Complexity A Very Short Introduction Very Short Introductions

Statistics: A Very Short IntroductionTopologyGenomics: A Very Short IntroductionCanada: A Very Short IntroductionSynaesthesia: A Very Short IntroductionNetworks: A Very Short IntroductionFractals: A Very Short IntroductionLeadership: A Very Short IntroductionAfrican History: A Very Short IntroductionNothing: A Very Short IntroductionTypography: a Very Short IntroductionThe Middle AgesRacism: A Very Short IntroductionProbability: A Very Short IntroductionCryptography: A Very Short IntroductionGenius: A Very Short IntroductionThe U.S. Supreme CourtManagement: A Very Short IntroductionAstrobiology: A Very Short IntroductionComplexityGame Theory: A Very Short IntroductionAlbert CamusEvolutionary Psychology: a Very Short IntroductionChaos: A Very Short IntroductionThe Sun: a Very Short IntroductionApplied MathematicsComputer Science: A Very Short IntroductionIntelligence: A Very Short IntroductionInformation: A Very Short IntroductionJungPrehistoryCombinatoricsHistory: A Very Short IntroductionSociolinguistics: A Very Short IntroductionCausation: A Very Short IntroductionMetaphysics: A Very Short IntroductionThe New Testament as Literature: A Very Short IntroductionProjects: A Very Short IntroductionSimply ComplexityBlack Holes: A Very Short Introduction

Statistics: A Very Short Introduction

How many possible sudoku puzzles are there? In the lottery, what is the chance that two winning balls have consecutive numbers? Who invented Pascal's triangle? (it was not Pascal) Combinatorics, the branch of mathematics concerned with selecting, arranging, and listing or counting collections of objects, works to answer all these questions. Dating back some 3000 years, and initially consisting mainly of the study of permutations and combinations, its scope has broadened to include topics such as graph theory, partitions of numbers, block designs, design of codes, and latin squares. In this Very Short Introduction Robin Wilson gives an overview of the field and its applications in mathematics and computer theory, considering problems from the shortest routes covering certain stops to the minimum number of colours needed to colour a map with different colours for neighbouring countries. ABOUT THE SERIES: The Very Short Introductions series from Oxford University Press contains hundreds of titles in almost every subject area. These pocket-sized books are the perfect way to get ahead in a new subject quickly. Our expert authors combine facts, analysis, perspective, new ideas, and enthusiasm to make interesting and challenging topics highly readable.

Topology

This book is a clear and informative introduction to cryptography and data protection – subjects of considerable social and political importance. It explains what algorithms do, how they are used, the risks associated with using them, and why governments should be concerned. Important areas are highlighted, such as Stream Ciphers, block ciphers, public key algorithms, digital signatures, and applications such as e-commerce. This book highlights the explosive impact of cryptography on modern society, with, for example, the evolution of the internet and the introduction of more sophisticated banking methods. ABOUT THE SERIES: The Very Short Introductions series from Oxford University Press contains hundreds of titles in almost every subject area. These pocket-sized books are the perfect way to get ahead in a new subject quickly. Our expert authors combine facts, analysis, perspective, new ideas, and enthusiasm to make interesting and challenging topics highly readable.

Genomics: A Very Short Introduction

Without cause and effect, there would be no science or technology, no moral responsibility, and no system of law. Causation is therefore the most fundamental connection in the universe and a core topic of philosophical thought. This Very Short Introduction introduces all of the main theories of causation and its key debates.

Canada: A Very Short Introduction

From ecosystems to Facebook, from the Internet to the global financial market, some of the most important and familiar natural systems and social phenomena are based on a networked structure. It is impossible to understand the spread of an epidemic, a computer virus, large-scale blackouts, or massive extinctions without taking into account the network structure that underlies all these phenomena. In this Very Short Introduction, Guido Caldarelli and Michele Catanzaro discuss the nature and variety of networks, using everyday examples from society, technology, nature, and history to explain and understand the science of network theory. They show the ubiquitous role of networks; how networks self-organize; why the rich get richer; and how networks can spontaneously collapse. They conclude by highlighting how the findings of complex network theory have very wide and important applications in genetics, ecology, communications, economics, and sociology. ABOUT THE SERIES: The Very Short Introductions series from Oxford University Press contains hundreds of titles in almost every subject

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Synaesthesia: A Very Short Introduction

Genomics has transformed the biological sciences. From epidemiology and medicine to evolution and forensics, the ability to determine an organism's complete genetic makeup has changed the way science is done and the questions that can be asked of it. Its most celebrated achievement was the Human Genome Project, a technologically challenging endeavor that took thousands of scientists around the world 13 years and over 3 billion US dollars to complete. In this Very Short Introduction John Archibald explores the science of genomics and its rapidly expanding toolbox. Sequencing a human genome now takes only a few days and costs as little as $1,000. The genomes of simple bacteria and viruses can be sequenced in a matter of hours on a device that fits in the palm of your hand. The resulting sequences can be used to better understand our biology in health and disease and to 'personalize' medicine. Archibald shows how the field of genomics is on the cusp of another quantum leap; the implications for science and society are profound. ABOUT THE SERIES: The Very Short Introductions series from Oxford University Press contains hundreds of titles in almost every subject area. These pocket-sized books are the perfect way to get ahead in a new subject quickly. Our expert authors combine facts, analysis, perspective, new ideas, and enthusiasm to make interesting and challenging topics highly readable.

Networks: A Very Short Introduction

Typography, the art of designing printed words, was once the domain of an elite few artists but has become an area with which millions of people engage daily. The widespread usage of digital devices from laptops to tablets and smart phones which are used for written communications means that we are regularly asked to make decisions about the fonts, sizes, and layouts we use in our writing. This broadening engagement with the field of typography has led to a perceptible shift from debates about legibility and technicalities to conversations about which fonts best reflect the writer's personality or style. In this Very Short Introduction, Paul Luna offers a broad definition of typography as design for reading, whether in print or on screens, where a set of visual choices are taken to make a written message more accessible, more easily transmitted, more significant, or more attractive. Considering the development of letterforms and the shapes of letter we use, Luna discusses the history behind our modern

day letters and fonts, before considering the issues behind key typographic decisions, and the differences between printed and on-screen typography. Presenting any piece of typography as a fundamental design choice, Luna introduces the options available today, and explores the reasons why key typographic decisions are made. ABOUT THE SERIES: The Very Short Introductions series from Oxford University Press contains hundreds of titles in almost every subject area. These pocket-sized books are the perfect way to get ahead in a new subject quickly. Our expert authors combine facts, analysis, perspective, new ideas, and enthusiasm to make interesting and challenging topics highly readable.

Fractals: A Very Short Introduction

The first concise study of genius in both the arts and the sciences, using the life and work of famous geniuses to illuminate this phenomenon.-publisher description.

Leadership: A Very Short Introduction

In this Very Short Introduction, John Hendry provides a lively introduction to the nature and principles of management. Tracing its development over the past century, Hendry looks not only at the jobs managers do today and their place in the culture of work, but also provides an insight into modern management theory.

African History: A Very Short Introduction

Making good decisions under conditions of uncertainty - which is the norm - requires a sound appreciation of the way random chance works. As analysis and modelling of most aspects of the world, and all measurement, are necessarily imprecise and involve uncertainties of varying degrees, the understanding and management of probabilities is central to much work in the sciences and economics. In this Very Short Introduction, John Haigh introduces the ideas of probability and different philosophical approaches to probability, and gives a brief account of the history of development of probability theory, from Galileo and Pascal to Bayes, Laplace, Poisson, and Markov. He describes the basic probability distributions, and goes on to discuss a wide range of applications in science, economics, and a variety of other contexts such as games and betting. He concludes with an intriguing discussion of coincidences and some curious paradoxes. ABOUT THE SERIES: The Very Short Introductions series from Oxford University Press contains hundreds of titles in almost every subject area. These pocket-sized

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Nothing: A Very Short Introduction

Starting with an examination of how historians work, this "Very Short Introduction" aims to explore history in a general, pithy, and accessible manner, rather than to delve into specific periods.

Typography: a Very Short Introduction

An exploration of the concept of "nothing" journeys from ancient ideas and cultural traditions to the latest scientific research, discussing the history of the vacuum, theories on the nature of time and space, and other discoveries.

The Middle Ages

The subject of leadership raises many questions: What is it? How does it differ from management and command? Are leaders born or bred? Who are the leaders? Do we actually need leaders? Inevitably, the answers are provocative and partial; leadership is a hugely important topic of debate. There are constant calls for 'greater' or 'stronger' leadership, but what this actually means, how we can evaluate it, and why it's important are not very clear. In this Very Short Introduction Keith Grint prompts the reader to rethink their understanding of what leadership is. He examines the way leadership has evolved from its earliest manifestations in ancient societies, highlighting the beginnings of leadership writings through Plato, Sun Tzu, Machiavelli and others, to consider the role of the social, economic, and political context undermining particular modes of leadership. Exploring the idea that leaders cannot exist without followers, and recognising that we all have diverse experiences and assumptions of leadership, Grint looks at the practice of management, its history, future, and influence on all aspects of society. ABOUT THE SERIES: The Very Short Introductions series from Oxford University Press contains hundreds of titles in almost every subject area. These pocket-sized books are the perfect way to get ahead in a new subject quickly. Our expert authors combine facts, analysis, perspective, new ideas, and enthusiasm to make interesting and challenging topics highly readable.

Racism: A Very Short Introduction

Metaphysics is one of the traditional four main branches of philosophy, alongside ethics, logic and epistemology. It is also an area that continues to attract and hold a fascination for many people yet it is associated with being complex and abstract. For some it is associated with the mystical or religious. For others it is known through the metaphysical poets who talk of love and spirituality. This Very Short Introduction goes right to the heart of the matter, getting to the basic and most important questions of metaphysical thought in order to understand the theory: What are objects? Do colours and shapes have some form of existence? What is it for one thing to cause another rather than just being associated with it? What is possible? Does time pass? By using these questions to initiate thought about the basic issues around substance, properties, changes, causes, possibilities, time, personal identity, nothingness and emergentism, Stephen Mumford provides a clear and simple path through this analytical tradition at the core of philosophical thought. ABOUT THE SERIES: The Very Short Introductions series from Oxford University Press contains hundreds of titles in almost every subject area. These pocket-sized books are the perfect way to get ahead in a new subject quickly. Our expert authors combine facts, analysis, perspective, new ideas, and enthusiasm to make interesting and challenging topics highly readable.

Probability: A Very Short Introduction

The words, phrases, and stories of the New Testament permeate the English language. Indeed, this relatively small group of twenty-seven works, written during the height of the Roman Empire, not only helped create and sustain a vast world religion, but also have been integral to the larger cultural dynamics of the West, above and beyond particular religious expressions. Looking at the New Testament through the lens of literary study, Kyle Keefer offers an engrossing exploration of this revered religious text as a work of literature, but also keeps in focus its theological ramifications. Unique among books that examine the Bible as literature, this brilliantly compact introduction offers an intriguing double-edged look at this universal text--a religiously informed literary analysis. The book first explores the major sections of the New Testament--the gospels, Paul's letters, and Revelation--as individual literary documents. Keefer shows how, in such familiar stories as the parable of the Good Samaritan, a literary analysis can uncover an unexpected complexity to what seems a simple, straightforward tale. At the conclusion of the book, Keefer steps back and asks questions about the New Testament as a whole. He reveals that whether read as a single document or as a collection of works, the

New Testament presents readers with a wide variety of forms and viewpoints, and a literary exploration helps bring this richness to light. A fascinating investigation of the New Testament as a classic literary work, this Very Short Introduction uses a literary framework--plot, character, narrative arc, genre--to illuminate the language, structure, and the crafting of this venerable text. About the Series: Combining authority with wit, accessibility, and style, Very Short Introductions offer an introduction to some of life's most interesting topics. Written by experts for the newcomer, they demonstrate the finest contemporary thinking about the central problems and issues in hundreds of key topics, from philosophy to Freud, quantum theory to Islam.

Cryptography: A Very Short Introduction

In this Very Short Introduction, John Holland presents an introduction to the science of complexity. Using examples from biology and economics, he shows how complexity science models the behaviour of complex systems.

Genius: A Very Short Introduction

Essential reading for anyone interested in the African continent and the diversity of human history, this Very Short Introduction looks at Africa's past and reflects on the changing ways it has been imagined and represented. Key themes in current thinking about Africa's history are illustrated with a range of fascinating historical examples, drawn from over 5 millennia across this vast continent. ABOUT THE SERIES: The Very Short Introductions series from Oxford University Press contains hundreds of titles in almost every subject area. These pocket-sized books are the perfect way to get ahead in a new subject quickly. Our expert authors combine facts, analysis, perspective, new ideas, and enthusiasm to make interesting and challenging topics highly readable.

The U.S. Supreme Court

One of the most powerful frameworks for understanding human behaviour is evolutionary psychology. Evolutionary psychology takes the view that the brain, just like any other part of our body such as teeth or hands, has been shaped by the processes of natural and sexual selection. How we think,and the way we use logic or assess problems, has its roots in behaviour which enabled our ancestors to survive and reproduce successfully. Using this perspective, the divide between nature and nurture evaporates, as

humans are shown to be the product of their genes and biology, as well as theirenvironment, social groups, and families.In this Very Short Introduction Maryanne Fisher show how examining the historic lives of our ancestors can provide insight into of our modern psychology, especially when we add data from modern-day hunter-gatherer societies, comparative studies on the great apes, and the fossil record. Surprisingly,alongside these traditional data sources, evolutionary psychology can also use surveys from university students, romance novels, and even patterns in online shopping behaviour. Throughout, Maryanne Fisher discusses how drawing together this diverse data allows us to understand the complexity ofhumans in a powerful mannerABOUT THE SERIES:The Very Short Introductions series from Oxford University Press contains hundreds of titles in almost every subject area. These pocket-sized books are the perfect way to get ahead in a new subject quickly. Our expert authors combine facts, analysis, perspective, new ideas, and enthusiasm to makeinteresting and challenging topics highly readable.

Management: A Very Short Introduction

With the unveiling in 2009 of Jung's famous Red Book-considered the most influential unpublished work in the history of psychology-this great 20th-century thinker is in the public eye more than ever before. Here, Anthony Stevens lays out the basic concepts of Jungian psychology; examines Jung's views on such disparate subjects as myth, religion, gender differences, dreams, and analysis; and addresses the unjust allegation that Jung was a Nazi sympathizer.

Astrobiology: A Very Short Introduction

From subtle discrimination in everyday life and scandals in politics, to incidents like lynchings in the American South, cultural imperialism, and 'ethnic cleansing', racism exists in many different forms, in almost every facet of society. But what actually is race? How has racism come to be so firmly established? Why do so few people actually admit to being racist? How are race, ethnicity, and xenophobia related? Racism: A Very Short Introduction incorporates the latest research to demystify the subject of racism and explore its history, science, and culture. It sheds light not only on how racism has evolved since its earliest beginnings, but will also explore the numerous embodiments of racism, highlighting the paradox of its survival, despite the scientific discrediting of the notion of 'race' with the latest advances in genetics. ABOUT THE SERIES: The Very Short Introductions series from Oxford University Press contains hundreds of titles in almost every subject area. These pocket-sized books are the perfect way to get ahead in a new subject quickly. Our expert authors combine facts, analysis,

perspective, new ideas, and enthusiasm to make interesting and challenging topics highly readable.

Complexity

Examines the origins of life on Earth and the search for extraterrestrial life, through an understanding of the factors that have allowed life to exist on this planet and the commonalities on others that may enable life elsewhere.

Game Theory: A Very Short Introduction

Canada is not one nation, but three: English Canada, Quebec, and First Nations. Yet as a country Canada is very successful, in part because it maintains national diversity through bilingualism, multiculturalism, and federalism. Alongside this contemporary openness Canada also has its own history to contend with; with a legacy of broken treaties and residential schools for its Indigenous peoples, making reconciliation between Canada and First Nations an ongoing journey, not a destination. Drawing on history, politics, and literature, this Very Short Introduction starts at the end of the last ice age, when the melting of the ice sheets opened the northern half of North America to Indigenous peoples, and covers up to today's anthropogenic climate change, and Canada's climate politics. Donald Wright emphasizes Canada's complexity and diversity as well as its different identities and its commitment to rights, and explores its historical relationship to Great Britain, and its ongoing relationship with the United States. Finally, he examines Canada's northern realities and its northern identities. ABOUT THE SERIES: The Very Short Introductions series from Oxford University Press contains hundreds of titles in almost every subject area. These pocket-sized books are the perfect way to get ahead in a new subject quickly. Our expert authors combine facts, analysis, perspective, new ideas, and enthusiasm to make interesting and challenging topics highly readable.

Albert Camus

The Middle Ages (c.500-1500) includes a thousand years of European history. In this Very Short Introduction Miri Rubin tells the story of the times through the people and their lifestyles. Including stories of kingship and Christian salvation, agriculture and trade, Rubin demonstrates the remarkable nature and legacy of the Middle Ages.

Evolutionary Psychology: a Very Short Introduction

Many are familiar with the beauty and ubiquity of fractal forms within nature. Unlike the study of smooth forms such as spheres, fractal geometry describes more familiar shapes and patterns, such as the complex contours of coastlines, the outlines of clouds, and the branching of trees. In this Very Short Introduction, Kenneth Falconer looks at the roots of the 'fractal revolution' that occurred in mathematics in the 20th century, presents the 'new geometry' of fractals, explains the basic concepts, and explores the wide range of applications in science, and in aspects of economics. This is essential introductory reading for students of mathematics and science, and those interested in popular science and mathematics. ABOUT THE SERIES: The Very Short Introductions series from Oxford University Press contains hundreds of titles in almost every subject area. These pocket-sized books are the perfect way to get ahead in a new subject quickly. Our expert authors combine facts, analysis, perspective, new ideas, and enthusiasm to make interesting and challenging topics highly readable.

Chaos: A Very Short Introduction

Prehistory covers the period of some 4 million years before the start of written history, when our earliest ancestors, the Australopithecines, existed in Africa. But this is relatively recent compared to whole history of the earth of some 4.5 billion years. A key aspect of prehistory is that it provides a sense of scale, throwing recent ways of life into perspective. Humans and their ancestors lived in many different ways and the cultural variety we see now is just a tiny fraction of that which has existed over millions of years. Humans are part of the broader evolution of landscapes and communities of plants and animals, but Homo sapiens is also the only species to have made a real impact on planetary systems. To understand such an impact, we need a grasp of our longest term development and ways of life. In this new edition of his Very Short Introduction, Chris Gosden invites us to think seriously about who we are by considering who we have been. As he explains, many new discoveries have been made in archaeology over the last ten years, and a new framework for prehistory is emerging. A greater understanding of Chinese and central Asian prehistory has thrown Eurasian prehistory in quite a different light, with flows of the influence of culture over large areas now evident. This has eaten away at the traditional view of human progress around the invention of agriculture, the development of cities, and (much later) the industrial revolution, and has given us new geographies to think about. Chris Gosden explores the new landscape of our prehistory and considers the way the different geographical locations weave together. ABOUT THE SERIES: The Very Short Introductions series from Oxford University Press contains hundreds of

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The Sun: a Very Short Introduction

Mathematics is playing an increasingly important role in society and the sciences, enhancing our ability to use models and handle data. While pure mathematics is mostly interested in abstract structures, applied mathematics sits at the interface between this abstract world and the world in which we live. This area of mathematics takes its nourishment from society and science and, in turn, provides a unified way to understand problems arising in diverse fields. This Very Short Introduction presents a compact yet comprehensive view of the field of applied mathematics, and explores its relationships with (pure) mathematics, science, and engineering. Explaining the nature of applied mathematics, Alain Goriely discusses its early achievements in physics and engineering, and its development as a separate field after World War II. Using historical examples, current applications, and challenges, Goriely illustrates the particular role that mathematics plays in the modern sciences today and its far-reaching potential. ABOUT THE SERIES: The Very Short Introductions series from Oxford University Press contains hundreds of titles in almost every subject area. These pocket-sized books are the perfect way to get ahead in a new subject quickly. Our expert authors combine facts, analysis, perspective, new ideas, and enthusiasm to make interesting and challenging topics highly readable.

Applied Mathematics

The Sun, as our nearest star, is of enormous importance for life on Earth - providing the warm radiation and light which allowed complex life to evolve. The Sun plays a key role in influencing our climate, whilst solar storms and high-energy events can threaten our communication infrastructure and satellites. This Very Short Introduction explores what we know about the Sun, its physics, its structure, origins, and future evolution. Philip Judge explains some of the remaining puzzles about the Sun that still confound us, using elementary physics, and mathematical concepts. Why does the Sun form spots? Why does it flare? As he shows, these and other nagging difficulties relate to the Sun's continually variable magnetism, which converts an otherwise dull star into a machine for flooding interplanetary space with variable radiation, high-energy particles and magnetic ejections. Throughout, Judge highlights the many reasons that the Sun is important, and why scientists engage in solar research. ABOUT THE SERIES: The

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Computer Science: A Very Short Introduction

Games are everywhere: Drivers maneuvering in heavy traffic are playing a driving game. Bargain hunters bidding on eBay are playing an auctioning game. The supermarket's price for corn flakes is decided by playing an economic game. This Very Short Introduction offers a succinct tour of the fascinating world of game theory, a ground-breaking field that analyzes how to play games in a rational way. Ken Binmore, a renowned game theorist, explains the theory in a way that is both entertaining and non-mathematical yet also deeply insightful, revealing how game theory can shed light on everything from social gatherings, to ethical decision-making, to successful card-playing strategies, to calculating the sex ratio among bees. With mini-biographies of many fascinating, and occasionally eccentric, founders of the subject--including John Nash, subject of the movie A Beautiful Mind--this book offers a concise overview of a cutting-edge field that has seen spectacular successes in evolutionary biology and economics, and is beginning to revolutionize other disciplines from psychology to political science. About the Series: Oxford's Very Short Introductions offers concise and original introductions to a wide range of subjects--from Islam to Sociology, Politics to Classics, and Literary Theory to History. Not simply a textbook of definitions, each volume provides trenchant and provocative--yet always balanced and complete--discussions of the central issues in a given topic. Every Very Short Introduction gives a readable evolution of the subject in question, demonstrating how it has developed and influenced society. Whatever the area of study, whatever the topic that fascinates the reader, the series has a handy and affordable guide that will likely prove indispensable.

Intelligence: A Very Short Introduction

"First published in hardcover by Oneworld Publications as Two's Company, Three is Complexity, 2007"--T.p. verso.

Information: A Very Short Introduction

A Supreme Court reporter offers an introduction to one of the pillars of American government, focusing on the people and traditions of the U.S. Supreme Court and examining many individual Supreme Court cases.

Jung

Can you taste words, feel flavours as a shape, or hear colors? If so you may well have synaesthesia, a neurological condition that gives rise to a 'merging of the senses'. This Very Short Introduction describes synaesthesia's many forms, and delves into the underlying neuroscience. Explaining the scientific basis for synaesthesia, Julia Simner considers how we can measure the effects synaesthesia has on the everyday lives of people living with it. Exploring the fascinating stories of different synaesthetes' experiences of the world, she also discusses the documented links between synaesthesia, childhood development, memory, personality, and artistic creativity, and the potential limitations synaesthesia might impose. ABOUT THE SERIES: The Very Short Introductions series from Oxford University Press contains hundreds of titles in almost every subject area. These pocket-sized books are the perfect way to get ahead in a new subject quickly. Our expert authors combine facts, analysis, perspective, new ideas, and enthusiasm to make interesting and challenging topics highly readable.

Prehistory

Luciano Floridi unpacks this fundamental concept - what information is, how it is measured, its value and meaning - cutting across the sciences and humanities, from DNA to the Internet, and the ethical issues related to privacy, copyright, and accessibility.

Combinatorics

How is a subway map different from other maps? What makes a knot knotted? What makes the Möbius strip one-sided? These are questions of topology, the mathematical study of properties preserved by twisting or stretching objects. In the 20th century topology became as broad and fundamental as algebra and geometry, with important implications for science, especially physics. In this Very Short Introduction Richard Earl gives a sense of the more visual elements of topology (looking at surfaces) as well as covering the formal definition of continuity. Considering some of the eye-opening examples that led mathematicians to recognize a need for studying topology, he pays homage to the historical people,

problems, and surprises that have propelled the growth of this field. ABOUT THE SERIES: The Very Short Introductions series from Oxford University Press contains hundreds of titles in almost every subject area. These pocket-sized books are the perfect way to get ahead in a new subject quickly. Our expert authors combine facts, analysis, perspective, new ideas, and enthusiasm to make interesting and challenging topics highly readable.

History: A Very Short Introduction

This Very Short Introduction deals with the social life of language, presenting a succinct account of the most important aspects - both "micro" and "macro" - of sociolinguistics, such as language variation, language attitudes, and the relationship between language and identity.

Sociolinguistics: A Very Short Introduction

Chaos exists in systems all around us. Even the simplest system of cause and effect can be subject to chaos, denying us accurate predictions of its behaviour, and sometimes giving rise to astonishing structures of large-scale order. Our growing understanding of Chaos Theory is having fascinating applications in the real world - from technology to global warming, politics, human behaviour, and even gambling on the stock market. Leonard Smith shows that we all have an intuitive understanding of chaotic systems. He uses accessible maths and physics (replacing complex equations with simple examples like pendulums, railway lines, and tossing coins) to explain the theory, and points to numerous examples in philosophy and literature (Edgar Allen Poe, Chang-Tzu, Arthur Conan Doyle) that illuminate the problems. The beauty of fractal patterns and their relation to chaos, as well as the history of chaos, and its uses in the real world and implications for the philosophy of science are all discussed in this Very Short Introduction. ABOUT THE SERIES: The Very Short Introductions series from Oxford University Press contains hundreds of titles in almost every subject area. These pocket-sized books are the perfect way to get ahead in a new subject quickly. Our expert authors combine facts, analysis, perspective, new ideas, and enthusiasm to make interesting and challenging topics highly readable.

Causation: A Very Short Introduction

Over the past sixty years, the spectacular growth of the technologies associated with the computer is visible for all to see and experience. Yet, the science underpinning this technology is less visible and

little understood outside the professional computer science community. As a scientific discipline, computer science stands alongside the likes of molecular biology and cognitive science as one of the most significant new sciences of the post Second World War era. In this Very Short Introduction, Subrata Dasgupta sheds light on these lesser known areas and considers the conceptual basis of computer science. Discussing algorithms, programming, and sequential and parallel processing, he considers emerging modern ideas such as biological computing and cognitive modelling, challenging the idea of computer science as a science of the artificial. ABOUT THE SERIES: The Very Short Introductions series from Oxford University Press contains hundreds of titles in almost every subject area. These pocket-sized books are the perfect way to get ahead in a new subject quickly. Our expert authors combine facts, analysis, perspective, new ideas, and enthusiasm to make interesting and challenging topics highly readable.

Metaphysics: A Very Short Introduction

Albert Camus is one of the best known philosophers of the twentieth century, as well as a widely read novelist. Active in the first half of the twentieth century, his views contributed to the rise of the philosophy known as absurdism, and his works have inspired numerous movies, and even pop songs, and are frequently referenced in contemporary politics. 0In this Very Short Introduction Oliver Gloag explores the life and work of a man full of contradictions, who occupied an ambiguous position in troubled and conflicted times. A fearless journalist who tirelessly investigated the terrible conditions of people in French-occupied Algeria in the 1930s, Camus also stated that the only salvation for France was to remain an "Arab Power". While he published articles during the German Occupation in a clandestine resistance newspaper, Camus also withdrew a chapter on Kafka to ensure that his philosophical treatise would pass the Nazi-controlled censorship. Over the course of his life he ranged from being strongly in favour of the death penalty to deploring it in his philosophy.. Following a broad chronological framework, Gloag explores the major philosophical and literary works of Camus in the historical context in which they were written and published, and analyses how the reception and popularity of these works are connected with contemporary political, social and cultural issues, shaping the ideological landscape that surrounds us.

The New Testament as Literature: A Very Short Introduction

Modern statistics is very different from the dry and dusty discipline of the popular imagination. In its place is an exciting subject which uses deep theory and powerful software tools to shed light and enable

understanding. And it sheds this light on all aspects of our lives, enabling astronomers to explore the origins of the universe, archaeologists to investigate ancient civilisations, governments to understand how to benefit and improve society, and businesses to learn how best to provide goods and services. Aimed at readers with no prior mathematical knowledge, this Very Short Introduction explores and explains how statistics work, and how we can decipher them. ABOUT THE SERIES: The Very Short Introductions series from Oxford University Press contains hundreds of titles in almost every subject area. These pocket-sized books are the perfect way to get ahead in a new subject quickly. Our expert authors combine facts, analysis, perspective, new ideas, and enthusiasm to make interesting and challenging topics highly readable.

Projects: A Very Short Introduction

What is a project? How are projects organized to deal with a complex, rapidly changing, and uncertain world? Why are projects the organization of the future? A project is a temporary organization and one-time process established to achieve a desired outcome. Projects range in size from small teams to large international joint-ventures and temporary coalitions of public and private organizations. What distinguishes projects from all other organizational activities - such as mass produced products and services - is that a project is finite in duration, lasting from hours, days, or weeks to years, and in some cases decades. Each project is disposable. It brings together people and resources to accomplish a goal and when the goal is accomplished, the organization disappears. When projects are complex, unpredictable, and changing, their plans have to be flexible and able to adjust to situations that cannot foreseen at the outset. In this Very Short Introduction Andrew Davies looks at how projects have developed since the industrial revolution to create the human-built world in which we live, work, and play. Considering some of our greatest endeavours such as the Erie Canal, Apollo Moon landing, Japanese product development, and Chinese ecocity projects, Davies identifies how projects are organized and managed to design and produce large and complex systems, cope with fast changing conditions, and deal with the immense uncertainties required to create breakthrough innovations in products and services. He concludes by considering how projects could be organized to address the challenges facing the post-industrial society of the 21st century. ABOUT THE SERIES: The Very Short Introductions series from Oxford University Press contains hundreds of titles in almost every subject area. These pocket-sized books are the perfect way to get ahead in a new subject quickly. Our expert authors combine facts, analysis, perspective, new ideas, and enthusiasm to make interesting and challenging topics highly readable.

Simply Complexity

Black holes are a constant source of fascination to many due to their mysterious nature. In this Very Short Introduction, Katherine Blundell addresses a variety of questions, including what a black hole actually is, how they are characterized and discovered, and what would happen if you came too close to one. She explains how black holes form and grow - by stealing material that belongs to stars, as well as how many there may be in the Universe. She also explores the large black holes found in the centres of galaxies, and how black holes give rise to quasars and other spectacular phenomena in the cosmos. ABOUT THE SERIES: The Very Short Introductions series from Oxford University Press contains hundreds of titles in almost every subject area. These pocket-sized books are the perfect way to get ahead in a new subject quickly. Our expert authors combine facts, analysis, perspective, new ideas, and enthusiasm to make interesting and challenging topics highly readable.

Black Holes: A Very Short Introduction

People value their powers of thinking and most of us are interested in why some people seem to drive a highly tuned Rolls Royce brain while others potter along with a merely serviceable Ford Fiesta. This Very Short Introduction describes what psychologists have discovered about how and why people differ in their thinking powers. The book takes readers from no knowledge about the science of human intelligence to a stage where they are able to make judgements for themselves about some of the key questions about human mental ability differences. Each chapter deals with a central issue that is both scientifically lively and of considerable general interest, and is structured around a diagram which is explained in the course of the chapter. The issues discussed include whether there are several different types of intelligence, whether intelligence differences are caused by genes or the environment, the biological basis of intelligence differences, and whether intelligence declines or increases as we grow older. ABOUT THE SERIES: The Very Short Introductions series from Oxford University Press contains hundreds of titles in almost every subject area. These pocket-sized books are the perfect way to get ahead in a new subject quickly. Our expert authors combine facts, analysis, perspective, new ideas, and enthusiasm to make interesting and challenging topics highly readable.

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