

Inadequate Equilibria Where And How Civilizations Get Stuck

Why is life the way it is? Bacteria evolved into complex life just once in four billion years of life on earth-and all complex life shares many strange properties, from sex to ageing and death. If life evolved on other planets, would it be the same or completely different? In *The Vital Question*, Nick Lane radically reframes evolutionary history, putting forward a cogent solution to conundrums that have troubled scientists for decades. The answer, he argues, lies in energy: how all life on Earth lives off a voltage with the strength of a bolt of lightning. In unravelling these scientific enigmas, making sense of life's quirks, Lane's explanation provides a solution to life's vital questions: why are we as we are, and why are we here at all? This is ground-breaking science in an accessible form, in the tradition of Charles Darwin's *The Origin of Species*, Richard Dawkins' *The Selfish Gene*, and Jared Diamond's *Guns, Germs and Steel*.

The General Theory of Employment, Interest, and Money, written by legendary author John Maynard Keynes is widely considered to be one of the top 100 greatest books of all time. This masterpiece was published right after the Great Depression. It sought to bring about a revolution, commonly referred to as the 'Keynesian Revolution', in the way economists thought—especially challenging the proposition that a market economy tends naturally to restore itself to full employment on its own. Regarded widely as the cornerstone of Keynesian thought, this book challenged the established classical economics and introduced new concepts. 'The General Theory of Employment, Interest, and Money' transformed economics and changed the face of modern macroeconomics. Keynes' argument is based on the idea that the level of employment is not determined by the price of labour, but by the spending of money. It gave way to an entirely new approach where employment, inflation and the market economy are concerned.

This survey examines the vibrant academic literature on environmental, social, and governance (ESG) investing. While there is no consensus on the exact list of ESG issues, responsible investors increasingly assess stocks in their portfolios based on nonfinancial data on environmental impact (e.g., carbon emissions), social impact (e.g., employee satisfaction), and governance attributes (e.g., board structure). The objective is to reduce exposure to investments that pose greater ESG risks or to influence companies to become more sustainable. One active area of research at present involves assessing portfolio risk exposure to climate change. This literature review focuses on institutional investors, which have grown in importance such that they have now become the largest holders of shares in public companies globally. Historically, institutional investors tended to concentrate their ESG efforts mostly on corporate governance (the "G" in ESG). These efforts included seeking to eliminate provisions that restrict shareholder rights and enhance managerial power, such as staggered boards, supermajority rules, golden parachutes, and poison pills. Highlights from this section: · There is no consensus on the exact list of ESG issues and their materiality. · The ESG issue that gets the most attention from institutional investors is climate change, in particular their portfolio companies' exposure to carbon risk and "stranded assets." · Investors should be positioning themselves for increased regulation, with the regulatory agenda being more ambitious in the European Union than in the United States. Readers might come away from this survey skeptical about the potential for ESG investing to affect positive change. I prefer to characterize the current state of the literature as having a "healthy dose of skepticism," with much more remaining to be explored. Here, I hope the reader comes away with a call to action. For the industry practitioner, I believe that the investment industry should strive to achieve positive societal goals. CFA Institute provides an exemplary case in its *Future of Finance* series (www.cfainstitute.org/research/future-finance). For the academic community, I suggest we ramp up research aimed at tackling some of the open questions around the pressing societal goals of ESG investing. I am optimistic that practitioners and academics will identify meaningful ways to better harness the power of global financial markets for addressing the pressing ESG issues facing our society.

Inadequate Equilibria (Draft Version)Where and How Civilizations Get StuckInadequate EquilibriaWhere and How Civilizations Get Stuck

The Art of Failure

A Girl Corrupted by the Internet Is the Summoned Hero?!

A Radical Rethinking of the Way to Fight Global Poverty

Behavioral Finance: The Second Generation

Human Dimension & Interior Space

The General Theory of Employment, Interest, and Money

ESG and Responsible Institutional Investing Around the World: A Critical Review

Revolutions have shaped world politics for the last three hundred years. This volume shows why revolutions occur, how they unfold, and where they created democracies and dictatorships. Jack A. Goldstone presents the history of revolutions from America and France to the collapse of the Soviet Union, 'People Power' revolutions, and the Arab revolts.

*Human intelligence is a superweapon: an amazing capacity that has single-handedly put humans in a dominant position on Earth. When human intelligence defeats itself and goes off the rails, the fallout therefore tends to be a uniquely big deal. In *How to Actually Change Your Mind*, decision theorist Eliezer Yudkowsky asks how we can better identify and sort out our biases, integrate new evidence, and achieve lucidity in our daily lives. Because it really seems as though we should be able to do better--and a three-pound all-purpose superweapon is a terrible thing to waste.*

An award-winning professor of economics at MIT and a Harvard University political scientist and economist evaluate the reasons that some nations are poor while others succeed, outlining provocative

perspectives that support theories about the importance of institutions.

Mechanical Engineer's Reference Book, 12th Edition is a 19-chapter text that covers the basic principles of mechanical engineering. The first chapters discuss the principles of mechanical engineering, electrical and electronics, microprocessors, instrumentation, and control. The succeeding chapters deal with the applications of computers and computer-integrated engineering systems; the design standards; and materials' properties and selection. Considerable chapters are devoted to other basic knowledge in mechanical engineering, including solid mechanics, tribology, power units and transmission, fuels and combustion, and alternative energy sources. The remaining chapters explore other engineering fields related to mechanical engineering, including nuclear, offshore, and plant engineering. These chapters also cover the topics of manufacturing methods, engineering mathematics, health and safety, and units of measurements. This book will be of great value to mechanical engineers.

Map and Territory

Why Nations Fail

The Vital Question

Black Death

The Great Mental Models: General Thinking Concepts

The Equilibrium Model

Strategic Theory for the 21st Century: The Little Book on Big Strategy

Originally published in 1979, this study deals on a fully comprehensive level with both passenger and freight travel. The 40 chapters deal with an extensive range of related topics, including equilibrium modelling, theoretical and conceptual developments in demand modelling, goods movement and forecasting and policy. It outlines approaches to understanding travel behaviour, which move beyond the individual choice theory towards a broader consideration of activities.

This book brings together the author's pioneering work, written over the last twenty years, on the use of differential methods in general equilibrium theory.

From the initial observation of proton magnetic resonance in water and in paraffin, the discipline of nuclear magnetic resonance has seen unparalleled growth as an analytical method. Modern NMR spectroscopy is a highly developed, yet still evolving, subject which finds application in chemistry, biology, medicine, materials science and geology. In this book, emphasis is on the more recently developed methods of solution-state NMR applicable to chemical research, which are chosen for their wide applicability and robustness. These have, in many cases, already become established techniques in NMR laboratories, in both academic and industrial establishments. A considerable amount of information and guidance is given on the implementation and execution of the techniques described in this book.

Annotation This textbook and reference outlines the principles and applications of thermodynamics in geochemistry.

Regulation of Tissue Oxygenation, Second Edition

Globalization and Its Discontents

Pope Francis and the Future of Catholicism

The Money Illusion

The Theory of General Economic Equilibrium

Inadequate Equilibria (Draft Version)

High-resolution NMR Techniques in Organic Chemistry

When should you think that you may be able to do something unusually well? If you're trying to advance a scientific field - or start the next Facebook - or just get a really good deal buying cheap electronics from Hong Kong - then it's important that you have a sober understanding of your competencies, and the competencies of others. The story only ends there, however, if you're fortunate enough to live in an adequate civilization. Inadequate Equilibria is a sharp and lively guidebook for anyone questioning when and how they can know better, and do better, than the status quo. Freely mixing debates on the foundations of rational decision-making with tips for everyday life, Eliezer Yudkowsky explores the central question of when we can (and can't) expect to spot systemic inefficiencies and opportunities to "beat the market."

Multiagent systems combine multiple autonomous entities, each having diverging interests or different information. This overview of the field offers a computer science perspective, but also draws on ideas from game theory, economics, operations research, logic, philosophy and linguistics. It will serve as a reference for researchers in each of these fields, and be used as a text for advanced undergraduate or graduate courses. The authors emphasize foundations to create a broad and rigorous treatment of their subject, with thorough presentations of distributed problem solving, game theory, multiagent communication and learning, social choice, mechanism design, auctions, cooperative game theory, and modal logics of knowledge and belief. For each topic, basic concepts are introduced, examples are given, proofs of key results are offered, and algorithmic considerations are examined. An appendix covers background material in probability theory, classical logic, Markov decision processes and mathematical programming.

When human brains try to do things, they can run into some very strange problems. Self-deception, confirmation bias, magical thinking-it sometimes seems our ingenuity is boundless when it comes to shooting ourselves in the foot. In *Map and Territory*, decision theorist Eliezer Yudkowsky asks what a "martial art" of rationality would look like, beginning with the basic fighting stance-the orientation toward the world that lets us get the most bang for our cognitive buck, that best positions us to understand and react to brains' strange acts of self-destruction.

The goal is to address the guilt that comes from a feeling of listlessness, the vague feeling of guilt that one might get when they play video games all day, or when they turn desperately towards drugs or parties, in attempts to silence the part of themselves that whispers that there must be something else to life. This sort of guilt cannot be removed by force of will, in most people. The trick to removing this sort of guilt, I think, is to start exploring that feeling that there must be something else to life, that there must be something more to do---and either find something worth working towards, or find that there really isn't actually anything missing. This first sort of listless guilt, I think, comes from someone who wants to find something else to do, and hasn't yet. Unfortunately, addressing this sort of guilt isn't as easy as just finding a hobby. In my experience, this listless guilt tends to be found in people who have fallen into the nihilistic trap---people who either believe they can't matter, or who believe that no one can matter. It tends to be found in people who believe that humans only ever do what they want, that nothing is truly "better" than anything else, that there is no such thing as altruism, that "morality" is a pleasant lie---that class of beliefs is the class that I will address first, starting with the *Allegory of the Stamp Collector*...

Uprooting Capitalism and Democracy for a Just Society

Democracy, Expertise, and Academic Freedom

Why Is Life the Way It Is?

Essays by the LessWrong Community

Revolutions: A Very Short Introduction

Thermodynamics in Geochemistry

Behavioural Travel Modelling

Standards for the design of interior spaces should be based on the measurement of human beings and their perception of space, with special consideration for disabled, elderly, and children. Decades of research have demonstrated that the parent-child dyad and the environment of the family â €"which includes all primary caregivers â €"are at the foundation of children's well-being and healthy development. From birth, children are learning and rely on parents and the other caregivers in their lives to protect and care for them. The impact of parents may never be greater than during the earliest years of life, when a child's brain is rapidly developing and when nearly all of her or his experiences are created and shaped by parents and the family environment. Parents help children build and refine their knowledge and skills, charting a trajectory for their health and well-being during childhood and beyond. The experience of parenting also impacts parents themselves. For instance, parenting can enrich and give focus to parents' lives; generate stress or calm; and create any number of emotions, including feelings of happiness, sadness, fulfillment, and anger. Parenting of young children today takes place in the context of significant ongoing developments. These include: a rapidly growing body of science on early childhood, increases in funding for programs and services for families, changing demographics of the U.S. population, and greater diversity of family structure. Additionally, parenting is increasingly being shaped by technology and increased access to information about parenting. *Parenting Matters* identifies parenting knowledge, attitudes, and practices associated with positive developmental outcomes in children ages 0-8; universal/preventive and targeted strategies used in a variety of settings that have been effective with parents of young children and that support the identified knowledge, attitudes, and practices; and barriers to and facilitators for parents' use of practices that lead to healthy child outcomes as well as their participation in effective programs and services. This report makes recommendations directed at an array of stakeholders, for promoting the wide-scale adoption of effective programs and services for parents and on areas that warrant further research to inform policy and practice. It is meant to serve as a roadmap for the future of parenting policy, research, and practice in the United States.

"After years of debate and inquiry, the key to a great marriage remained shrouded in mystery. Until now..."—Carol Dweck, author of *Mindset: The New Psychology of Success* Eli J. Finkel's insightful and ground-breaking investigation of marriage clearly shows that the best marriages today are better than the best marriages of earlier eras. Indeed, they are the best marriages the world has ever known. He presents his findings here for the first time in this lucid, inspiring guide to modern marital bliss. *The All-or-Nothing Marriage* reverse engineers fulfilling marriages—from the "traditional" to the utterly nontraditional—and shows how any marriage can be better. The primary function of marriage from 1620 to 1850 was food, shelter, and protection from violence; from 1850 to 1965, the purpose revolved around love and companionship. But today, a new kind of marriage has emerged, one oriented toward self-discovery, self-esteem, and personal growth. Finkel combines cutting-edge scientific research with practical advice; he considers paths to better communication and responsiveness; he offers guidance on when to recalibrate our expectations; and he even introduces a set of must-try "lovehacks." This is a book for the newlywed to the empty nester, for those thinking about getting married or remarried, and for anyone looking for illuminating advice that will make a real difference to getting the most out of marriage today.

This powerful, unsettling book gives us a rare glimpse behind the closed doors of global financial institutions by the winner of the 2001 Nobel Prize in Economics. When it was first published, this national bestseller quickly became a touchstone in the globalization debate. Renowned economist and Nobel Prize winner Joseph E. Stiglitz had a ringside seat for most of the major economic events of the last decade, including stints as chairman of the Council of Economic Advisers and chief economist at the World Bank. Particularly concerned with the plight of the developing nations, he became increasingly disillusioned as he saw the International Monetary Fund and other major institutions put the interests of Wall Street and the financial community ahead of the poorer nations. Those seeking to understand why globalization has engendered the hostility of protesters in Seattle and Genoa will find the reasons here. While this book includes no simple formula on how to make globalization work, Stiglitz provides a reform agenda that will provoke debate for years to come. Rarely do we get such an insider's analysis of the major institutions of globalization as in this penetrating book. With a new foreword for this paperback edition.

A Farewell to Alms

To Change the Church

Parenting Matters

Market Monetarism, the Great Recession, and the Future of Monetary Policy

A Political Life

The Engines of Cognition

The old saying goes, "To the man with a hammer, everything looks like a nail." But anyone who has done any kind of project knows a hammer often isn't enough. The more tools you have at your disposal, the more likely you'll use the right tool for the job - and get it done right. The same is true when it comes to your thinking. The quality of your outcomes depends on the mental models in your head. And most people are going through life with little more than a hammer. Until now. The Great Mental Models: General Thinking Concepts is the first book in The Great Mental Models series designed to upgrade your thinking with the best, most useful and powerful tools so you always have the right one on hand. This volume details nine of the most versatile, all-purpose mental models you can use right away to improve your decision making, productivity, and how clearly you see the world. You will discover what forces govern the universe and how to focus your efforts so you can harness them to your advantage, rather than fight with them or worse yet- ignore them. Upgrade your mental toolbox and get the first volume today. AUTHOR BIOGRAPHY Farnam Street (FS) is one of the world's fastest growing websites, dedicated to helping our readers master the best of what other people have already figured out. We curate, examine and explore the timeless ideas and mental models that history's brightest minds have used to live lives of purpose. Our readers include students, teachers, CEOs, coaches, athletes, artists, leaders, followers, politicians and more. They're not defined by gender, age, income, or politics but rather by a shared passion for avoiding problems, making better decisions, and lifelong learning. AUTHOR HOME Ottawa, Ontario, Canada

Why has an economy that has done so many things right failed to grow fast? Under-Rewarded Efforts traces Mexico's disappointing growth to flawed microeconomic policies that have suppressed productivity growth and nullified the expected benefits of the country's reform efforts. Fast growth will not occur doing more of the same or focusing on issues that may be key bottlenecks to productivity growth elsewhere, but not in Mexico. It will only result from inclusive institutions that effectively protect workers against risks, redistribute towards those in need, and simultaneously align entrepreneurs' and workers' incentives to raise productivity.

A fascinating work of detective history, The Black Death traces the causes and far-reaching consequences of this infamous outbreak of plague that spread across the continent of Europe from 1347 to 1351. Drawing on sources as diverse as monastic manuscripts and dendrochronological studies (which measure growth rings in trees), historian Robert S. Gottfried demonstrates how a bacillus transmitted by rat fleas brought on an ecological reign of terror -- killing one European in three, wiping out entire villages and towns, and rocking the foundation of medieval society and civilization.

Is it possible that the consensus around what caused the 2008 Great Recession is almost entirely wrong? It's happened before. Just as Milton Friedman and Anna Schwartz led the economics community in the 1960s to reevaluate its view of what caused the Great Depression, the same may be happening now to our understanding of the first economic crisis of this century. Foregoing the usual relitigating of the problems of housing markets and banking crises, renowned monetary economist Scott Sumner argues that the Great Recession came down to one thing: nominal GDP, the sum of all nominal spending in the economy, which the Federal Reserve erred in allowing to plummet. The Money Illusion is an end-to-end case for this school of thought, known as market monetarism, written by its leading voice in economics. Based almost entirely on standard macroeconomic concepts, this highly accessible text lays a groundwork for a simple yet fundamentally radical understanding of how monetary policy can work best: providing a stable environment for a market economy to flourish.

Algorithmic, Game-Theoretic, and Logical Foundations

The Elusive Quest for Prosperity in Mexico

Poor Economics

How the Application-Centric Mindset is Hobbling our Enterprises

Where and How Civilizations Get Stuck

Discrete Choice Methods with Simulation

Minding Our Way

The winners of the Nobel Prize in Economics upend the most common assumptions about how economics works in this gripping and disruptive portrait of how poor people actually live. Why do the poor borrow to save? Why do they miss out on free life-saving immunizations, but pay for unnecessary drugs? In Poor Economics, Abhijit V. Banerjee and Esther Duflo, two award-winning MIT professors, answer these questions based on years of field research from around the world. Called "marvelous, rewarding" by the Wall Street Journal, the book offers a radical rethinking of the economics of poverty and an intimate view of life on 99 cents a day. Poor Economics shows that creating a world without poverty begins with understanding the daily decisions facing the poor.

Know what's causing application development waste so you can turn the tide. This is the book your Systems Integrator and your Application Software vendor don't want you to read.

Enterprise IT (Information Technology) is a \$3.8 trillion per year industry worldwide. Most of it is waste. We've grown used to projects costing tens of millions or even billions of dollars, and routinely running over budget and schedule many times over. These overages in both time and money are almost all wasted resources. However, the waste is hard to see, after being so marbled through all the products, processes, and guiding principles. That is what this book is about. We must see, understand, and agree about the problem before we can take coordinated action to address it. The trajectory of this book is as follows: In Chapter 1, we explore how bad the current state is. The three industries that address software waste are discussed, including the legacy software industry, neo-legacy software industry, and legacy modernization industry. Examples of application waste are illustrated from both public and private sectors. In Chapter 2, we explore the economics of the software industry. Although the economic tradeoffs are changing at the speed of Moore's Law, our approaches are not keeping pace. Learn how information systems really behave in terms of actual application development. In Chapter 3 we use "root cause analysis" to reveal the real contributors to this situation, which are dependency, redundancy, complexity, and application centricity. Chapter 4 recounts the many failed attempts we've made in the past to deal with information system complexity, including relational databases, ERP systems, enterprise data modeling, service oriented architectures, and APIs, Agile, data warehouse and business intelligence, outsourcing and offshoring, cloud, Software as a Service (SaaS), data lakes, machine learning, and artificial intelligence. Chapter 5 dismantles seven fallacies that contribute to our remaining stuck. For example, the first fallacy is "We need detailed requirements or we won't get what we want." The quagmire is not affecting all sectors of the economy equally. Chapter 6 looks at how this is playing out in the government and private sectors, large and small companies, and various parts of the IT industry itself. Chapter 7 outlines some action you can take now to begin to extricate yourself, including a detailed assessment and defining metrics for measuring and preventing software development waste.

This book describes the new generation of discrete choice methods, focusing on the many advances that are made possible by simulation. Researchers use these statistical methods to examine the choices that consumers, households, firms, and other agents make. Each of the major models is covered: logit, generalized extreme value, or GEV (including nested and cross-nested logits), probit, and mixed logit, plus a variety of specifications that build on these basics. Simulation-assisted estimation procedures are investigated and compared, including maximum simulated likelihood, method of simulated moments, and method of simulated scores. Procedures for drawing from densities are described, including variance reduction techniques such as anithetics and Halton draws. Recent advances in Bayesian procedures are explored, including the use of the Metropolis-Hastings algorithm and its variant Gibbs sampling. The second edition adds chapters on endogeneity and expectation-maximization (EM) algorithms. No other book incorporates all these fields, which have arisen in the past 25 years. The procedures are applicable in many fields, including energy, transportation, environmental studies, health, labor, and marketing. This presentation describes various aspects of the regulation of tissue oxygenation, including the roles of the circulatory system, respiratory system, and blood, the carrier of oxygen within these components of the cardiorespiratory system. The respiratory system takes oxygen from the atmosphere and transports it by diffusion from the air in the alveoli to the blood flowing through the pulmonary capillaries. The cardiovascular system then moves the oxygenated blood from the heart to the microcirculation of the various organs by convection, where oxygen is released from hemoglobin in the red blood cells and moves to the parenchymal cells of each tissue by diffusion. Oxygen that has diffused into cells is then utilized in the mitochondria to produce adenosine triphosphate (ATP), the energy currency of all cells. The mitochondria are able to produce ATP until the oxygen tension or PO₂ on the cell surface falls to a critical level of about 4-5 mm Hg. Thus, in order to meet the energetic needs of cells, it is important to maintain a continuous supply of oxygen to the mitochondria at or above the critical PO₂. In order to accomplish this desired outcome, the cardiorespiratory system, including the blood, must be capable of regulation to ensure survival of all tissues under a wide range of circumstances. The purpose of this presentation is to provide basic information about the operation and regulation of the cardiovascular and respiratory systems, as well as the properties of the blood and parenchymal cells, so that a fundamental understanding of the regulation of tissue oxygenation is achieved.

Replacing Guilt

A Brief Economic History of the World

The Origins of Power, Prosperity, and Poverty

Lord Liverpool

Iron Chelation Therapy

Software Wasteland

Inadequate Equilibria

This third edition covers topics in physics as they apply to the life sciences, specifically medicine, physiology, nursing and other applied health fields. It includes many f examples and illustrative problems and appendices which provide convenient access to the most important concepts of mechanics, electricity, and optics.

A leading American legal scholar offers a surprising account of the incompleteness of prevailing theories of freedom of speech. Robert C. Post shows that the familiar understanding of the First Amendment, which stresses the "marketplace of ideas" and which holds that "everyone is entitled to an opinion," is inadequate to create an the expert knowledge that is necessary for a modern democracy to thrive. For a modern society reliably to answer such questions as whether nicotine causes cancer, and open exchange of ideas must be complemented by standards of scientific competence and practice that are both hierarchical and judgmental. Post develops a the Amendment rights that seeks to explain both the need for the free formation of public opinion and the need for the distribution and creation of expertise. Along the w new and useful account of constitutional doctrines of academic freedom. These doctrines depend both upon free expression and the necessity of the kinds of profess judgment that universities exercise when they grant or deny tenure, or that professional journals exercise when they accept or reject submissions.

Behavioral finance presented in this book is the second-generation of behavioral finance. The first generation, starting in the early 1980s, largely accepted standard fir

notion of people's wants as "rational" wants—restricted to the utilitarian benefits of high returns and low risk. That first generation commonly described people as "irrational"—succumbing to cognitive and emotional errors and misled on their way to their rational wants. The second generation describes people as normal. It begins acknowledging the full range of people's normal wants and their benefits—utilitarian, expressive, and emotional—distinguishes normal wants from errors, and offers guidance using shortcuts and avoiding errors on the way to satisfying normal wants. People's normal wants include financial security, nurturing children and families, gaining high status, and staying true to values. People's normal wants, even more than their cognitive and emotional shortcuts and errors, underlie answers to important questions including saving and spending, portfolio construction, asset pricing, and market efficiency.

Within the last few years, iron research has yielded exciting new insights into the understanding of normal iron homeostasis. However, normal iron physiology offers protection from the toxic effects of pathological iron accumulation, because nature did not equip us with effective mechanisms of iron excretion. Excess iron may be effectively removed by phlebotomy in hereditary hemochromatosis, but this method cannot be applied to chronic anemias associated with iron overload. In these diseases, iron chelating therapy is the only method available for preventing early death caused mainly by myocardial and hepatic iron toxicity. Iron chelating therapy has changed the quality of life and life expectancy of thalassemic patients. However, the high cost and rigorous requirements of deferoxamine therapy, and the significant toxicity of deferiprone underline the need for the continued development of new and improved orally effective iron chelators. Such development, and the evolution of improved strategies of iron chelating therapy require a better understanding of the pathophysiology of iron toxicity and the mechanism of action of iron chelating drugs. The timeliness of the present volume is underlined by significant developments in recent years. New insights have been gained into the molecular basis of aberrant iron handling in hereditary disorders and the pathophysiology of iron overload (Chapters 1-5).

A Source Book of Design Reference Standards

Mechanical Engineer's Reference Book

Under-Rewarded Efforts

Physics in Biology and Medicine

How to Actually Change Your Mind

An Essay on the Pain of Playing Video Games

The All-or-Nothing Marriage

An exploration of why we play video games despite the fact that we are almost certain to feel unhappy when we fail at them. We may think of video games as being "fun," but in *The Art of Failure*, Jesper Juul claims that this is almost entirely mistaken. When we play video games, our facial expressions are rarely those of happiness or bliss. Instead, we frown, grimace, and shout in frustration as we lose, or die, or fail to advance to the next level. Humans may have a fundamental desire to succeed and feel competent, but game players choose to engage in an activity in which they are nearly certain to fail and feel incompetent. So why do we play video games even though they make us unhappy? Juul examines this paradox. In video games, as in tragic works of art, literature, theater, and cinema, it seems that we want to experience unpleasantness even if we also dislike it. Reader or audience reaction to tragedy is often explained as catharsis, as a purging of negative emotions. But, Juul points out, this doesn't seem to be the case for video game players. Games do not purge us of unpleasant emotions; they produce them in the first place. What, then, does failure in video game playing do? Juul argues that failure in a game is unique in that when you fail in a game, you (not a character) are in some way inadequate. Yet games also motivate us to play more, in order to escape that inadequacy, and the feeling of escaping failure (often by improving skills) is a central enjoyment of games. Games, writes Juul, are the art of failure: the singular art form that sets us up for failure and allows us to experience it and experiment with it. *The Art of Failure* is essential reading for anyone interested in video games, whether as entertainment, art, or education.

A New York Times columnist and one of America's leading conservative thinkers considers Pope Francis's efforts to change the church he governs in a book that is "must reading for every Christian who cares about the fate of the West and the future of global Christianity" (Rod Dreher, author of *The Benedict Option*). Born Jorge Mario Bergoglio in 1936, today Pope Francis is the 266th pope of the Roman Catholic Church. Pope Francis's stewardship of the Church, while perceived as a revelation by many, has provoked division throughout the world. "If a conclave were to be held today," one Roman source told *The New Yorker*, "Francis would be lucky to get ten votes." In his "concise, rhetorically agile...adroit, perceptive, gripping account (*The New York Times Book Review*), Ross Douthat explains why the particular debate Francis has opened—over communion for the divorced and the remarried—is so dangerous: How it cuts to the heart of the larger argument over how Christianity should respond to the sexual revolution and modernity itself, how it promises or threatens to separate the church from its own deep past, and how it divides Catholicism along geographical and cultural lines. Douthat argues that the Francis era is a crucial experiment for all of Western civilization, which is facing resurgent external enemies (from ISIS to Putin) even as it struggles with its own internal divisions, its decadence, and self-doubt. Whether Francis or his critics are right won't just determine whether he ends up as a hero or a tragic figure for Catholics. It will determine whether he's a hero, or a gambler who's betraying both his church and his civilization into the hands of its enemies. "A balanced look at the struggle for the future of Catholicism...*To Change the Church* is a fascinating look at the church under Pope Francis" (*Kirkus Reviews*). Engaging and provocative, this is "a pot-boiler of a history that examines a growing ecclesial crisis" (*Washington Independent Review of Books*).

Why are some parts of the world so rich and others so poor? Why did the Industrial Revolution—and the unprecedented economic growth that came with it—occur in eighteenth-century England, and not at some other time, or in some other place? Why didn't industrialization make the whole world rich—and why did it make large parts of the world even poorer? In *A Farewell to Alms*, Gregory Clark tackles these profound questions and suggests a new and provocative way in which culture—not exploitation, geography, or resources—explains the wealth, and the poverty, of nations. Countering the prevailing theory that the Industrial Revolution was sparked by the sudden development of stable political, legal, and economic institutions in seventeenth-century Europe, Clark shows that such institutions existed long before industrialization. He argues instead that these institutions gradually led to deep cultural changes by encouraging people to abandon hunter-gatherer instincts—violence, impatience, and economy of effort—and adopt economic habits—hard work, rationality, and education. The problem, Clark says, is that only societies that have long histories of settlement and security seem to develop the cultural characteristics and effective workforces that enable economic growth. For the many societies that have not enjoyed long periods of stability, industrialization has not been a blessing. Clark also dissects the notion, championed by Jared Diamond in *Guns, Germs, and Steel*, that natural endowments such as geography account for differences in the wealth of

nations. A brilliant and sobering challenge to the idea that poor societies can be economically developed through outside intervention, *A Farewell to Alms* may change the way global economic history is understood. Revolutionary ideas on how to use markets to achieve fairness and prosperity for all. Many blame today's economic inequality, stagnation, and political instability on the free market. The solution is to rein in the market, right? *Radical Markets* turns this thinking on its head. With a new foreword by Ethereum creator Vitalik Buterin and virtual reality pioneer Jaron Lanier as well as a new afterword by Eric Posner and Glen Weyl, this provocative book reveals bold new ways to organize markets for the good of everyone. It shows how the emancipatory force of genuinely open, free, and competitive markets can reawaken the dormant nineteenth-century spirit of liberal reform and lead to greater equality, prosperity, and cooperation. Only by radically expanding the scope of markets can we reduce inequality, restore robust economic growth, and resolve political conflicts. But to do that, we must replace our most sacred institutions with truly free and open competition—*Radical Markets* shows how.

How the Best Marriages Work

A First Amendment Jurisprudence for the Modern State

Supporting Parents of Children Ages 0-8

A Differentiable Approach

Multiagent Systems

Radical Markets

Shaped by eighteenth-century assumptions, Liverpool nonetheless laid the foundations for the nineteenth-century Britain that emerged from the Reform era.