Linked The New Science Of Networks

An introduction to a broad range of topics in deep learning, covering mathematical and conceptual background, deep learning techniques used in industry, and research perspectives. "Written by three experts in the field, Deep Learning is the only comprehensive book on the subject." —Elon Musk, cochair of OpenAI; cofounder and CEO of Tesla and SpaceX Deep learning is a form of machine learning that enables computers to learn from experience and understand the world in terms of a hierarchy of concepts. Because the computer gathers knowledge from experience, there is no need for a human computer operator to formally specify all the knowledge that the computer needs. The hierarchy of concepts allows the computer to learn complicated concepts by building them out of simpler ones; a graph of these hierarchies would be many layers deep. This book introduces a broad range of topics in deep learning. The text offers mathematical and conceptual background, covering relevant concepts in linear algebra, probability theory and information theory, numerical computation, and machine learning. It describes deep learning techniques used by practitioners in industry, including deep feedforward networks, regularization, optimization algorithms, convolutional networks, sequence modeling, and

practical methodology; and it surveys such applications as natural language processing, speech recognition, computer vision, online recommendation systems, bioinformatics, and videogames. Finally, the book offers research perspectives, covering such theoretical topics as linear factor models, autoencoders, representation learning, structured probabilistic models, Monte Carlo methods, the partition function, approximate inference, and deep generative models. Deep Learning can be used by undergraduate or graduate students planning careers in either industry or research, and by software engineers who want to begin using deep learning in their products or platforms. A website offers supplementary material for both readers and instructors. "Over a decade after its publication, one book on dating has people firmly in its grip." —The New York Times We already rely on science to tell us what to eat, when to exercise, and how long to sleep. Why not use science to help us improve our relationships? In this revolutionary book, psychiatrist and neuroscientist Dr. Amir Levine and Rachel Heller scientifically explain why why some people seem to navigate relationships effortlessly, while others struggle. Discover how an understanding of adult attachment—the most advanced relationship science in existence today—can help us find and sustain love. Pioneered by psychologist John Bowlby in the 1950s, the field of attachment posits that each of us behaves

in relationships in one of three distinct ways: • Anxious people are often preoccupied with their relationships and tend to worry about their partner's ability to love them back • Avoidant people equate intimacy with a loss of independence and constantly try to minimize closeness. • Secure people feel comfortable with intimacy and are usually warm and loving. Attached guides readers in determining what attachment style they and their mate (or potential mate) follow, offering a road map for building stronger, more fulfilling connections with the people they love.

This guide is based on contemporary information from astronomers around the world, and space probes around the galaxy. It contains illustrations of exploding stars and how black holes are formed, star maps so the reader can navigate the night sky, and recommended internet links.

Contains experiments, activities, A-Z dictionary, review questions and suggested websites for each topic.

NEW YORK TIMES BEST SELLER • A TODAY SHOW #READWITHJENNA BOOK CLUB PICK! • The moving story of an undocumented child living in poverty in the richest country in the world—an incandescent debut from an astonishing new talent "Heartrending, unvarnished, and powerfully courageous, this account of growing up undocumented in America will never leave you." —Gish

Jen, author of The Resisters In Chinese, the word for America, Mei Guo, translates directly to "beautiful country." Yet when seven-year-old Qian arrives in New York City in 1994 full of curiosity, she is overwhelmed by crushing fear and scarcity. In China, Qian's parents were professors; in America, her family is "illegal" and it will require all the determination and small joys they can muster to survive. In Chinatown, Qian's parents labor in sweatshops. Instead of laughing at her jokes, they fight constantly, taking out the stress of their new life on one another. Shunned by her classmates and teachers for her limited English, Qian takes refuge in the library and masters the language through books, coming to think of The Berenstain Bears as her first American friends. And where there is delight to be found, Qian relishes it: her first bite of gloriously greasy pizza, weekly "shopping days," when Qian finds small treasures in the trash lining Brooklyn's streets, and a magical Christmas visit to Rockefeller Center—confirmation that the New York City she saw in movies does exist after all. But then Qian's headstrong Ma Ma collapses, revealing an illness that she has kept secret for months for fear of the cost and scrutiny of a doctor's visit. As Ba Ba retreats further inward, Qian has little to hold onto beyond his constant refrain: Whatever happens, say that you were born here, that you've always lived here. Inhabiting her childhood perspective with exquisite lyric clarity and

unforgettable charm and strength, Qian Julie Wang has penned an essential American story about a family fracturing under the weight of invisibility, and a girl coming of age in the shadows, who never stops seeking the light.

Eat your way to better health with this New York Times bestseller on food's ability to help the body heal itself from cancer, dementia, and dozens of other avoidable diseases. Forget everything you think you know about your body and food, and discover the new science of how the body heals itself. Learn how to identify the strategies and dosages for using food to transform your resilience and health in Eat to Beat Disease. We have radically underestimated our body's power to transform and restore our health. Pioneering physician scientist, Dr. William Li, empowers readers by showing them the evidence behind over 200 health-boosting foods that can starve cancer, reduce your risk of dementia, and beat dozens of avoidable diseases. Eat to Beat Disease isn't about what foods to avoid, but rather is a life-changing guide to the hundreds of healing foods to add to your meals that support the body's defense systems, including: Plums Cinnamon Jasmine tea Red wine and beer Black Beans San Marzano tomatoes Olive oil Pacific oysters Cheeses like Jarlsberg, Camembert and cheddar Sourdough bread The book's plan shows you how to integrate the foods you already love into any diet or health plan to activate your body's health defense

systems-Angiogenesis, Regeneration, Microbiome, DNA Protection, and Immunity-to fight cancer, diabetes, cardiovascular, neurodegenerative autoimmune diseases, and other debilitating conditions. Both informative and practical, Eat to Beat Disease explains the science of healing and prevention, the strategies for using food to actively transform health, and points the science of wellbeing and disease prevention in an exhilarating new direction.

This text blends traditional introductory physics topics with an emphasis on human applications and an expanded coverage of modern physics topics, such as the existence of atoms and the conversion of mass into energy. Topical coverage is combined with the author's lively, conversational writing style, innovative features, the direct and clear manner of presentation, and the emphasis on problem solving and practical applications.

A New York Times Bestseller A Washington Post Notable Nonfiction Book of 2020 Named a Best Book of 2020 by NPR "A fascinating scientific, cultural, spiritual and evolutionary history of the way humans breathe—and how we've all been doing it wrong for a long, long time." —Elizabeth Gilbert, author of Big Magic and Eat Pray Love No matter what you eat, how much you exercise, how skinny or young or wise you are, none of it matters if you're not breathing properly. There is nothing more essential to our health and well-being than breathing: take

air in, let it out, repeat twenty-five thousand times a day. Yet, as a species, humans have lost the ability to breathe correctly, with grave consequences. Journalist James Nestor travels the world to figure out what went wrong and how to fix it. The answers aren't found in pulmonology labs, as we might expect, but in the muddy digs of ancient burial sites, secret Soviet facilities, New Jersey choir schools, and the smoggy streets of São Paulo. Nestor tracks down men and women exploring the hidden science behind ancient breathing practices like Pranayama, Sudarshan Kriya, and Tummo and teams up with pulmonary tinkerers to scientifically test long-held beliefs about how we breathe. Modern research is showing us that making even slight adjustments to the way we inhale and exhale can jump-start athletic performance; rejuvenate internal organs; halt snoring, asthma, and autoimmune disease; and even straighten scoliotic spines. None of this should be possible, and yet it is. Drawing on thousands of years of medical texts and recent cutting-edge studies in pulmonology, psychology, biochemistry, and human physiology, Breath turns the conventional wisdom of what we thought we knew about our most basic biological function on its head. You will never breathe the same again.
A GOOD MORNING AMERICA BOOK CLUB PICK "Chandler Baker, queen of the feminist thriller, has delivered once again! The Husbands is a poignant

exploration of what it would take for women to have it all." —Sally Hepworth, bestselling author of The Good Sister To what lengths will a woman go for a little more help from her husband? Nora Spangler is a successful attorney but when it comes to domestic life, she packs the lunches, schedules the doctor appointments, knows where the extra paper towel rolls are, and designs and orders the holiday cards. Her husband works hard, too... but why does it seem like she is always working so much harder? When the Spanglers go house hunting in Dynasty Ranch, an exclusive suburban neighborhood, Nora meets a group of high-powered women—a tech CEO, a neurosurgeon, an award-winning therapist, a bestselling author—with enviably supportive husbands. When she agrees to help with a resident's wrongful death case, she is pulled into the lives of the women there. She finds the air is different in Dynasty Ranch. The women aren't hanging on by a thread. But as the case unravels, Nora uncovers a plot that may explain the secret to having-it-all. One that's worth killing for. Calling to mind a Stepford Wives gender-swap, New York Times bestselling author of Whisper Network Chandler Baker's The Husbands imagines a world where the burden of the "second shift" is equally shared—and what it may take to get there. "Utterly engrossing and thoroughly timely, The Husbands is both a gripping, well-crafted mystery and an insightful critique of motherhood and marriage in the

modern age--working mothers everywhere will feel seen in the best possible way." —Kimberly McCreight, New York Times bestselling author of A Good Marriage

A neurobiologist reexamines the personal nature of perception in this groundbreaking guide to a new model for our senses. We think of perception as a passive, mechanical process, as if our eyes are cameras and our ears microphones. But as neurobiologist Susan R. Barry argues, perception is a deeply personal act. Our environments, our relationships, and our actions shape and reshape our senses throughout our lives. This idea is no more apparent than in the cases of people who gain senses as adults. Barry tells the stories of Liam McCoy, practically blind from birth, and Zohra Damji, born deaf, in the decade following surgeries that restored their senses. As Liam and Zohra learned entirely new ways of being, Barry discovered an entirely new model of the nature of perception. Coming to Our Senses is a celebration of human resilience and a powerful reminder that, before you can really understand other people, you must first recognize that their worlds are fundamentally different from your own.

"A 22-volume, highly illustrated, A-Z general encyclopedia for all ages, featuring sections on how to use World Book, other research aids, pronunciation key, a student guide to better writing, speaking, and research skills, and comprehensive

index"--

Text and illustrations offer a detailed look at human anatomy and physiology, with Internet links for further information.

An unforgettable novel from the New York Times bestseller Gordon Korman Link, Michael, and Dana live in a quiet town. But it's woken up very quickly when someone sneaks into school and vandalizes it with a swastika. Nobody can believe it. How could such a symbol of hate end up in the middle of their school? Who would do such a thing? Because Michael was the first person to see it, he's the first suspect. Because Link is one of the most popular guys in school, everyone's looking to him to figure it out. And because Dana's the only Jewish girl in the whole town, everyone's treating her more like an outsider than ever. The mystery deepens as more swastikas begin to appear. Some students decide to fight back and start a project to bring people together instead of dividing them further. The closer Link, Michael, and Dana get to the truth, the more there is to face-not just the crimes of the present, but the crimes of the past. With Linked, Gordon Korman, the author of the acclaimed novel Restart, poses a mystery for all readers where the who did it? isn't nearly as important as the why?

In her first novel since The Quick and the Dead (a finalist for the Pulitzer Prize), the legendary writer takes us into an uncertain landscape after an environmental

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

extraordinary transformation. Set between London, Cap d'Antibes, Big Sur, and a rewilded corner of Sussex, this thrilling, ambitious novel is about the headlong pursuit of knowledge—for the purposes of pleasure, revelation, money, sanity, or survival—and the consequences of fleeing from what we know about others and ourselves. When Olivia meets a new lover just as she is welcoming her best friend, Lucy, back from New York, her dedicated academic life expands precipitously. Her connection to Francis, a committed naturalist living off the grid, is immediate and startling. Eager to involve Lucy in her joy, Olivia introduces the two—but Lucy has received shocking news of her own that binds the trio unusually close. Over the months that follow, Lucy's boss, Hunter, Olivia's psychoanalyst parents, and a young man named Sebastian are pulled into the friends' orbit, and not one of them will emerge unchanged. Expansive, playful, and compassionate, Edward St. Aubyn's Double Blind investigates themes of inheritance, determinism, freedom, consciousness, and the stories we tell about ourselves. St. Aubyn's major new novel is as compelling about ecology, psychoanalysis, genetics, and neuroscience as it is about love, fear, and courage. Most of all, it is a perfect expression of the interconnections it sets out to examine, and a moving evocation of an imagined world that is deeply intelligent, often tender, curious, and very much alive.

NEW YORK TIMES BEST SELLER • From the world's leading forest ecologist who forever changed how people view trees and their connections to one another and to other living things in the forest—a moving, deeply personal journey of discovery Suzanne Simard is a pioneer on the frontier of plant communication and intelligence; she's been compared to Rachel Carson, hailed as a scientist who conveys complex, technical ideas in a way that is dazzling and profound. Her work has influenced filmmakers (the Tree of Souls of James Cameron's Avatar) and her TED talks have been viewed by more than 10 million people worldwide. Now, in her first book, Simard brings us into her world, the intimate world of the trees, in which she brilliantly illuminates the fascinating and vital truths--that trees are not simply the source of timber or pulp, but are a complicated, interdependent circle of life; that forests are social, cooperative creatures connected through underground networks by which trees communicate their vitality and vulnerabilities with communal lives not that different from our own. Simard writes--in inspiring, illuminating, and accessible ways—how trees, living side by side for hundreds of years, have evolved, how they perceive one another, learn and adapt their behaviors, recognize neighbors, and remember the past; how they have agency about the future; elicit warnings and mount defenses, compete and cooperate with one another with sophistication,

characteristics ascribed to human intelligence, traits that are the essence of civil societies--and at the center of it all, the Mother Trees: the mysterious, powerful forces that connect and sustain the others that surround them. Simard writes of her own life, born and raised into a logging world in the rainforests of British Columbia, of her days as a child spent cataloging the trees from the forest and how she came to love and respect them—embarking on a journey of discovery, and struggle. And as she writes of her scientific quest, she writes of her own journey--of love and loss, of observation and change, of risk and reward, making us understand how deeply human scientific inquiry exists beyond data and technology, that it is about understanding who we are and our place in the world, and, in writing of her own life, we come to see the true connectedness of the Mother Tree that nurtures the forest in the profound ways that families and human societies do, and how these inseparable bonds enable all our survival. In the 1980's, James Gleick's Chaos introduced the world to complexity. Now, Albert-László Barabási's Linked reveals the next major scientific leap: the study of networks. We've long suspected that we live in a small world, where everything is connected to everything else. Indeed, networks are pervasive--from the human brain to the Internet to the economy to our group of friends. These linkages, it turns out, aren't random. All networks, to the great surprise of scientists, have an

underlying order and follow simple laws. Understanding the structure and behavior of these networks will help us do some amazing things, from designing the optimal organization of a firm to stopping a disease outbreak before it spreads catastrophically.In Linked, Barabási, a physicist whose work has revolutionized the study of networks, traces the development of this rapidly unfolding science and introduces us to the scientists carrying out this pioneering work. These "new cartographers" are mapping networks in a wide range of scientific disciplines, proving that social networks, corporations, and cells are more similar than they are different, and providing important new insights into the interconnected world around us. This knowledge, says Barabási, can shed light on the robustness of the Internet, the spread of fads and viruses, even the future of democracy. Engaging and authoritative, Linked provides an exciting preview of the next century in science, guaranteed to be transformed by these amazing discoveries.From Linked:This book has a simple message: think networks. It is about how networks emerge, what they look like, and how they evolve. It aims to develop a web-based view of nature, society, and technology, providing a unified framework to better understand issues ranging from the vulnerability of the Internet to the spread of diseases. Networks are present everywhere. All we need is an eye for them...We will see the challenges doctors face when they

attempt to cure a disease by focusing on a single molecule or gene, disregarding the complex interconnected nature of the living matter. We will see that hackers are not alone in attacking networks: we all play Goliath, firing shots at a fragile ecological network that, without further support, could soon replicate our worst nightmares by turning us into an isolated group of species...Linked is meant to be an eye-opening trip that challenges you to walk across disciplines by stepping out of the box of reductionism. It is an invitation to explore link by link the next scientific revolution: the new science of networks.

David Mitchell's Cloud Atlas meets Octavia Butler's Earthseed series, as acclaimed author Monica Byrne (The Girl in the Road) spins a brilliant multigenerational saga spanning two thousand years, from the collapse of the ancient Maya to a far-future utopia on the brink of civil war. The Actual Star takes readers on a journey over two millennia and six continents —telling three powerful tales a thousand years apart, all of them converging in the same cave in the Belizean jungle. Braided together are the stories of a pair of teenage twins who ascend the throne ofa Maya kingdom; a young American woman on a trip of self-discovery in Belize; and two dangerous charismatics vying for the leadership of a new religion and racing toward a confrontation that will determine the fate of the few humans left on Earth after massive climate change. In each era, a

reincarnated trinity of souls navigates the entanglements of tradition and progress, sister and stranger, and love and hate—until all of their age-old questions about the nature of existence converge deep underground, where only in complete darkness can they truly see. The Actual Star is a feast of ideas about where humanity came from, where we are now, and where we're going—and how, in every age, the same forces that drive us apart also bind us together. Illustrated throughout in full colour, this pioneering text is the only book you need for an introduction to network science.

A revolutionary new theory showing how we can predict human behavior-from a radical genius and bestselling author Can we scientifically predict our future? Scientists and pseudo scientists have been pursuing this mystery for hundreds and perhaps thousands of years. But now, astonishing new research is revealing patterns in human behavior previously thought to be purely random. Precise, orderly, predictable patterns... Albert Laszlo Barabasi, already the world's preeminent researcher on the science of networks, describes his work on this profound mystery in Bursts, a stunningly original investigation into human nature. His approach relies on the digital reality of our world, from mobile phones to the Internet and email, because it has turned society into a huge research laboratory. All those electronic trails of time stamped texts, voicemails, and internet searches

add up to a previously unavailable massive data set of statistics that track our movements, our decisions, our lives. Analysis of these trails is offering deep insights into the rhythm of how we do everything. His finding? We work and fight and play in short flourishes of activity followed by next to nothing. The pattern isn't random, it's "bursty." Randomness does not rule our lives in the way scientists have assumed up until now. Illustrating this revolutionary science, Barabasi artfully weaves together the story of a 16th century burst of human activity-a bloody medieval crusade launched in his homeland, Transylvania-with the modern tale of a contemporary artist hunted by the FBI through our post 9/11 surveillance society. These narratives illustrate how predicting human behavior has long been the obsession, sometimes the duty, of those in power. Barabási's astonishingly wide range of examples from seemingly unrelated areas include how dollar bills move around the U.S., the pattern everyone follows in writing email, the spread of epidemics, and even the flight patterns of albatross. In all these phenomena a virtually identical, mathematically described bursty pattern emerges. Bursts reveals what this amazing new research is showing us about where individual spontaneity ends and predictability in human behavior begins. The way you think about your own potential to do something truly extraordinary will never be the same.

"This book is a message from autistic people to their parents, friends, teachers, coworkers and doctors showing what life is like on the spectrum. It's also my love letter to autistic people. For too long, we have been forced to navigate a world where all the road signs are written in another language." With a reporter's eye and an insider's perspective, Eric Garcia shows what it's like to be autistic across America. Garcia began writing about autism because he was frustrated by the media's coverage of it; the myths that the disorder is caused by vaccines, the narrow portrayals of autistic people as white men working in Silicon Valley. His own life as an autistic person didn't look anything like that. He is Latino, a graduate of the University of North Carolina, and works as a journalist covering politics in Washington D.C. Garcia realized he needed to put into writing what so many autistic people have been saying for years; autism is a part of their identity, they don't need to be fixed. In We're Not Broken, Garcia uses his own life as a springboard to discuss the social and policy gaps that exist in supporting those on the spectrum. From education to healthcare, he explores how autistic people wrestle with systems that were not built with them in mind. At the same time, he shares the experiences of all types of autistic people, from those with higher support needs, to autistic people of color, to those in the LGBTQ community. In doing so, Garcia gives his community a platform to articulate their own needs,

rather than having others speak for them, which has been the standard for far too long.

The #1 New York Times bestseller. Over 3 million copies sold! Tiny Changes, Remarkable Results No matter your goals, Atomic Habits offers a proven framework for improving--every day. James Clear, one of the world's leading experts on habit formation, reveals practical strategies that will teach you exactly how to form good habits, break bad ones, and master the tiny behaviors that lead to remarkable results. If you're having trouble changing your habits, the problem isn't you. The problem is your system. Bad habits repeat themselves again and again not because you don't want to change, but because you have the wrong system for change. You do not rise to the level of your goals. You fall to the level of your systems. Here, you'll get a proven system that can take you to new heights. Clear is known for his ability to distill complex topics into simple behaviors that can be easily applied to daily life and work. Here, he draws on the most proven ideas from biology, psychology, and neuroscience to create an easy-to-understand guide for making good habits inevitable and bad habits impossible. Along the way, readers will be inspired and entertained with true stories from Olympic gold medalists, award-winning artists, business leaders, life-saving physicians, and star comedians who have used the science of small habits to

master their craft and vault to the top of their field. Learn how to: • make time for new habits (even when life gets crazy); • overcome a lack of motivation and willpower; • design your environment to make success easier; • get back on track when you fall off course; ...and much more. Atomic Habits will reshape the way you think about progress and success, and give you the tools and strategies you need to transform your habits--whether you are a team looking to win a championship, an organization hoping to redefine an industry, or simply an individual who wishes to quit smoking, lose weight, reduce stress, or achieve any other goal.

An architect of network theory summarizes his team's endeavor to create a blueprint of the world's networks, citing the scientific elements of the Internet, economies, terrorist organizations, and other knowledge-based groups. Reprint. Finalist for Foreword Magazine's 2011 Book of the Year With his knack for making science intelligible for the layman, and his ability to illuminate scientific concepts through analogy and reference to personal experience, James Zull offers the reader an engrossing and coherent introduction to what neuroscience can tell us about cognitive development through experience, and its implications for education. Stating that educational change is underway and that the time is ripe to recognize that "the primary objective of education is to understand human

learning" and that "all other objectives depend on achieving this understanding", James Zull challenges the reader to focus on this purpose, first for her or himself, and then for those for whose learning they are responsible. The book is addressed to all learners and educators – to the reader as self-educator embarked on the journey of lifelong learning, to the reader as parent, and to readers who are educators in schools or university settings, as well as mentors and trainers in the workplace. In this work, James Zull presents cognitive development as a journey taken by the brain, from an organ of organized cells, blood vessels, and chemicals at birth, through its shaping by experience and environment into potentially to the most powerful and exquisite force in the universe, the human mind. Zull begins his journey with sensory-motor learning, and how that leads to discovery, and discovery to emotion. He then describes how deeper learning develops, how symbolic systems such as language and numbers emerge as tools for thought, how memory builds a knowledge base, and how memory is then used to create ideas and solve problems. Along the way he prompts us to think of new ways to shape educational experiences from early in life through adulthood, informed by the insight that metacognition lies at the root of all learning. At a time when we can expect to change jobs and careers frequently during our lifetime, when technology is changing society at break-neck

speed, and we have instant access to almost infinite information and opinion, he argues that self-knowledge, awareness of how and why we think as we do, and the ability to adapt and learn, are critical to our survival as individuals; and that the transformation of education, in the light of all this and what neuroscience can tell us, is a key element in future development of healthy and productive societies.

When Elissa learns her telepathic twin is the subject of government experiments, the girls find themselves on the run with secrets worth killing for in this futuristic, romantic thriller. "Sparked with danger and tinged with romance, Linked is a roller-coaster ride into space that just about everyone should enjoy" (Booklist, starred review). Elissa used to have it all: looks, popularity, and a bright future. Now, all she has is nightmarish visions and unexplained bruises. Finally, she's promised a cure, and a surgery is scheduled. But on the eve of the procedure, she discovers the truth behind her visions: She's seeing the world through another girl's eyes. A world filled with pain and wires and weird machines. Elissa follows her visions, only to find a battered, broken girl on the run. A girl—Lin—who looks exactly like Elissa, down to the matching bruises. A twin she never knew existed. Elissa helps Lin evade the government agents who are ruthlessly tracking her down, but they're struggling to avoid capture, and soon Elissa is forced to turn to the only person who can help: Cadan, her brother's infuriating, arrogant best friend, and new graduate of the SFI space flight academy. Cadan is their one chance at safety. But Lin is too valuable to let go, and Elissa has knowledge that is too dangerous. The government will stop at nothing to get them back. "Action-packed and thoroughly engrossing,

this novel offers readers a classic sci-fi, space-travel adventure at its best" (BCCB). "Pollan keeps you turning the pages . . . cleareyed and assured." —New York Times A #1 New York Times Bestseller, New York Times Book Review 10 Best Books of 2018, and New York Times Notable Book A brilliant and brave investigation into the medical and scientific revolution taking place around psychedelic drugs--and the spellbinding story of his own life-changing psychedelic experiences When Michael Pollan set out to research how LSD and psilocybin (the active ingredient in magic mushrooms) are being used to provide relief to people suffering from difficult-to-treat conditions such as depression, addiction and anxiety, he did not intend to write what is undoubtedly his most personal book. But upon discovering how these remarkable substances are improving the lives not only of the mentally ill but also of healthy people coming to grips with the challenges of everyday life, he decided to explore the landscape of the mind in the first person as well as the third. Thus began a singular adventure into various altered states of consciousness, along with a dive deep into both the latest brain science and the thriving underground community of psychedelic therapists. Pollan sifts the historical record to separate the truth about these mysterious drugs from the myths that have surrounded them since the 1960s, when a handful of psychedelic evangelists inadvertently catalyzed a powerful backlash against what was then a promising field of research. A unique and elegant blend of science, memoir, travel writing, history, and medicine, How to Change Your Mind is a triumph of participatory journalism. By turns dazzling and edifying, it is the gripping account of a journey to an exciting and unexpected new frontier in our understanding of the mind, the self, and our place in the world. The true subject of Pollan's "mental travelogue" is not just psychedelic drugs but also the eternal puzzle of human consciousness and how, in a world that offers us

both suffering and joy, we can do our best to be fully present and find meaning in our lives. FINALIST FOR THE PULITZER PRIZE • NATIONAL BESTSELLER • A bewitching story collection from a writer hailed as "the most darkly playful voice in American fiction" (Michael Chabon) and "a national treasure" (Neil Gaiman). NAMED ONE OF THE BEST BOOKS OF THE YEAR BY BookPage • BuzzFeed • Chicago Tribune • Kirkus Reviews • NPR • San Francisco Chronicle • Slate • Time • Toronto Star • The Washington Post She has been hailed by Michael Chabon as "the most darkly playful voice in American fiction" and by Neil Gaiman as "a national treasure." Now Kelly Link's eagerly awaited new collection—her first for adult readers in a decade—proves indelibly that this bewitchingly original writer is among the finest we have. Link has won an ardent following for her ability, with each new short story, to take readers deeply into an unforgettable, brilliantly constructed fictional universe. The nine exquisite examples in this collection show her in full command of her formidable powers. In "The Summer People," a young girl in rural North Carolina serves as uneasy caretaker to the mysterious, never-quite-glimpsed visitors who inhabit the cottage behind her house. In "I Can See Right Through You," a middle-aged movie star makes a disturbing trip to the Florida swamp where his former on- and off-screen love interest is shooting a ghost-hunting reality show. In "The New Boyfriend," a suburban slumber party takes an unusual turn, and a teenage friendship is tested, when the spoiled birthday girl opens her big present: a life-size animated doll. Hurricanes, astronauts, evil twins, bootleggers, Ouija boards, iguanas, The Wizard of Oz, superheroes, the Pyramids . . . These are just some of the talismans of an imagination as capacious and as full of wonder as that of any writer today. But as fantastical as these stories can be, they are always grounded by sly humor and an innate generosity of

feeling for the frailty—and the hidden strengths—of human beings. In Get in Trouble, this one-of-a-kind talent expands the boundaries of what short fiction can do. Praise for Get in Trouble "Ridiculously brilliant . . . These stories make you laugh while staring into the void."—The Boston Globe "When it comes to literary magic, Link is the real deal: clever, surprising, affecting, fluid and funny."—San Francisco Chronicle

In this groundbreaking union of art and science, rocker-turned-neuroscientist Daniel J. Levitin explores the connection between music—its performance, its composition, how we listen to it, why we enjoy it—and the human brain. Taking on prominent thinkers who argue that music is nothing more than an evolutionary accident, Levitin poses that music is fundamental to our species, perhaps even more so than language. Drawing on the latest research and on musical examples ranging from Mozart to Duke Ellington to Van Halen, he reveals: • How composers produce some of the most pleasurable effects of listening to music by exploiting the way our brains make sense of the world • Why we are so emotionally attached to the music we listened to as teenagers, whether it was Fleetwood Mac, U2, or Dr. Dre • That practice, rather than talent, is the driving force behind musical expertise • How those insidious little jingles (called earworms) get stuck in our head A Los Angeles Times Book Award finalist, This Is Your Brain on Music will attract readers of Oliver Sacks and David Byrne, as it is an unprecedented, eye-opening investigation into an obsession at the heart of human nature.

A cocktail party. A terrorist cell. Ancient bacteria. An international conglomerate. All are networks, and all are a part of a surprising scientific revolution. In Linked, Albert-László Barabási, the nation's foremost expert in the new science of networks, takes us on an intellectual adventure to prove that social networks, corporations, and living organisms are

more similar than previously thought. Barabási shows that grasping a full understanding of network science will someday allow us to design blue-chip businesses, stop the outbreak of deadly diseases, and influence the exchange of ideas and information. Just as James Gleick and the Erdos–Rényi model brought the discovery of chaos theory to the general public, Linked tells the story of the true science of the future and of experiments in statistical mechanics on the internet, all vital parts of what would eventually be called the Barabási–Albert model. "Sleep is one of the most important but least understood aspects of our life, wellness, and longevity ... An explosion of scientific discoveries in the last twenty years has shed new light on this fundamental aspect of our lives. Now ... neuroscientist and sleep expert Matthew Walker gives us a new understanding of the vital importance of sleep and dreaming"--Amazon.com. The groundbreaking book that reveals the indisputable scientific laws that turn achievements into success and shows how you can use them to your own advantage. In The Formula, Barabasi, one of the world's leading experts on the science of networks, reveals the unspoken rules behind who gets ahead and why, and outline the five laws that govern this phenomenon and how we can use them to succeed. Drawing on Big Data research that covers everyone from the ace fighter pilot The Red Baron to graffiti artist Jean-Michel Basquiat; Miles Davis and his recording of 'Kind of Blue' to Marcel Duchamp and Tiger Woods, Barabasi shows why success can come at any time, as long as we are persistent, why in successful teams one person gets the lion's share of the credit and why the last interviewee almost always gets the job, Unveiling the scientific principles that drive success, and how to leverage them, Barabasi offers a new understanding of the very foundation of how people excel in today's society, and how to harness these principles for yourself.

LinkedThe New Science Of Networks Science Of NetworksBasic Books
"This is not just an important but an imperative project: to approach the problem of randomness and success using the state of the art scientific arsenal we have. Barabasi is the person."--Nassim Nicholas Taleb, author of the New York Times bestselling The Black Swan and Distinguished Professor of Risk Engineering at NYU An international bestseller In the bestselling tradition of Malcom Gladwell, James Gleick, and Nate Silver, prominent professor László Barabási gives us a trailblazing book that promises to transform the very foundations of how our success-obsessed society approaches their professional careers, life pursuits and long-term goals. Too often, accomplishment does not equal success. We did the work but didn't get the promotion; we played hard but weren't recognized; we had the idea but didn't get the credit. We convince ourselves that talent combined with a strong work ethic is the key to getting ahead, but also realize that combination often fails to yield results, without any deeper understanding as to why. Recognizing this striking disconnect, the author, along with a team of renowned researchers and some of the most advanced data-crunching systems on the planet, dedicated themselves to one goal: uncovering that ever-elusive link between performance and success. Now, based on years of academic research, The Formula finally unveils the groundbreaking discoveries of their pioneering study, not only highlighting the scientific and mathematic principles that underpin success, but also revolutionizing our understanding of: Why performance is necessary but not

adequate Why "Experts" are often wrong How to assemble a creative team primed for success How to most effectively engage our networks And much more.

When a small-town family is pushed to the brink, how far will they go to protect one of their own? An edgy, propulsive read about what we will do in the name of love and blood Tony has always looked out for his younger brother, Nick. So when he's called to a hospital bed where Nick is lying battered and bruised after a violent sexual assault, his protective instincts flare, and a white-hot rage begins to build. As a small-town New England lawyer, Tony's wife, Julia, has cases involving kids all the time. When Detective Rice gets assigned to this one, Julia feels they're in good hands. Especially because she senses that Rice, too, understands how things can quickly get complicated. Very complicated. After all, one moment Nick was having a drink with a handsome stranger; the next, he was at the center of an investigation threatening to tear not only him, but his entire family, apart. And now his attacker, out on bail, is disputing Nick's version of what happened. As Julia tries to help her brother-in-law, she sees Tony's desire for revenge, to fix things for Nick, getting out of control. Tony is starting to scare her. And before long, she finds herself asking: does she really know what her husband is capable of? Or of what she herself is? Exploring elements of doubt, tragedy, suspense, and justice, The Damage is an all-consuming read that marks the explosive debut of an extraordinary new writer.

A comprehensive guide to investment guarantees in equity-linked life insurance Due to

the convergence of financial and insurance markets, new forms of investment guarantees are emerging which require financial service professionals to become savvier in modeling and risk management. With chapters that discuss stock return models, dynamic hedging, risk measures, Markov Chain Monte Carlo estimation, and much more, this one-stop reference contains the valuable insights and proven techniques that will allow readers to better understand the theory and practice of investment guarantees and equity-linked insurance policies. Mary Hardy, PhD (Waterloo, Ontario, Canada), is an Associate Professor and Associate Chair of Actuarial Science at the University of Waterloo and is a Fellow of the Institute of Actuaries and an Associate of the Society of Actuaries, where she is a frequent speaker. Her research covers topics in life insurance solvency and risk management, with particular emphasis on equity-linked insurance. Hardy is an Associate Editor of the North American Actuarial Journal and the ASTIN Bulletin and is a Deputy Editor of the British Actuarial Journal.
A strikingly original exploration of what it might mean to be authentically human in the age of artificial intelligence, from the author of the critically-acclaimed Interior States. "Meghan O'Gieblyn is a brilliant and humble philosopher, and her book is an explosively thought-provoking, candidly personal ride I wished never to end ... This book is such an original synthesis of ideas and disclosures. It introduces what will soon be called the O'Gieblyn genre of essay writing." —Heidi Julavits, author of The Folded

Clock For most of human history the world was a magical and enchanted place ruled by forces beyond our understanding. The rise of science and Descartes's division of mind from world made materialism our ruling paradigm, in the process asking whether our own consciousness—i.e., souls—might be illusions. Now the inexorable rise of technology, with artificial intelligences that surpass our comprehension and control, and the spread of digital metaphors for self-understanding, the core questions of existence—identity, knowledge, the very nature and purpose of life itself—urgently require rethinking. Meghan O'Gieblyn tackles this challenge with philosophical rigor, intellectual reach, essayistic verve, refreshing originality, and an ironic sense of contradiction. She draws deeply and sometimes humorously from her own personal experience as a formerly religious believer still haunted by questions of faith, and she serves as the best possible guide to navigating the territory we are all entering.

A raw and funny memoir about sex, dating, and relationships in the digital age, intertwined with a brilliant investigation into the challenges to love and intimacy wrought by dating apps, by firebrand New York Times–bestselling author Nancy Jo Sales At forty-nine, famed Vanity Fair writer Nancy Jo Sales was nursing a broken heart and wondering, "How did I wind up alone?" On the advice of a young friend, she downloaded Tinder, then a brand-new dating app. What followed was a raucous ride through the world of online dating. Sales, an award-winning journalist and single mom, became a leading critic of the online dating industry, reporting and writing articles and

making her directorial debut with the HBO documentary Swiped: Hooking Up in the Digital Age. Meanwhile, she was dating a series of younger men, eventually falling in love with a man less than half her age. Nothing Personal is Sales's memoir of coming-of-middle-age in the midst of a new dating revolution. She is unsparingly honest about her own experience of addiction to dating apps and hilarious in her musings about dick pics, sexting, dating FOMO, and more. Does Big Dating really want us to find love, she asks, or just keep on using its apps? ?Fiercely feminist, Nothing Personal investigates how Big Dating has overwhelmed the landscape of dating, cynically profiting off its users' deepest needs and desires. Looking back through the history of modern courtship and her own relationships, Sales examines how sexism has always been a factor for women in dating, and asks what the future of courtship will bring, if left to the designs of Silicon Valley's tech giants—especially in a time of social distancing and a global pandemic, when the rules of romance are once again changing.

One of 2021's Most Highly Anticipated New Books—Newsweek One of The 20 Leadership Books to Read in 2020—Adam Grant One of The Best New Wellness Books Hitting Shelves in January 2021—Shape.com A Top Business Book for January 2021—Financial Times A Next Big Idea Club Nominee Social Chemistry will utterly transform the way you think about "networking." Understanding the contours of your social network can dramatically enhance personal relationships, work life, and even your global impact. Are you an Expansionist, a Broker, or a Convener? The answer

matters more than you think. . . . Yale professor Marissa King shows how anyone can build more meaningful and productive relationships based on insights from neuroscience, psychology, and network analytics. Conventional wisdom says it's the size of your network that matters, but social science research has proven there is more to it. King explains that the quality and structure of our relationships has the greatest impact on our personal and professional lives. As she shows, there are three basic types of networks, so readers can see the role they are already playing: Expansionist, Broker, or Convener. This network decoder enables readers to own their network style and modify it for better alignment with their life plans and values. High-quality connections in your social network strongly predict cognitive functioning, emotional resilience, and satisfaction at work. A well-structured network is likely to boost the quality of your ideas, as well as your pay. Beyond the office, social connections are the lifeblood of our health and happiness. The compiled results from dozens of previous studies found that our social relationships have an effect on our likelihood of dying prematurely—equivalent to obesity or smoking. Rich stories of Expansionists like Vernon Jordan, Brokers like Yo-Yo Ma, and Conveners like Anna Wintour, as well as personal experiences from King's own world of connections, inform this warm, engaging, revelatory investigation into some of the most consequential decisions we can make about the trajectory of our lives.

An exploration of why people all over the world love to engage in pain on purpose--from

dominatrices, religious ascetics, and ultramarathoners to ballerinas, icy ocean bathers, and sideshow performers Masochism is sexy, human, reviled, worshipped, and can be delightfully bizarre. Deliberate and consensual pain has been with us for millennia, encompassing everyone from Black Plague flagellants to ballerinas dancing on broken bones to competitive eaters choking down hot peppers while they cry. Masochism is a part of us. It lives inside workaholics, tattoo enthusiasts, and all manner of garden variety pain-seekers. At its core, masochism is about feeling bad, then better—a phenomenon that is long overdue for a heartfelt and hilarious investigation. And Leigh Cowart would know: they are not just a researcher and science writer—they're an inveterate, high-sensation seeking masochist. And they have a few questions: Why do people engage in masochism? What are the benefits and the costs? And what does masochism have to say about the human experience? By participating in many of these activities themselves, and through conversations with psychologists, fellow scientists, and people who seek pain for pleasure, Cowart unveils how our minds and bodies find meaning and relief in pain—a quirk in our programming that drives discipline and innovation even as it threatens to swallow us whole.

Shortlisted for the 2021 Booker Prize Longlisted for the 2021 National Book Award for Fiction A heartrending new novel from the Pulitzer Prize–winning and #1 New York Times best-selling author of The Overstory. Named one of the Most Anticipated Books of 2021 by Newsweek, Los Angeles Times, New York Magazine, Chicago Tribune,

BuzzFeed, BookPage, Goodreads, Literary Hub, The Millions, New Statesman, and Times of London The astrobiologist Theo Byrne searches for life throughout the cosmos while single-handedly raising his unusual nine-year-old, Robin, following the death of his wife. Robin is a warm, kind boy who spends hours painting elaborate pictures of endangered animals. He's also about to be expelled from third grade for smashing his friend in the face. As his son grows more troubled, Theo hopes to keep him off psychoactive drugs. He learns of an experimental neurofeedback treatment to bolster Robin's emotional control, one that involves training the boy on the recorded patterns of his mother's brain… With its soaring descriptions of the natural world, its tantalizing vision of life beyond, and its account of a father and son's ferocious love, Bewilderment marks Richard Powers's most intimate and moving novel. At its heart lies the question: How can we tell our children the truth about this beautiful, imperiled planet?