conversational, mentor-like writing style reinforces important

information and helps in applying textbook content to the clinical setting. Coverage of therapeutic communication techniques and nontherapeutic communication provides tips to help you build patient interaction skills. Assessment Guidelines summarize the steps of patient assessment for various disorders. Considering Culture boxes discuss the importance of person-centered care in providing competent care to diverse populations in various clinical situations. Patient and Family Teaching boxes focus on the nurse's role in helping patients and families understand psychiatric disorders, treatments, complications, and medication side effects.

Materials and Life Science Experimental Facility (MLF) at the Japan Proton Accelerator Research Complex (J-PARC)

Towards a Political Economy

Exploring the Ultimate Questions About Life and the Cosmos

Fraud and Deceit in Medicine

A Practical Analytical Approach

Women's Accounts of How Choices Shape STEM Careers

The Comprehensive Guide to Science and Faith

This book constitutes the refereed proceedings of the 10th International Conference on Data Integration in the Life Sciences, DILS 2014, held in Lisbon, Portugal, in July 2014. The 9 revised full papers and the 5 short papers included in this volume were carefully reviewed and selected from 20 submissions. The papers cover a range of important topics such as data integration platforms and applications; biodiversity data management; ontologies and visualization; linked data and query processing.

Microorganisms are ubiquitously present in petroleum reservoirs and the facilities that produce them. Pipelines, vessels, and other equipment used in upstream oil and gas operations provide a vast and predominantly anoxic environment for microorganisms to thrive. The biggest technical challenge resulting from microbial activity in these engineered environments is the impact on materials integrity. Oilfield microorganisms can affect materials integrity profoundly through a multitude of elusive (bio)chemical mechanisms, collectively referred to as microbiologically influenced corrosion (MIC). MIC is estimated to account for 20 to 30% of all corrosion-related costs in the oil and gas industry. This book is intended as a comprehensive reference for integrity engineers, production chemists, oilfield microbiologists, and scientists working in the field of petroleum microbiology or corrosion. Exhaustively researched by leaders from both industry and academia, this book discusses the latest technological and scientific advances as well as relevant case studies to convey to readers an understanding of MIC and its effective management.

Innovation is a translation of a new method, idea, or product into reality and profit. It is a process of connected steps that accumulates into a brand reputation required for success. Unlike Fortune 500 companies, whose projects are self-funded, a start-up must simultaneously have a value proposition that attracts a customer (for revenue), investors (for capital), and acquirers (for a liquidity event or IPO). A high percentage of start-ups fail before attaining positive cashflow, due to a variety of reasons that are detailed in this book. Avoiding the pitfalls and wrong turns are the goals of this book. Innovation, Commercialization, and Start-Ups in Life Sciences details the methodologies necessary to create a successful life science start-up from initiation to exit. Written by an expert who has worked with more nearly 500 life science start-ups, this book discusses specific processes and

investor milestones that must be navigated to align customer, funder, and acquirer needs. Successful commercialization requires attention to multiple constituents, such as investors, regulators, and customers. Investors require liquidity for their return, which is achieved through selling their stock in a public or private sale. The reader will gain an appreciation for the necessary data, partnerships, and skills needed to create a competitive and sustainable company. The author discusses such specific issues as customer problems, demonstrating sales access, and ensuring intellectual property is impervious to competitive advancement. This book is intended to be suitable for entrepreneurs, venture capitalists, and investors in both business and academic settings. These organizations have specific departments, such as R&D, operations, business development, legal, regulatory, and marketing, that would also benefit from this book. FEATURES Focuses specifically on life science start-ups Examines how to determine a company valuation and future "fundable milestones" Explores how to align regulatory and clinical strategies Discusses intellectual property derived from a university or individual through formation to exit. Reviews how start-ups must simultaneously meet the needs of multiple constituencies at once: investors, regulators, customers and exit candidates James F. Jordan is an author, consultant, and speaker. He is a Distinguished Service Professor of Healthcare & Biotechnology Management, a former Fortune 100 executive, and a managing director of a venture fund. Access the Support Material: https://healthcaredata.center/ Cover design by Sarah Mailhott.

Improving the use of evidence in teacher preparation is one of the greatest challenges and opportunities for our field. The chapters in this volume explore how data availability, quality, and use within and across preparation programs shed light on the structures, policies, and practices associated with high quality teacher preparation. Chapter authors take on critical questions about the connection between what takes place during teacher preparation and subsequent outcomes for teachers and students – which has remained a black box for too long. Despite a long history of teacher preparation in the U.S. and a considerable investment in preservice and in-service training, much is still to be learned about how pre-service preparation impacts teacher effectiveness. A strong empirical basis that informs how specific aspects of and approaches to teacher preparation relate to outcomes for graduates and their preK-12 student outcomes will provide a foundation for improved teaching and learning. Our book responds to stakeholders' collective responsibility to students and teachers to act more deliberately. Issues of data availability and quality, the uses of data for improvement, priorities for future research, and opportunities to promote evidence use in teacher preparation are discussed throughout the volume to inspire collective action to push the field towards more use of evidence. Chapters present research that uses a variety of research designs, methodologies, and data sources to explore important questions about the relationship between teacher preparation inputs and outcomes.

This book explores and analyzes the rapid pace of technological evolution in diplomatic, information, military, and economic sectors, which has contributed to a dynamic international policy environment. Global political stability is greatly influenced by innovations originating from numerous sources, including university labs, the technology sector, and military research. Collectively, these innovations guide the movement of people, ideas, and technology that in turn affect the international balance of power. The objective of this volume is to develop new insights into how the proliferation of innovative ideas, low-cost weapons, and dual-

use technologies impact the changing global security landscape. Innovative and dual-use technologies can be used for beneficial purposes or defensive purposes. Alternatively they may be appropriated or employed for nefarious purposes by hostile military powers and non-state actors alike. Such actions can threaten global security and stability. As the complexity of technological innovations continues to increase, existing control mechanisms such as international regulations and security arrangements may be insufficient to stem the tide of proliferation over time. As such, this works seeks to assess and present policy solutions to curtail the threat to global stability posed by the proliferation of weapons and dual-use technology.

Case Studies in Needs Assessment

What a Waste 2.0

273 technical questions and answers for job interview Offshore Drilling Rigs

Pathways to Scientific Impact, Public Health Improvement, and Economic Progress

The Ideas Industry

How Pessimists, Partisans, and Plutocrats are Transforming the Marketplace of Ideas

The Enlightened College Applicant

The cognitive approach to the IoT provides connectivity to everyone and everything since IoT connected devices are known to increase rapidly. When the IoT is integrated with cognitive technology, performance is improved, and smart intelligence is obtained. Discussed in this book are different types of datasets with structured content based on cognitive systems. The IoT gathers the information from the real time datasets through the internet, where the IoT network connects with multiple devices. This book mainly concentrates on providing the best solutions to existing real-time issues in the cognitive domain. Healthcare-based, cloud-based and smart transportation-based applications in the cognitive domain are addressed. The data integrity and security aspects of the cognitive computing main are also thoroughly discussed along with validated results.

Science and Faith Can—and Do—Support Each Other Science and Christianity are often presented as opposites, when in fact the order of the universe and the complexity of life powerfully testify to intelligent design. With this comprehensive resource that includes the latest research, you'll witness how the findings of scientists provide compelling reasons to acknowledge the mind and presence of a creator. Featuring more than 45 entries by top-caliber experts, you'll better understand… how scientific concepts like intelligent design are supported by evidence the scientific findings that support the history and accounts found in the Bible the biases that lead to scientific information being presented as a challenge—rather than a complement—to Christianity Whether you're looking for answers to your own questions or seeking to explain the case for intelligent design to others, The Comprehensive Guide to Science

and Faith is an invaluable apologetic tool that will help you explore and analyze the relevant facts, research, and theories in light of biblical truth.

“I thoroughly enjoyed reading this book as it has taken me on a journey through time, across the globe and through multiple disciplines. Indeed, we need to be thinking about these concepts and applying them every day to do our jobs better.” Farah Magrabi, Macquarie University, Australia “The reader will find intriguing not only the title but also the content of the book. I’m also pleased that public health, and even more specifically epidemiology has an important place in this ambitious discussion.” Elena Andresen, Oregon Health & Science University, USA “This book is very well written and addresses an important topic. It presents many reasons why basic scientists/researchers should establish collaborations and access information outside traditional means and not limit thinking but rather expand such and perhaps develop more innovative and translational research ventures that will advance science and not move it laterally.” Gerald Pepe, Eastern Virginia Medical School, USA “This book gathers logically and presents interestingly (with many examples) the qualities and attitudes a researcher must possess in order to become successful. On the long run, the deep and carefully reexamined research will be the one that lasts.” Zoltán Néda, Babeş-Bolyai University, Romania “I really liked the five pillars delineating the components of humanism in research. This book has made a major contribution to the research ethics literature.” David Fleming, University of Missouri, USA A comprehensive review of the research phase of life sciences from design to discovery with suggestions to improve innovation This vital resource explores the creative processes leading to biomedical innovation, identifies the obstacles and best practices of innovative laboratories, and supports the production of effective science. Innovative Research in Life Sciences draws on lessons from 400 award-winning scientists and research from leading universities. The book explores the innovative process in life sciences and puts the focus on how great ideas are born and become landmark scientific discoveries. The text provides a unique resource for developing professional competencies and applied skills of life sciences researchers. The book examines what happens before the scientific paper is submitted for publication or the innovation becomes legally protected. This phase is the most neglected but most exciting in the process of scientific creativity and innovation. The author identifies twelve competencies of innovative biomedical researchers that described and analyzed. This important resource: Highlights the research phase from

design to discovery that precedes innovation disclosure Offers a step by step explanation of how to improve innovation Offers solutions for improving research and innovation productivity in the life sciences Contains a variety of statistical databases and a vast number of stories about individual discoveries Includes a process of published studies and national statistics of biomedical research and reviews the performance of research labs and academic institutions Written for academics and researchers in biomedicine, pharmaceutical science, life sciences, drug discovery, pharmacology, Innovative Research in Life Sciences offers a guide to the creative processes leading to biomedical innovation and identifies the best practices of innovative scientists and laboratories.

For countless generations people have been told that their potential as humans is limited and fundamentally unequal. The social order, they have been assured, is arranged by powers beyond their control. More recently the appeal has been to biology, specifically the genes, brain sciences, the concept of intelligence, and powerful new technologies. Reinforced through the authority of science and a growing belief in bio-determinism, the ordering of the many for the benefit of a few has become more entrenched. Yet scientists are now waking up to the influence of ideology on research and its interpretation. In Genes, Brains, and Human Potential, Ken Richardson illustrates how the ideology of human intelligence has infiltrated genetics, brain sciences, and psychology, flourishing in the vagueness of basic concepts, a shallow nature-versus-nurture debate, and the overhyped claims of reductionists. He shows how ideology, more than pure science, has come to dominate our institutions, especially education, encouraging fatalism about the development of human intelligence among individuals and societies. Genes, Brains, and Human Potential goes much further: building on work being done in molecular biology, epigenetics, dynamical systems, evolution theory, and complexity theory, it maps a fresh understanding of intelligence and the development of human potential. Concluding with an upbeat message for human possibilities, this synthesis of diverse perspectives will engender new conversations among students, researchers, and other interested readers.

Darwin’s Medicine is the sequel to Brian D. Smith’s influential and critically acclaimed Future of Pharma (Gower, 2011). Whereas the earlier book predicted the evolution of the pharmaceutical market and the business models of pharmaceutical companies, Darwin’s Medicine goes much deeper into the drivers of industry change and how leading pharmaceutical and medical technology companies are adapting their strategies, structures and

capabilities in practice. Through the lens of evolutionary science, Professor Smith explores the speciation of new business models in the Life Sciences Industry. This sophisticated and highly original approach offers insights into: The mechanisms of evolution in this exceptional industry; The six great technological and social shifts that are shaping its landscape; The emergence of 26 distinct, new business models; and The lessons that enable firms to direct and accelerate their own evolution. These insights map out the industry's complex, changing landscape and provide an invaluable guide to those firms seeking to survive and thrive in this dynamic market. The book is essential reading for anyone working in or studying the pharmaceutical, medical technology and related sectors. It provides a unique and novel way of making sense of the transformation we can see going on around us and a practical, focused approach to managing a firm's evolutionary trajectory.

Critical and Cross-Disciplinary Perspectives

Plant Breeding Reviews

Improving Diagnosis in Health Care

Vibrant Architecture

Matter as a CoDesigner of Living Structures

How Business Models in the Life Sciences Industry are Evolving

The Future of Medicine Is in Your Hands

The American economy faces two deep problems: expanding innovation and raising the rate of quality job creation. Both have roots in a neglected problem: the resistance of Legacy economic sectors to innovation. While the U.S. has focused its policies on breakthrough innovations to create new economic frontiers like information technology and biotechnology, most of its economy is locked into Legacy sectors defended by technological/ economic/ political/ social paradigms that block competition from disruptive innovations that could challenge their models. Americans like to build technology "covered wagons" and take them "out west" to open new innovation frontiers; we don't head our wagons "back east" to bring innovation to our Legacy sectors. By failing to do so, the economy misses a major opportunity for innovation, which is the bedrock of U.S. competitiveness and its standard of living. Technological Innovation in Legacy Sectors uses a new, unifying conceptual framework to identify the shared features underlying structural obstacles to innovation in major Legacy sectors: energy, air and auto transport, the electric power grid, buildings, manufacturing, agriculture, health care delivery and higher education, and develops approaches to understand and transform them. It finds both strengths and obstacles to innovation in the national innovation environments - a new concept that combines the innovation system and the broader innovation context - for a group of Asian and European economies. Manufacturing is a major Legacy sector that presents a particular challenge because it is a critical stage in the innovation process. By increasingly offshoring production, the U.S. is losing important parts of its innovation capacity. "Innovate here, produce here," where the U.S. took all the gains of its strong innovation system at every stage, is being replaced by "innovate here, produce there," which threatens to lead to "produce there, innovate there." To bring innovation to Legacy sectors, authors William Bonvillian and Charles Weiss recommend that policymakers focus on all stages of innovation from research through

implementation. They should fill institutional gaps in the innovation system and take measures to address structural obstacles to needed disruptive innovations. In the specific case of advanced manufacturing, the production ecosystem can be recreated to reverse "jobless innovation" and add manufacturing-led innovation to the U.S.'s still-strong, research-oriented innovation system.

The public intellectual, as a person and ideal, has a long and storied history. Writing in venues like the New Republic and Commentary, such intellectuals were always expected to opine on a broad array of topics, from foreign policy to literature to economics. Yet in recent years a new kind of thinker has supplanted that archetype: the thought leader. Equipped with one big idea, thought leaders focus their energies on TED talks rather than highbrow periodicals. How did this shift happen? In The Ideas Industry, Daniel W. Drezner points to the roles of political polarization, heightened inequality, and eroding trust in authority as ushering in the change. In contrast to public intellectuals, thought leaders gain fame as single-idea merchants. Their ideas are often laudable and highly ambitious: ending global poverty by 2025, for example. But instead of a class composed of university professors and freelance intellectuals debating in highbrow magazines, thought leaders often work through institutions that are closed to the public. They are more immune to criticism--and in this century, the criticism of public intellectuals also counts for less. Three equally important factors that have reshaped the world of ideas have been waning trust in expertise, increasing political polarization and plutocracy. The erosion of trust has lowered the barriers to entry in the marketplace of ideas. Thought leaders don't need doctorates or fellowships to advance their arguments. Polarization is hardly a new phenomenon in the world of ideas, but in contrast to their predecessors, today's intellectuals are more likely to enjoy the support of ideologically friendly private funders and be housed in ideologically-driven think tanks. Increasing inequality as a key driver of this shift: more than ever before, contemporary plutocrats fund intellectuals and idea factories that generate arguments that align with their own. But, while there are certainly some downsides to the contemporary ideas industry, Drezner argues that it is very good at broadcasting ideas widely and reaching large audiences of people hungry for new thinking. Both fair-minded and trenchant, The Ideas Industry will reshape our understanding of contemporary public intellectual life in America and the West.

This second edition provides extensive information on the attributes of the Natural Gas Hydrate (NGH) system, highlighting opportunities for the innovative use and modification of existing technologies, as well as new approaches and technologies that have the potential to dramatically lower the cost of NGH exploration and production. Above all, the book compares the physical, environmental, and commercial aspects of the NGH system with those of other gas resources. It subsequently argues and demonstrates that natural gas can provide the least expensive energy during the transition to, and possibly within, a renewable energy future, and that NGH poses the lowest environmental risk of all gas resources. Intended as a non-mathematical, descriptive text that should be understandable to non-specialists as well as to engineers concerned with the physical characteristics of NGH reservoirs and their production, the book is written for readers at the university graduate level. It offers a valuable reference guide for environmentalists and the energy community, and includes discussions that will be of great interest to energy industry professionals, legislators, administrators, regulators, and all those concerned with energy options and their respective advantages and disadvantages.

The essential guide by one of America's leading doctors to how digital technology enables all of us to take charge of our health A trip to the doctor is almost a guarantee of misery. You'll make

an appointment months in advance. You'll probably wait for several hours until you hear "the doctor will see you now"-but only for fifteen minutes! Then you'll wait even longer for lab tests, the results of which you'll likely never see, unless they indicate further (and more invasive) tests, most of which will probably prove unnecessary (much like physicals themselves). And your bill will be astronomical. In The Patient Will See You Now, Eric Topol, one of the nation's top physicians, shows why medicine does not have to be that way. Instead, you could use your smartphone to get rapid test results from one drop of blood, monitor your vital signs both day and night, and use an artificially intelligent algorithm to receive a diagnosis without having to see a doctor, all at a small fraction of the cost imposed by our modern healthcare system. The change is powered by what Topol calls medicine's "Gutenberg moment." Much as the printing press took learning out of the hands of a priestly class, the mobile internet is doing the same for medicine, giving us unprecedented control over our healthcare. With smartphones in hand, we are no longer beholden to an impersonal and paternalistic system in which "doctor knows best." Medicine has been digitized, Topol argues; now it will be democratized. Computers will replace physicians for many diagnostic tasks, citizen science will give rise to citizen medicine, and enormous data sets will give us new means to attack conditions that have long been incurable. Massive, open, online medicine, where diagnostics are done by Facebook-like comparisons of medical profiles, will enable real-time, real-world research on massive populations. There's no doubt the path forward will be complicated: the medical establishment will resist these changes, and digitized medicine inevitably raises serious issues surrounding privacy. Nevertheless, the result-better, cheaper, and more human health care-will be worth it. Provocative and engrossing, The Patient Will See You Now is essential reading for anyone who thinks they deserve better health care. That is, for all of us.

The book deals with the complicated relationships between national security and human rights, and between public health and human rights. Its premise is the fact that national security and public health are both included in human rights instruments as 'exceptions' to the human rights therein sanctioned, yet they can arguably be considered as human rights themselves and be equally valuable. The book therefore asks to what extent the protection of the individual could – or should – be overridden to enable the protection of the national security or public health of the general public. Both practice and case law have shown that human rights risk being set aside when they clash with the protection of national security or public health. Through theoretical analysis and practical examples, the book addresses the conflicts that arise when the concepts of national security and public health are used – and abused – and other rights, including freedom of speech, procedural freedoms, individual health, are violated as a consequence. It provides many interesting findings on the values that states are ready to protect – and forego – to ensure their safety, which can contribute to the ongoing debate on the protection of human rights. This book was originally published as a special issue of The International Journal of Human Rights.

Genes, Brains, and Human Potential

Cognitive Engineering for Next Generation Computing

Digital Health

Data Integration in the Life Sciences

A Global Snapshot of Solid Waste Management to 2050

A Guide for Early Childhood Educators

The Science and Ideology of Intelligence

From 2013 to 2015, over 11,000 people across West Africa lost their lives to the deadliest outbreak of the Ebola virus in history. Crucially, this epidemic

marked the first time the virus was able to spread beyond rural areas to major cities, overturning conventional assumptions about its epidemiology. With backgrounds ranging from development to disease control, the contributors to this volume - some of them based in countries affected by the Ebola epidemic - consider the underlying factors that shaped this unprecedented outbreak. While championing the heroic efforts of local communities and aid workers in halting the spread of the disease, the contributors also reveal deep structural problems in both the countries and humanitarian agencies involved, which hampered the efforts to contain the epidemic. Alarmingly, they show that little has been learned from these events, with health provision remaining underfunded and poorly equipped to deal with future outbreaks. Such issues, they argue, reflect the wider challenges we face in tackling epidemic disease in an increasingly interconnected world.

The rise of digital health technologies is, for some, a panacea to many of the medical and public health challenges we face today. This is the first book to articulate a critical response to the techno-utopian and entrepreneurial vision of the digital health phenomenon. Deborah Lupton, internationally renowned for her scholarship on the sociocultural and political aspects of medicine and health as well as digital technologies, addresses a range of compelling issues about the interests digital health represents, and its unintended effects on patients, doctors and how we conceive of public health and healthcare delivery. Bringing together social and cultural theory with empirical research, the book challenges apolitical approaches to examine the impact new technologies have on social justice, and the implication for social and economic inequalities. Lupton considers how self-tracking devices change the patient-doctor relationship, and how the digitisation and gamification of healthcare through apps and other software affects the way we perceive and respond to our bodies. She asks which commercial interests enable different groups to communicate more widely, and how the personal data generated from digital encounters are exploited. Considering the lived experience of digital health technologies, including their emotional and sensory dimensions, the book also assesses their broader impact on medical and public health knowledges, power relations and work practices. Relevant to students and researchers interested in medicine and public health across sociology, psychology, anthropology, new media and cultural studies, as well as policy makers and professionals in the field, this is a timely contribution on an important issue.

Deluged with messages that range from “It’s Ivy League or bust” to “It doesn’t matter where you go,” college applicants and their families often find themselves lost, adrift in a sea of information overload. Finally—a worthy life preserver has arrived. The Enlightened College Applicant presents a no-nonsense account of how students should approach the college search and admissions process. Instead of providing recycled entrance statistics or anecdotal generalizations about campus life, authors Belasco and Bergman

incorporate cutting-edge data and research to pull back the curtain on critical topics such as: Whether college prestige really matters, How to maximize your college admission prospects Which schools and degrees provide the best return on investment How to minimize the costs of a college education What college-related skills are valued in the job market, and much more. Whether you are a valedictorian or a B/C student, this easy-to-read book will improve your college savvy and enable you to maximize the benefits of your higher education.

By 2050 the world's population is projected to grow by one-third, reaching between 9 and 10 billion. With globalization and expected growth in global affluence, a substantial increase in per capita meat, dairy, and fish consumption is also anticipated. The demand for calories from animal products will nearly double, highlighting the critical importance of the world's animal agriculture system. Meeting the nutritional needs of this population and its demand for animal products will require a significant investment of resources as well as policy changes that are supportive of agricultural production. Ensuring sustainable agricultural growth will be essential to addressing this global challenge to food security. Critical Role of Animal Science Research in Food Security and Sustainability identifies areas of research and development, technology, and resource needs for research in the field of animal agriculture, both nationally and internationally. This report assesses the global demand for products of animal origin in 2050 within the framework of ensuring global food security; evaluates how climate change and natural resource constraints may impact the ability to meet future global demand for animal products in sustainable production systems; and identifies factors that may impact the ability of the United States to meet demand for animal products, including the need for trained human capital, product safety and quality, and effective communication and adoption of new knowledge, information, and technologies. The agricultural sector worldwide faces numerous daunting challenges that will require innovations, new technologies, and new ways of approaching agriculture if the food, feed, and fiber needs of the global population are to be met. The recommendations of Critical Role of Animal Science Research in Food Security and Sustainability will inform a new roadmap for animal science research to meet the challenges of sustainable animal production in the 21st century.

The job interview is probably the most important step you will take in your job search journey. Because it's always important to be prepared to respond effectively to the questions that employers typically ask at a job interview Petrogav International has prepared this eBooks that will help you to get a job in oil and gas industry. Since these questions are so common, hiring managers will expect you to be able to answer them smoothly and without hesitation. This eBook contains 273 questions and answers for job interview and as a BONUS 230 links to video movies. This course covers aspects like HSE, Process, Mechanical, Electrical and Instrumentation & Control that will enable you to apply for any position in the Oil and Gas Industry.

Critical Role of Animal Science Research in Food Security and Sustainability
Vietnam, My Deliverance; Traumatic Stress, My Salvation
Varcarolis' Foundations of Psychiatric-Mental Health Nursing - E-Book
Proliferation of Weapons- and Dual-Use Technologies
Understanding West Africas Ebola Epidemic
Innovation, Commercialization, and Start-Ups in Life Sciences
Research Handbook on Intellectual Property and the Life Sciences

Case Studies in Needs Assessment offers insights about the practice of needs assessment in dynamic, real-world organizations and communities. This book invites both novice and seasoned analysts to look over the shoulders of practitioners, to examine needs assessment practice in action, to grasp the real-world issues that arise, and to understand a variety of needs assessment strategies and challenges. Each case in this book examines the implementation of needs assessment in a specific situation, bridging needs assessment theories and actual practice. The book is organized around five major approaches: knowledge and skill assessment, job and task analysis, competency assessment, strategic needs assessment, and complex needs assessment. The last chapter summarizes lessons learned from all the case studies: it describes the insights and tricks of the trade that Darlene Russ-Eft and Catherine Sleezer gained from commissioning and reviewing these cases.

Data Integration in the Life Sciences10th International Conference, DILS 2014, Lisbon, Portugal, July 17-18, 2014. ProceedingsSpringer

Getting the right diagnosis is a key aspect of health care - it provides an explanation of a patient's health problem and informs subsequent health care decisions. The diagnostic process is a complex, collaborative activity that involves clinical reasoning and information gathering to determine a patient's health problem. According to Improving Diagnosis in Health Care, diagnostic errors-inaccurate or delayed diagnoses-persist throughout all settings of care and continue to harm an unacceptable number of patients. It is likely that most people will experience at least one diagnostic error in their lifetime, sometimes with devastating consequences. Diagnostic errors may cause harm to patients by preventing or delaying appropriate treatment, providing unnecessary or harmful treatment, or resulting in psychological or financial repercussions. The committee concluded that improving the diagnostic process is not only possible, but also represents a moral, professional, and public health imperative. Improving Diagnosis in Health Care, a continuation of the landmark Institute of Medicine reports To Err Is Human (2000) and Crossing the Quality Chasm (2001), finds that diagnosis-and, in particular, the occurrence of diagnostic errorsâ€"has been largely unappreciated in efforts to improve the quality and safety of health care. Without a dedicated focus on improving diagnosis, diagnostic errors will likely worsen as the delivery of health care and the diagnostic process continue to increase in complexity. Just as the diagnostic process is a collaborative activity, improving diagnosis will require collaboration and a widespread commitment to change among health care professionals, health care organizations, patients and their families, researchers, and policy makers. The recommendations of Improving Diagnosis in Health Care contribute to the growing momentum for change in this crucial area of health care

quality and safety.

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This volumes presents the proceedings of ICIBEL 2015, organized by the Centre for Innovation in Medical Engineering (CIME) under Innovative Technology Research Cluster, University of Malaya. It was held in Kuala Lumpur, Malaysia, from 6-8 December 2015. The ICIBEL 2015 conference promotes the latest researches and developments related to the integration of the Engineering technology in medical fields and life sciences. This includes the latest innovations, research trends and concerns, challenges and adopted solution in the field of medical engineering and life sciences.

Exploration and Production of Oceanic Natural Gas Hydrate

Critical Factors for Commercialization

The Trouble with Doctors:

The Patient Will See You Now

A Biblical, Systematic, and Reformational Theology for People with Traumatic Stress (P.T.S.D.)

ICIBEL2015, 6-8 December 2015, Putrajaya, Malaysia

Dual-use life science research and biosecurity in the 21st Century: Social, Technical, Policy, and Ethical Challenges

"I spend all my time with this kid!" is a typical teacher complaint when challenged by a young child who disrupts the classroom with rebellious, impulsive, worrisome or odd behaviors. It is vital that teachers gain the skills to holistically decipher and respond to these complex classroom situations. By addressing the underlying meanings that motivate children's behaviors, teachers increase the opportunity for change within the classroom setting Focusing on communication, this book discusses practical ways to apply child developmental theories to help address common classroom situations, problems, and worries. It identifies new frameworks and rationales, such as the troubling child, the testing child, the worrying child, and the hiding child; describes the unique aspects of these children's communication; and offers an easy-to-use language for successful teacher intervention. It also provides an adaptable, week-by-week planning and intervention structure as a way of creating some balance between practicality and theory.

This book sets out the conditions under which the need for a new approach to the production of architecture in the twenty-first century is established, where our homes and cities are facing increasing pressures from environmental challenges that are compromising our lives and well being. Vibrant architecture embodies a new kind of

architectural design practice that explores how lively materials, or 'vibrant matter', may be incorporated into our buildings to confer on them some of the properties of living things, such as movement, growth, sensitivity and self-repair. The theoretical and practical implications of how this may occur are explored through the application of a new group of materials. Characteristically, these substances possess some of the properties of living systems but may not have the full status of being truly alive. They include forms of chemical artificial life such as 'dynamic droplets' or synthetically produced soils. As complex systems, they are able to communicate directly with the natural world using a shared language of chemistry and so, negotiate their continued survival in a restless world. Vibrant architecture may create new opportunities for architectural design practice that venture beyond top-down form-finding programs, by enabling architects to co-design in partnership with human and nonhuman collectives, which result from the production of post natural landscapes. Ultimately, vibrant architecture may operate as an ecological platform for human development that augments the liveliness of our planet, rather than diminishes it.

Post-traumatic stress disorder is both a gift and tool in God’s hands. The Lord has designed a person’s brain to adjust to the rigors of combat or abuse. Combat’s despair can also drive us to Christ. Jim Carmichael, Ph.D. looks back at his service in Vietnam and how it impacted his life upon returning home in this book. More importantly, he reveals how God led him to find redemption, obedience to God, and transformation into the image of Jesus Christ through suffering. In sharing his story, the author seeks to answer questions such as: · What is the purpose of PTSD? · Why don’t all combatants suffer from PTSD? · How can God deliver individuals from bondage? · What can be done to prevent PTSD victims from dying by suicide? The author stresses that the Veterans Administration should do more to teach veterans and their families about how the brain changes when it’s subjected to constant stress. He also highlights how combatants throughout history have been impacted by stress. Join the author as he praises and thanks God for using the horrors of Vietnam to drive him to Christ.

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Intellectual property (IP) is a key component of the life sciences, one of the most dynamic and innovative fields of technology today. At the same time, the relationship between IP and the life sciences raises new public policy dilemmas. The Research Handbook on Intellectual Property and the Life Sciences comprises contributions by leading experts from academia and industry to provide in-depth analyses of key topics including pharmaceuticals, diagnostics and genes, plant innovations, stem cells, the role of competition law and access to medicines. The Research Handbook focuses on the relationship between IP and the life sciences in Europe and the United States,

complemented by country-specific case studies on Australia, Brazil, China, India, Japan, Kenya, South Africa and Thailand to provide a truly international perspective.
Microbiologically Influenced Corrosion in the Upstream Oil and Gas Industry
Technological Innovation in Legacy Sectors
150 technical questions and answers for job interview Offshore Drilling Rigs
Darwin's Medicine
National Security, Public Health: Exceptions to Human Rights?
Interpreting and Responding to Classroom Behaviors
Job interview questions and answers for employment on Offshore Oil & Gas Platforms
Spatial Modeling in GIS and R for Earth and Environmental Sciences offers an integrated approach to spatial modelling using both GIS and R. Given the importance of Geographical Information Systems and geostatistics across a variety of applications in Earth and Environmental Science, a clear link between GIS and open source software is essential for the study of spatial objects or phenomena that occur in the real world and facilitate problem-solving. Organized into clear sections on applications and using case studies, the book helps researchers to more quickly understand GIS data and formulate more complex conclusions. The book is the first reference to provide methods and applications for combining the use of R and GIS in modeling spatial processes. It is an essential tool for students and researchers in earth and environmental science, especially those looking to better utilize GIS and spatial modeling. Offers a clear, interdisciplinary guide to serve researchers in a variety of fields, including hazards, land surveying, remote sensing, cartography, geophysics, geology, natural resources, environment and geography Provides an overview, methods and case studies for each application Expresses concepts and methods at an appropriate level for both students and new users to learn by example
Breaking In
Linking Teacher Preparation Program Design and Implementation to Outcomes for Teachers and Students
A New Approach to the Search and Admissions Process
Innovative Research in Life Sciences

10th International Conference, DILS 2014, Lisbon, Portugal, July 17-18, 2014. Proceedings