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KENT CASSIDY

Globalization of Technology Penguin
A famed political scientist's classic argument for a more cooperative world We assume that, in a world ruled by natural selection, selfishness pays. So why cooperate? In The Evolution of Cooperation, political scientist Robert Axelrod seeks to answer this question. In 1980, he organized the famed Computer Prisoners Dilemma Tournament, which sought to find the optimal strategy for survival in a particular game. Over and over, the simplest strategy, a cooperative program called Tit for Tat, shut out the competition. In other words, cooperation, not unfettered competition, turns out to be our best chance for survival. A vital book for leaders and decision makers, The Evolution of Cooperation reveals how cooperative principles help us think better about everything from military strategy, to political elections, to family dynamics.

The Atlas of Economic Complexity PublicAffairs
Calpurnia Virginia Tate is eleven years old in 1899 when she wonders why the yellow grasshoppers in her Texas backyard are so much bigger than the green ones.With a little help from her notoriously cantankerous grandfather, an avid naturalist, she figures out that the green grasshoppers are easier to see against the yellow grass, so they are eaten before they can get any larger. As Callie explores the natural world around her, she develops a close relationship with her grandfather, navigates the dangers of living with six brothers, and comes up against just what it means to be a girl at the turn of the century. Debut author Jacqueline Kelly deftly brings Callie and her family to life, capturing a year of growing up with unique sensitivity and a wry wit. The Evolution of Calpurnia Tate is a 2010 Newbery Honor Book and the winner of the 2010 Bank Street - Josette Frank Award.

The Selfish Gene Basic Books
We know that our world is undergoing seismic change—but how can we emerge from the crisis a fairer, more equal society? Over the past two centuries or so, capitalism has undergone profound

changes—economic cycles that veer from boom to bust—from which it has always emerged transformed and strengthened. Surveying this turbulent history, Paul Mason's Postcapitalism argues that we are on the brink of a change so big and so profound that this time capitalism itself, the immensely complex system within which entire societies function, will mutate into something wholly new. At the heart of this change is information technology, a revolution that is driven by capitalism but, with its tendency to push the value of much of what we make toward zero, has the potential to destroy an economy based on markets, wages, and private ownership. Almost unnoticed, in the niches and hollows of the market system, swaths of economic life are beginning to move to a different rhythm. Vast numbers of people are changing how they behave and live, in ways contrary to the current system of state-backed corporate capitalism. And as the terrain changes, new paths open. In this bold and prophetic book, Mason shows how, from the ashes of the crisis, we have the chance to create a more socially just and sustainable economy. Although the dangers ahead are profound, he argues that there is cause for hope. This is the first time in human history in which, equipped with an understanding of what is happening around us, we can predict and shape the future.

Bones and Cartilage Square Fish

The main driver of inequality—returns on capital that exceed the rate of economic growth—is again threatening to generate extreme discontent and undermine democratic values. Thomas Piketty's findings in this ambitious, original, rigorous work will transform debate and set the agenda for the next generation of thought about wealth and inequality.

The Fight for a Human Future at the New Frontier of Power MIT Press

Bones and Cartilage provides the most in-depth review and synthesis assembled on the topic, across all vertebrates. It examines the function, development and evolution of bone and cartilage as tissues, organs and skeletal systems. It describes how bone and cartilage develop in embryos and are maintained in adults, how bone is repaired when we break a leg, or regenerates when a newt grows a new limb, or a lizard a new tail. The second edition of Bones and Cartilage includes the most recent knowledge of molecular, cellular, developmental and evolutionary processes, which are integrated to outline a unified discipline of developmental and evolutionary skeletal biology. Additionally, coverage includes how the molecular and cellular aspects of bones and cartilage differ in different skeletal systems and across species, along with the latest studies and hypotheses of relationships between skeletal cells and the most recent information on coupling between osteocytes and osteoclasts All chapters have been revised and updated to include the latest research. Offers complete coverage of every aspect of bone and cartilage, with updated references and extensive illustrations Integrates development and evolution of the skeleton, as well a synthesis of differentiation, growth and patterning Treats all levels from molecular to clinical, embryos to evolution, and covers all vertebrates as well as invertebrate cartilages Includes new chapters on evolutionary skeletal biology that highlight normal variation and variability, and variation outside the norm (neomorphs, atavisms) Updates hypotheses on the origination of cartilage using new phylogenetic, cellular and genetic data Covers stem cells in embryos and adults, including mesenchymal stem cells and their use in genetic engineering of cartilage, and the concept of the stem cell niche

Why Information Grows MIT Press

This revelatory exploration of big data, which refers to our newfound ability to crunch vast amounts of information, analyze it instantly and draw profound and surprising conclusions from it, discusses how it will change our lives and what we can do to protect ourselves from its hazards. 75,000 first printing.

Design in Nature National Academies Press

An ethologist shows man to be a gene machine whose world is one of savage competition and deceit

Fahrenheit 451 National Academies Press

Today many school students are shielded from one of the most important concepts in modern science: evolution. In engaging and conversational style, Teaching About Evolution and the Nature of Science provides a well-structured framework for understanding and teaching evolution. Written for teachers, parents, and community officials as well as scientists and educators, this book describes how evolution reveals both the great diversity and similarity among the Earth's organisms; it explores how scientists approach the question of evolution; and it illustrates the nature of science as a way of knowing about the natural world. In addition, the book provides answers to frequently asked questions to help readers understand many of the issues and misconceptions about evolution. The book includes sample activities for teaching about evolution and the nature of science. For example, the book includes activities that investigate fossil footprints and population growth that teachers of science can use to introduce principles of evolution. Background information, materials, and step-by-step presentations are provided for each activity. In addition, this volume: Presents the evidence for evolution, including how evolution can be observed today. Explains the nature of science through a variety of examples. Describes how science differs from other human endeavors and why evolution is one of the best avenues for helping students understand this distinction. Answers frequently asked questions about evolution. Teaching About Evolution and the Nature of Science builds on the 1996 National Science Education Standards released by the National Research Council--and offers detailed guidance on how to evaluate and choose instructional materials that support the standards. Comprehensive and practical, this book brings one of today's educational challenges into focus in a balanced and reasoned discussion. It will be of special interest to teachers of science, school administrators, and interested members of the community.

The Art Instinct Harvard University Press

Why Information GrowsThe Evolution of Order, from Atoms to EconomiesWhy Information GrowsThe Evolution of Order, from Atoms to EconomiesBasic Books

What It's Like to Be a Bird W. W. Norton & Company

"Startling in scope and bravado." —Janet Maslin, The New York Times "Artfully envisions a breathtakingly better world." —Los Angeles Times "Elaborate, smart and persuasive." —The Boston Globe "A pleasure to read." —The Wall Street Journal One of CBS News's Best Fall Books of 2005 • Among St Louis Post-Dispatch's Best Nonfiction Books of 2005 • One of Amazon.com's Best Science Books of 2005 A radical and optimistic view of the future course of human development from the bestselling author of How to Create a Mind and The Singularity is Nearer who Bill Gates calls "the best person I know at predicting the future of artificial intelligence" For over three decades, Ray Kurzweil has been one of the most respected and provocative advocates of the role of technology in our future. In his classic The Age of Spiritual Machines, he argued that computers would soon rival the full range of human intelligence at its best. Now he examines the next step in this inexorable evolutionary process: the union of human and machine, in which the knowledge and skills embedded in our

brains will be combined with the vastly greater capacity, speed, and knowledge-sharing ability of our creations.

Discovering the Brain Houghton Mifflin Harcourt

Ray Kurzweil is the inventor of the most innovative and compelling technology of our era, an international authority on artificial intelligence, and one of our greatest living visionaries. Now he offers a framework for envisioning the twenty-first century--an age in which the marriage of human sensitivity and artificial intelligence fundamentally alters and improves the way we live. Kurzweil's prophetic blueprint for the future takes us through the advances that inexorably result in computers exceeding the memory capacity and computational ability of the human brain by the year 2020 (with human-level capabilities not far behind); in relationships with automated personalities who will be our teachers, companions, and lovers; and in information fed straight into our brains along direct neural pathways. Optimistic and challenging, thought-provoking and engaging, The Age of Spiritual Machines is the ultimate guide on our road into the next century.

Fit for Growth Farrar, Straus and Giroux

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A Report for the Club of Rome's Project on the Predicament of Mankind Simon and Schuster

This debut book boldly seeks to argue competitively in the same intellectual field as famous atheists such as RICHARD DAWKINS, CHRISTOPHER HITCHENS, and BERTRAND RUSSELL, and to do so in the spirit and style of such famous Christian apologists as C.S. Lewis and RAVI ZACHARIAS, drawing heavily on basic science, history, physics, psychology, paleontology, anthropology, archeology, neurology, child development and even science fiction. It describes the evolution of the human brain in ancient hominids allowing humans to eventually conceive a non-physical realm (the spirit world), and as the mind evolved intellectually from primitive animism to Christology, God revealed himself gradually as the developing hominid brain became able to comprehend new ideas. For Believers, the author presents a new, intellectually satisfying way to understand and defend the Bible. For both Skeptics and Believers, a worldview is offered that is spiritually meaningful and scientifically sound.

A Guide to Our Future Princeton University Press

The challenges to humanity posed by the digital future, the first detailed examination of the unprecedented form of power called "surveillance capitalism," and the quest by powerful corporations to predict and control our behavior. In this masterwork of original thinking and research, Shoshana Zuboff provides startling insights into the phenomenon that she has named surveillance capitalism. The stakes could not be higher: a global architecture of behavior modification threatens human nature in the twenty-first century just as industrial capitalism disfigured the natural world in the twentieth. Zuboff vividly brings to life the consequences as surveillance capitalism advances from Silicon Valley into every economic sector. Vast wealth and power are accumulated in ominous new "behavioral futures markets," where predictions about our behavior are bought and sold, and the production of goods and services is subordinated to a new "means of behavioral modification." The threat has shifted from a totalitarian Big Brother state to a ubiquitous digital architecture: a "Big Other" operating in the interests of surveillance capital. Here is the crucible of an unprecedented form of power marked by extreme concentrations of knowledge and free from democratic oversight. Zuboff's comprehensive and moving analysis lays bare the threats to twenty-first century society: a controlled "hive" of total connection that seduces with promises of total certainty for maximum profit -- at the expense of democracy, freedom, and our human future. With little resistance from law or society, surveillance capitalism is on the verge of dominating the social order and shaping the digital future -- if we let it.

How the Constructal Law Governs Evolution in Biology, Physics, Technology, and Social Organizations Anchor

Recent years have yielded significant advances in computing and communication technologies, with profound impacts on society. Technology is transforming the way we work, play, and interact with others. From these technological capabilities, new industries, organizational forms, and business models are emerging. Technological advances can create enormous economic and other benefits, but can also lead to significant changes for workers. IT and automation can change the way work is conducted, by augmenting or replacing workers in specific tasks. This can shift the demand for some types of human labor, eliminating some jobs and creating new ones. Information Technology and the U.S. Workforce explores the interactions between technological, economic, and societal trends and identifies possible near-term developments for work. This report emphasizes the need to understand and track these trends and develop strategies to inform, prepare for, and respond to changes in the labor market. It offers evaluations of what is known, notes open questions to be addressed, and identifies promising research pathways moving forward.

In the Light of Evolution Oxford University Press, USA

A practical guide to the new economy that is transforming the way we live, work, and play. Uber. Airbnb. Amazon. Apple. PayPal. All of these companies disrupted their markets when they launched. Today they are industry leaders. What’s the secret to their success? These cutting-edge businesses are built on platforms: two-sided markets that are revolutionizing the way we do business. Written by three of the most sought-after experts on platform businesses, Platform Revolution is the first authoritative, fact-based book on platform models. Whether platforms are connecting sellers and buyers, hosts and visitors, or drivers with people who need a ride, Geoffrey G. Parker, Marshall W. Van Alstyne, and Sangeet Paul Choudary reveal the what, how, and why of this revolution and provide the first “owner’s manual” for creating a successful platform business. Platform Revolution teaches newcomers how to start and run a successful platform business, explaining ways to identify prime markets and monetize networks. Addressing current business leaders, the authors reveal strategies behind some of today’s up-and-coming platforms, such as Tinder and SkillShare, and explain how traditional companies can adapt in a changing marketplace. The authors also cover essential issues concerning security, regulation, and consumer trust, while examining markets that may be ripe for a platform revolution, including healthcare, education, and energy. As digital networks increase in ubiquity, businesses that do a better job of harnessing the power of the platform will win. An indispensable guide, Platform Revolution charts out the brilliant future of platforms and reveals how they will irrevocably alter the lives and careers of millions.

The Origin of Wealth Harvard Business Press

The bird book for birders and nonbirders alike that will excite and inspire by providing a new and deeper understanding of what common, mostly backyard, birds are doing—and why: "Can birds smell?"; "Is this the same cardinal that was at my feeder last year?"; "Do robins 'hear' worms?" "The book's beauty mirrors the beauty of birds it describes so marvelously." —NPR In What It's Like to Be

a Bird, David Sibley answers the most frequently asked questions about the birds we see most often. This special, large-format volume is geared as much to nonbirders as it is to the out-and-out obsessed, covering more than two hundred species and including more than 330 new illustrations by the author. While its focus is on familiar backyard birds—blue jays, nuthatches, chickadees—it also examines certain species that can be fairly easily observed, such as the seashore-dwelling Atlantic puffin. David Sibley's exacting artwork and wide-ranging expertise bring observed behaviors vividly to life. (For most species, the primary illustration is reproduced life-sized.) And while the text is aimed at adults—including fascinating new scientific research on the myriad ways birds have adapted to environmental changes—it is nontechnical, making it the perfect occasion for parents and grandparents to share their love of birds with young children, who will delight in the big, full-color illustrations of birds in action. Unlike any other book he has written, What It's Like to Be a Bird is poised to bring a whole new audience to David Sibley's world of birds.

Entangled Life Penguin UK

"Hidalgo has made a bold attempt to synthesize a large body of cutting-edge work into a readable, slender volume. This is the future of growth theory." -- Financial Times What is economic growth? And why, historically, has it occurred in only a few places? Previous efforts to answer these questions have focused on institutions, geography, finances, and psychology. But according to MIT's antidisciplinarian Cér Hidalgo, understanding the nature of economic growth demands transcending the social sciences and including the natural sciences of information, networks, and complexity. To understand the growth of economies, Hidalgo argues, we first need to understand the growth of order. At first glance, the universe seems hostile to order. Thermodynamics dictates that over time, order-or information-disappears. Whispers vanish in the wind just like the beauty of swirling cigarette smoke collapses into disorderly clouds. But thermodynamics also has loopholes that promote the growth of information in pockets. Although cities are all pockets where information grows, they are not all the same. For every Silicon Valley, Tokyo, and Paris, there are dozens of places with economies that accomplish little more than pulling rocks out of the ground. So, why does the US economy outstrip Brazil's, and Brazil's that of Chad? Why did the technology corridor along Boston's Route 128 languish while Silicon Valley blossomed? In each case, the key is how people, firms, and the networks they form make use of information. Seen from Hidalgo's vantage, economies become distributed computers, made of networks of people, and the problem of economic development becomes the problem of making these computers more powerful. By uncovering the mechanisms that enable the growth of information in nature and society, Why Information Grows lays bear the origins of physical order and economic growth. Situated at the nexus of information theory, physics, sociology, and economics, this book propounds a new theory of how economies can do not just more things, but more interesting things.

Catching Fire Oxford University Press, USA

Rev. ed. of: The experience economy: work is theatre & every business a stage. 1999.

Evolution and the Challenges of Modern Life Simon and Schuster

INTERNATIONAL BESTSELLER • “Merlin Sheldrake’s marvelous tour of these diverse and extraordinary life forms is eye-opening on why humans should consider fungi among the greatest of earth’s marvels. . . . Wondrous.”—Time A mind-bending journey into the hidden universe of fungi, “one of those rare books that can truly change the way you see the world around you” (Helen Macdonald, author of H Is for Hawk). WINNER OF THE ROYAL SOCIETY SCIENCE BOOK PRIZE • NAMED ONE OF THE BEST BOOKS OF THE YEAR BY Time • BBC Science Focus • The Daily Mail • Geographical • The Times • The Telegraph • New Statesman • London Evening Standard • Science Friday When we think of fungi, we likely think of mushrooms. But mushrooms are only fruiting bodies, analogous to apples on a tree. Most fungi live out of sight, yet make up a massively diverse kingdom of organisms that supports and sustains nearly all living systems. Fungi provide a key to understanding the planet on which we live, and the ways we think, feel, and behave. In Entangled Life, the brilliant young biologist Merlin Sheldrake shows us the world from a fungal point of view, providing an exhilarating change of perspective. Sheldrake’s vivid exploration takes us from yeast to psychedelics, to the fungi that range for miles underground and are the largest organisms on the planet, to those that link plants together in complex networks known as the “Wood Wide Web,” to those that infiltrate and manipulate insect bodies with devastating precision. Fungi throw our concepts of individuality and even intelligence into question. They are metabolic masters, earth makers, and key players in most of life’s processes. They can change our minds, heal our bodies, and even help us remediate environmental disaster. By examining fungi on their own terms, Sheldrake reveals how these extraordinary organisms—and our relationships with them—are changing our understanding of how life works. SHORTLISTED FOR THE BRITISH BOOK AWARD • LONGLISTED FOR THE RATHBONES FOLIO PRIZE “Entangled Life is a gorgeous book of literary nature writing in the tradition of [Robert] Macfarlane and John Fowles, ripe with insight and erudition. . . . Food for the soul.”—Eugenia Bone, Wall Street Journal “[An] ebullient and ambitious exploration . . . This book may not be a psychedelic—and unlike Sheldrake, I haven’t dared to consume my copy (yet)—but reading it left me not just moved but altered, eager to disseminate its message of what fungi can do.”—Jennifer Szalai, The New York Times