



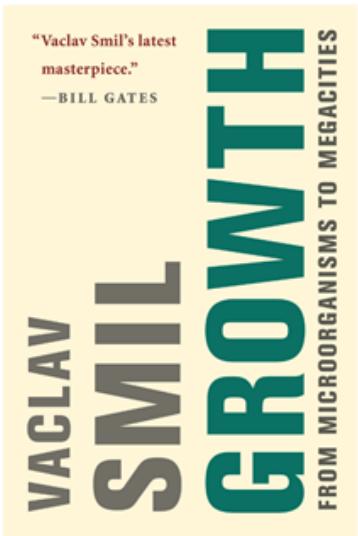
The background of the image is a vibrant, abstract painting. The upper portion features a bright yellow sky filled with wispy, blue and green clouds. Below this, a dense field of stylized plants and flowers in shades of green, orange, purple, and blue stretches across the frame. The brushwork is visible and expressive, creating a sense of movement and light.

The MIT Press
London Book Fair 2020
Rights Guide



The MIT Press

Featured Current Bestseller:



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GROWTH

From Microorganisms to Megacities

Vaclav Smil (author of *Energy and Civilization: A History*)

"Vaclav Smil's latest masterpiece." — **Bill Gates**

Vaclav Smil does for the history of energy what Thomas Piketty did for the history of inequality. And his findings are just as uncomfortable." — **Rutger Bregman** (author of *Utopia for Realists* and *Humankind*)

"Perhaps the world's foremost thinker on energy of all kinds." — **Science**

"Monumental." — **The New Yorker**

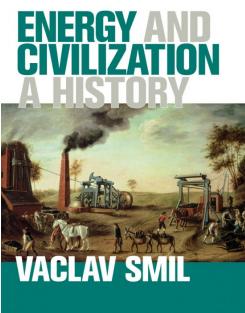
A magisterial investigation of growth in nature and society, from tiny organisms to the trajectories of empires and civilizations by Bill Gates' favorite scientist and the bestselling author of *Energy and Civilization: A History*.

Growth has been both an unspoken and an explicit aim of our individual and collective striving. It governs the lives of microorganisms and galaxies; it shapes the capabilities of our extraordinarily large brains and the fortunes of our economies. Growth is manifested in annual increments of continental crust, a rising gross domestic product, a child's growth chart, the spread of cancerous cells. In this magisterial book, Vaclav Smil offers systematic investigation of growth in nature and society, from tiny organisms to the trajectories of empires and civilizations.

Smil takes readers from bacterial invasions through animal metabolisms to megacities and the global economy. He looks at growth in complex systems, beginning with the growth of human populations and proceeding to the growth of cities. He considers the challenges of tracing the growth of empires and civilizations, explaining that we can chart the growth of organisms across individual and evolutionary time, but that the progress of societies and economies, not so linear, encompasses both decline and renewal.

Also by this Author

"I wait for new Smil books the way some people wait for the next Star Wars movie."
—Bill Gates, *Galaxy Notes* (2017 Best Books List)



ENERGY AND CIVILIZATION

A History

Vaclav Smil

A comprehensive account of how energy has shaped society throughout history, from pre-agricultural foraging societies through today's fossil fuel-driven civilization.

A wise, compassionate, and valuable book.

—**Foreign Affairs**



The MIT Press



THE CURIE SOCIETY

Heather Einhorn and Adam Staffaroni

COMING SPRING 2021

A Young Adult original graphic novel (OGN) about a secret society of young women chosen for their unique super powers of scientific reasoning.

The fictional story of an international secret society begun by Marie Curie that enlists young would-be female scientists to use their inherent STEM skills in covert operations to protect the world.

The OGN was created by the creative team of Heather Einhorn and Adam Staffaroni of Einhorn's Epic Productions (EEP).

The basis for a major television series currently in production!

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The first action-adventure graphic novel from MIT Press. The Curie Society follows a team of college students who are inducted into the Curie Society, an elite secret society founded to support the most brilliant female scientific minds in the world. With smarts, toughness, and cutting-edge tech, these women protect the mission of the Society and the cause of scientific knowledge across the globe. The intent of the book is to encourage young women's interest in STEM fields through a relatable action/adventure story. This first installment of what is intended to be a series is focused on Edmonds University physics professor and CS leader Dr. Jolene Burkhardt, her new CS recruits and freshmen Simone, Taj, and Maya, and their group leader Emma on a mission to prevent a rogue underground group (led by former CS leader Xiomena Olvera) from selling stolen CS-created de-extinction biotech IP to a corrupt VC firm.





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THE BEAUTY OF CHEMISTRY: Art, Wonder, and Science

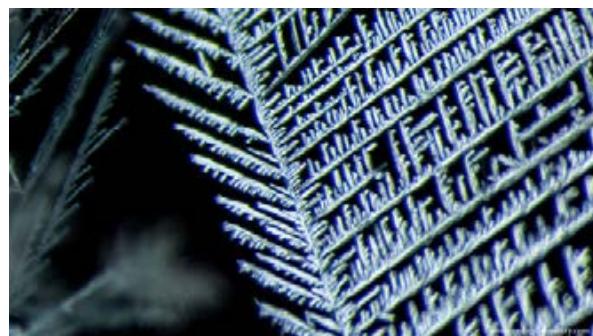
Philip Ball, Yan Liang, and Wenting Zhu

256 pages; 300 illus.; JANUARY 2021

This glorious book combines evocative and illuminating text from award-winning science writer Philip Ball to highlight the imagery from the landmark online exhibition *Envisioning Chemistry* by Yan Liang, Wenting Zhu and the team behind the educational brand *Beauty of Science*. Combining a visual spectacular and Ball's words which bring chemistry alive for the reader, the book will challenge the common perception of chemistry as a mundane and messy science, showing instead it is filled with wonder. Through words and images the reader will discover how chemistry underpins the formation of snowflakes, the patterns of animal markings, the science of champagne, the colors of flowers, and much more. *The Beauty of Chemistry* is a book that will appeal equally to the practicing chemist (or scientist of any persuasion) and the curious lay reader.

Philip Ball's writing has been a finalist for the Samuel Johnson Prize for nonfiction and the National Book Critics Circle award. He has won the Aventis Science Books award (for *Critical Mass*), the American Chemical Society's James T. Grady-James H. Stack Award for Interpreting Chemistry for the Public, the British Society for the History of Science's Dingle Prize, and the Lagrange Prize.

Envisioning Chemistry was done in collaboration with the Chinese Chemical Society. Blending chemistry and art, the exhibition reveals the beauty of chemistry by using the techniques microphotography, time-lapse photography, and infrared thermal imaging to show chemical processes as they happen. The movies have been used in a variety of contexts, including displays and presentations at the opening ceremony of the International Year of the Periodic Table at UNESCO in January 2019.





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HANDPRINTS ON HUBBLE

AN ASTRONAUT'S STORY OF INVENTION

KATHRYN D. SULLIVAN

THE FIRST AMERICAN WOMAN TO WALK IN SPACE



"Accessible and fascinating....
Sullivan's fine volume shines a light on the nuts-and-bolts tasks that make extraordinary endeavors possible."
—PUBLISHERS WEEKLY
(STARRED REVIEW)

HANDPRINTS ON HUBBLE An Astronaut's Story of Invention

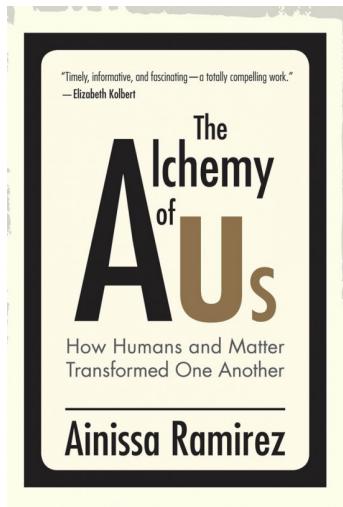
Kathryn D. Sullivan

248 pages; NOVEMBER 2019

Sullivan, the first American woman to walk in space, recounts how she and a team of astronauts, engineers, and scientists launched, rescued, repaired, and maintained the Hubble Space Telescope, the most productive space observatory ever built. Along the way, she chronicles her early life as a "Sputnik Baby," her initiation into the space program as one of "thirty-five new guys", and recounts the temporary grounding of the shuttle program after the Challenger disaster. For those of us who ever wondered what liftoff feels like inside a spacecraft, this is the firsthand account that will tell you.

"Shines a light on the nuts-and-bolts that make extraordinary endeavors possible."
— Publishers Weekly

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THE ALCHEMY OF US How Humans and Matter Transformed One Another

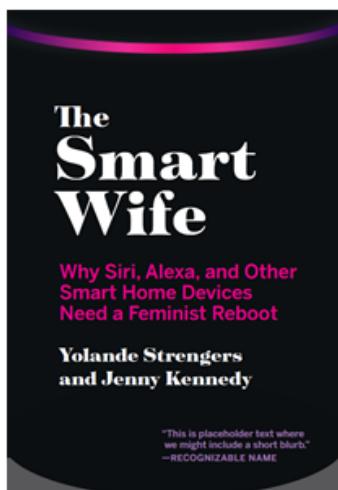
Ainissa Ramirez

300 pages; APRIL 2020

"Timely, informative, and fascinating—a totally compelling work." — Elizabeth Kolbert, Pulitzer Prize-winning author of *The Sixth Extinction*

In the bestselling tradition of *Stuff Matters*, an engaging look at materials, the innovations they made possible, their creators, and how these technologies changed us. Filling in the gaps left by other books about technology, Ramirez showcases little-known inventors—particularly people of color and women—who had a significant impact but whose accomplishments have been hidden by mythmaking, bias, and convention. Doing so, she shows us the power of telling inclusive stories about technology. She also shows that innovation is universal—whether it's splicing beats with two turntables and a microphone or splicing genes with two test tubes and CRISPR.

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THE SMART WIFE Why Siri, Alexa, and Other Smart Home Devices Need a Feminist Reboot

Yolande Strengers & Jenny Kennedy

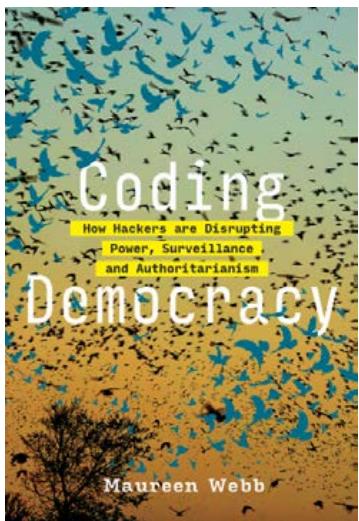
300 pages; SEPTEMBER 2020

The Smart Wife examines the emergence of digital home devices—and the "wifework" they engage in. She might go by the name Siri, or Alexa, or inhabit Google Home. She can keep us company, order groceries, vacuum the floor, turn out the lights. A Japanese digital voice assistant—a virtual anime hologram named Hikari Azuma—sends her master messages during the day; an American sexbot named Roxxy takes on other kinds of household chores. The authors show that the principal prototype for these virtual helpers—designed by the male-dominated tech industry—is the pre-feminist 1950s housewife: white, middle class, heteronormative, and nurturing. In other words, AI technology has taken us backwards rather than forwards when it comes to gender equity. Strengers and Kennedy offer a *Smart Wife* "manifesto," proposing a reboot that would promote a revaluing of femininity in society in all her glorious diversity.

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CODING DEMOCRACY How Hackers Are Disrupting Power, Surveillance, and Authoritarianism

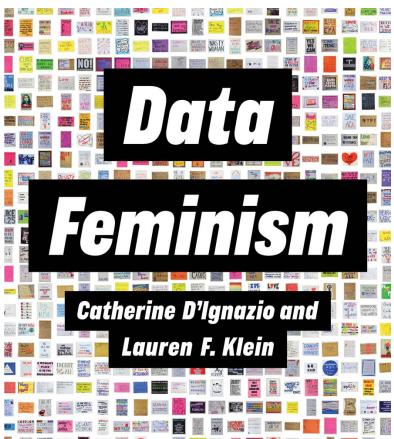
Maureen Webb

288 pages; APRIL 2020

"Builds a powerful case for the fact that technology as we know it—omnipresent, flawed, world-improving—has become so entrenched and static that it really does need the hackers worrying the edges of its firewalls." — *Wired*

Hackers have become vital disruptors, inspiring a new wave of activism where ordinary citizens displace tech monoliths like Facebook and Amazon; enable worker cooperatives to kill platforms like Uber; give people control over their data; and provide engaged citizens a real say in governance and a capacity to reach consensus. Drawing on interviews with hackers, lawyers, activists, and other actors from around the globe to explore the ways in which code and "hacking" are shaping our democracies and our futures, Webb argues hacking has the potential to extend democracy and disrupt the mass surveillance, consolidation of power, and authoritarianism that technology has enabled.

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DATA FEMINISM

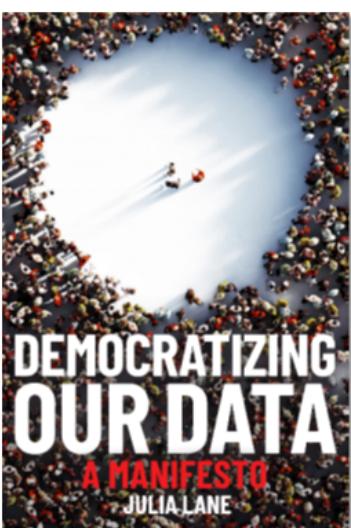
Catherine D'Ignazio (MIT) and Lauren F. Klein (Emory University)

360 pages; MARCH 2020

"Data Feminism reveals inequities and offers a way out of a broken system in which the numbers are allowed to lie." — *Wired*

Two young scholars uncover the startling truth of how *feminism* and *racism* have been perpetuated in the fields of data science and artificial intelligence through the long-established structural inequalities built into the hierarchical biases in the work of the male-dominated programming world. But just as "Feminism" makes a comeback, the book also explores how data feminism can successfully challenge these power imbalances inform AI & data science research to both disrupt this existing power imbalance and ultimately lead to a more equitable and informed world.

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DEMOCRATIZING OUR DATA A Manifesto

Julia Lane

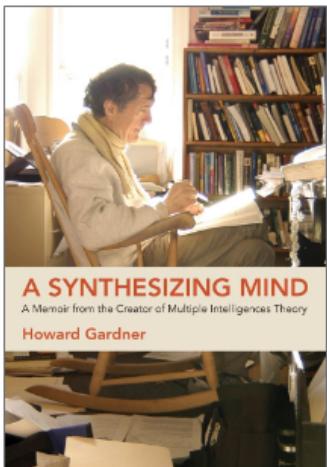
300 pages; SEPTEMBER 2020

In the new economy, wealth is generated by access to data; government's job is to democratize the data playing field. The private sector's data revolution—which creates new types of data and new measurements to build machine learning and artificial intelligence algorithms—can be mirrored by a public sector data revolution characterized by attention to counting all who should be counted, measuring what should be measured, and protecting privacy and confidentiality. Just as Google, Amazon, Microsoft, Apple, and Facebook have led the world in the use of data for profit, the United States can show the world how to produce data for the public good. Julia Lane argues that good data are essential for democracy arguing for a more automated, transparent, and accountable framework for creating high-quality public data that would empower citizens and inspire the workforce that serves them. The book offers a wake-up call for democratic governments to fix their broken public data system toward greater equality.

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A SYNTHESIZING MIND

A Memoir from the Creator of Multiple Intelligences Theory

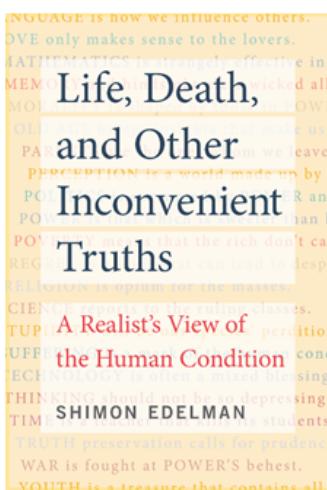
Howard Gardner

272 pages; SEPTEMBER 2020

The eminent Harvard professor, author of the groundbreaking bestseller *Frames of Mind*, and creator of the *multiple intelligences* theory reflects on his intellectual growth, his work, and the human mind—including his own.

Gardner's theory of multiples intelligences was a rare game changer - an academic theory with real world implications that debunked the primacy of the IQ test and inspired new approaches to psychology, education, parenting, and even business. In this memoir, he reflects on his intellectual development, tracing his evolution from bookish child to eager college student to disengaged graduate student to Harvard professor. Along the way, he discusses mentors (Erik Erikson; Jerome Bruner), collaborators (Mihaly Csikszentmihalyi, William Damon), even comedians (Groucho Marx). An engaging, wide-ranging intellectual reflection in the best memoir tradition.

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THE LIFE, DEATH, AND OTHER INCONVENIENT TRUTHS

A Realist's View of the Human Condition

Shimon Edelman (Cornell University)

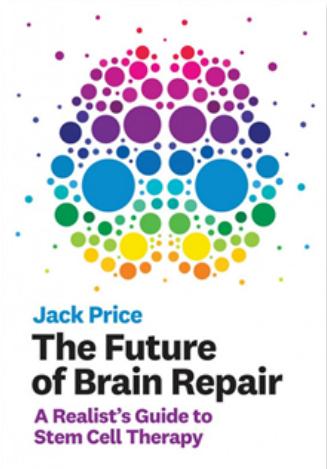
224 pages; OCTOBER 2020

A reference book for making sense of life—from action and thought, youth and aging, love and war.

A guide to human nature and human experience—a reference book for making sense of life. In thirty-eight short, interconnected essays, Shimon Edelman considers the parameters of the human condition, addressing them in alphabetical order, from action (good except when it's not) to love (only makes sense to the lovers) to thinking (should not be so depressing) to youth (a treasure). In a style that is by turns personal and philosophical, at once informative and entertaining, Edelman offers a series of illuminating takes on the most important aspects of living in the world.

Edelman was raised in the USSR and Israel. He is Professor of Psychology at Cornell University and the author of Computing the Mind, The Happiness of Pursuit, and other books. Greater Good called The Happiness of Pursuit: "An owner's manual for the mind ... and an entertaining one."

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THE FUTURE OF BRAIN REPAIR

A Realist's Guide to Stem Cell Therapy

Jack Price

240 pages; MARCH 2020

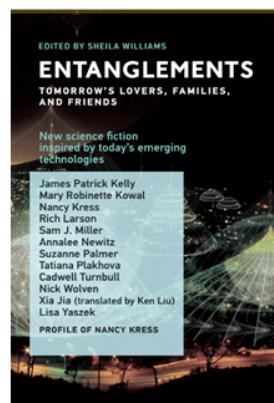
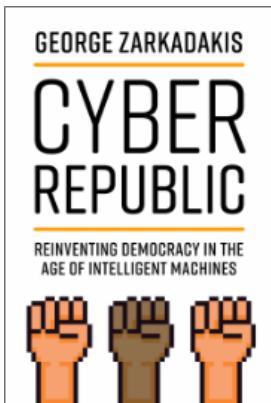
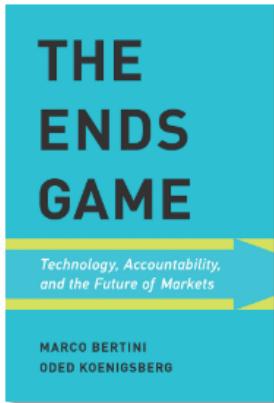
A scientist assesses the potential of stem cell therapies for treating such brain disorders as stroke, Alzheimer's disease, and Parkinson's disease.

The human brain is the most complex structure in the known universe—but our understanding of it is limited. Repairing brain tissue remains the ultimate biomedical challenge. Yet the major diseases of the aging brain—Stroke, Parkinson's, Alzheimer's—may soon be treatable with stem cell therapies and the first licensed stem cell therapies for brain disorders are about to gain regulatory approval. Are they the answer, will they fail, or will they soon be superseded by a new generation of superior therapies? Price, Professor of Developmental Neurobiology at King's College, provides an overview of the state of cell replacement technology, offering the context in which weigh the therapeutic promise of stem cell therapies against the limitations and continue to diagnosis failures and learn for the future.

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The MIT Press



THE ENDS GAME

Technology, Accountability, and the Future of Markets

Macro Bertini and Oded Koenigsberg

168 pages; AUGUST 2020

Would you rather pay for healthcare or for better health? For school or education? For groceries or nutrition? A car or transportation? A theater performance or entertainment? Bertini and Koenigsberg describe how some firms are rewriting the rules of commerce: instead of selling the "means" (their products and services), they adopt innovative revenue models to pursue "ends" (actual outcomes). They show that paying by the pill, semester, food item, vehicle, or show does not necessarily reflect the value that customers actually derive from their purchases. Revenue models anchored on the ownership of products, they argue, are patently inferior.

CYBER REPUBLIC

Reinventing Democracy in the Age of Intelligent Machines

George Zarkadakis

168 pages; AUGUST 2020

Around the world, liberal democracies are in crisis. Citizens have lost faith in their government; right-wing nationalist movements frame the political debate. At the same time, economic inequality is increasing dramatically; digital technologies have created a new class of super-rich entrepreneurs. Automation threatens to transform the free economy into a zero-sum game in which capital wins and labor loses. But is this digital dystopia inevitable? In Cyber Republic, George Zarkadakis presents an alternative, outlining a plan for using technology to make liberal democracies more inclusive and the digital economy more equitable. Cyber Republic is no less than a guide for the coming Fourth Industrial Revolution.

A NEW HISTORY OF THE FUTURE IN 100 OBJECTS: A Fiction

by Adrian Hon

168 pages; AUGUST 2020

A riveting imagined history looking back on the twenty-first century through one hundred of its artifacts, from silent messaging systems to artificial worlds on asteroids. In the year 2082, a curator looks back at the twenty-first century, offering a history of the era through a series of objects and artifacts. He reminisces about the power of connectivity, which was reinforced by such technologies as silent messaging—wearable computers that relay subvocal communication; recalls the Fourth Great Awakening, when a regimen of pills could make someone virtuous; and notes disapprovingly the use of locked interrogation, which delivers "enhanced interrogation" simulations via virtual reality. The unnamed curator quotes from a self-help guide to making friends with "posthumans," describes the establishment of artificial worlds on asteroids, and recounts pro-democracy movements in epistocratic states. In *A New History of the Future in 100 Objects*, Adrian Hon constructs a possible future by imagining the things it might leave in its wake.

ENTANGLEMENTS

Reinventing Democracy in the Age of Intelligent Machines

George Zarkadakis

256 pages 11 b&w photos; AUGUST 2020

In a future world dominated by the technological, people will still be entangled in relationships—in romances, friendships, and families. This volume in MIT's Twelve Tomorrows science fiction series considers the effects that scientific and technological discoveries will have on the emotional bonds that hold us together. The strange new worlds in these stories feature AI family therapy, floating fungitecture, and a futuristic love potion. A co-op of mothers attempts to raise a child together, lovers try to resolve their differences by employing a therapeutic sexbot, and a robot helps a woman dealing with Parkinson's disease. Contributions include Xia Jia's novelette set in a Buddhist monastery, translated by the Hugo Award-winning writer Ken Liu; a story by Nancy Kress, winner of six Hugos and two Nebulas; and a profile of Kress by Lisa Yaszek, Professor of Science Fiction Studies at Georgia Tech. Stunning artwork by Tatiana Plakhova—"infographic abstracts" of mixed media software—accompany the texts.



GUT FEELINGS: The Microbiome and Our Health

Alessio Fasano and Susie Flaherty / 400 pages; 9 illus.

MARCH 2021

Since van Leeuwenhoek invented the microscope and viewed his "wretched beasties" in a drop of rain water more than 350 years ago, the study of microorganisms has engendered more than one scientific revolution. But our recent ability to map the human genome, followed by the human microbiome project, has ushered in a technological revolution that promises to revolutionize medicine. Advances in understanding the microbiome and its role in human health dovetails with the development of personalized or "precision" medicine to create treatments and prevention programs targeted to the molecular imprint of an individual. By simultaneously expanding our perspective to encompass large data sets and multiple factors in human health, and narrowing our focus to identify the individual communities in the human microbiome, we will enlarge—and reinvent—our ability to combat disease and maintain health.

YEAR 1

Susan Buck-Morss / 456 pages; 63 illus.

DECEMBER 2020

Susan Buck-Morss's approach to the philosophy of history transcends disciplines to create a space at the intersections of religion, history, and law. We have passed through modernity and its failures (the dream of "progress," Hegelian and otherwise, is over) and postmodernity, and have finally reached a dead-end. With Year 1, Buck-Morss is attempting to establish a "pre-modernity" and a reformulation of "East" and "West" by putting aside the standard central figures (Tacitus, Seneca, and Saint Paul) in favor of others that have gotten short shrift (Flavius Josephus, Philo of Alexandria, and John of Patmos). In doing so, she establishes alternative traditions as the paths not taken and now needed, and establishes a more "communist" inheritance that repositions antiquity as something that intersects Christian, Jewish, secular, and Muslim knowledge as one body rather than separate slices of a worldly pie.

THE NEXT 500 YEARS: Engineering Life to Reach New Worlds

Christopher E. Mason / 312 pages

FEBRUARY 2021

Do we have the ability to colonize space? Do we have a moral obligation to continue our species, on this planet or the next? These are the existential questions that geneticist Chris Mason addresses in his scientifically-sound look 500 years into the future. Mason argues we will need all the technological, physical, pharmacological, and medical protective measures. But we can also, for the first time ever, deploy genetic measures of defense as well. To save life, we will need to engineer it. Evolution has only driven adaptation for life in the context of one temperate planet so far and it is likely that we, and all other organisms, will need extensive physical and genetic help to survive anywhere else. This book will take you through the first 500 years of this plan to colonize other worlds.

CRISPR PEOPLE: The Science and Ethics of Editing Humans

Henry T. Greely / 344 pages

JANUARY 2021

In 2018, Chinese scientist He Jiankui shocked the scientific world and sparked both headlines and controversy by announcing that he had used the DNA editing tool CRISPR to change the DNA of human embryos for two twin girls—who had already been born as the world's first "CRISPR Babies". The He Jiankui affair puts the many concerns about human germline genome editing – and many other forms of assisted reproduction as well as other human interventions we humans make in ourselves – into a concrete setting. Greely, a lawyer by training, unpacks the details of the Jiankui case and examines the broader laws, principles, and guidelines. All settings are different, but they provide the opportunity to see consequences and concerns evoked in the real world that might be missed in the solitude of a scholar's study or even in the busy hum of an engaged classroom. A fascinating, unnerving, and mysterious story.

COSMIC ODYSSEY: How Intrepid Astronomers at Palomar Observatory Changed our View of the Universe

Linda Schweizer / 312 pages; 100+ illus.

NOVEMBER 2020

From newborn galaxies to icy worlds and blazing quasars, a behind-the-scenes story of how Palomar Observatory astronomers unveiled our complex universe. Ever since 1936, pioneering scientists at CalTech's Palomar Observatory in Southern California have pushed against the boundaries of the known universe, making a series of dazzling discoveries that changed our view of the cosmos. Based on more than one hundred interviews and enhanced by research in scientific journals, her account paints a fascinating picture of how discrete insights acquired over decades by researchers in a global community cascade, collide, and finally coalesce into the discoveries we come to accept as facts.

THE MIND: Consciousness, Prediction, and the Brain

E. Bruce Goldstein / 264 pages; 34 illus.

SEPTEMBER 2020

Offering an accessible, engaging account of the mind and its connection to the brain, Goldstein takes as his starting point two central questions: What is the mind? What is consciousness? Drawing on the latest research and explaining its relevance, he then leads readers through topics that range from conceptions of the mind in popular culture to the wiring system of the brain. Throughout, Goldstein reveals the mind as a remarkable complex communication engine, less the simple firing of neurons in one specialized area and more connections that travel across what Goldstein calls the "highways of the mind."



THE ARCHITECTURE OF BATHING: Body, Landscape, Art

Christie Pearson / 300 pages; 115 color illus., 151 b & w illus.

SEPTEMBER 2020

A celebration of communal bathing—swimming pools, saunas, beaches, ritual baths, sweat lodges, and more—viewed through the lens of architecture and landscape. Pearson offers a unique examination of communal bathing and its history from the perspective of architecture and landscape. Each chapter is structured around an architectural typology and explores an accompanying theme—for example, tub, sensuality; river, flow; waterfall, rejuvenation; and banya, immersion. Offering examples, introducing relevant theory, and recounting personal experiences, Pearson effortlessly combines a practitioner's zest with astonishing erudition. Engagingly written and richly illustrated, *The Architecture of Bathing* offers a celebration of spaces in which public and private, sacred and profane, ritual and habitual, pure and impure, nature and culture commingle.

YOU ARE HERE: A Field Guide for Navigating Polluted Information

Whitney Phillips and Ryan M. Milner / 240 pages

MARCH 2021

Just as the natural world is besieged by the climate crisis, our digital world is besieged by the network crisis. Polluted information floods social media and our best efforts to help clean up can backfire, sending new toxins spilling across the landscape. *You Are Here* adopts ecological metaphors and the stories they inspire in an attempt to inspire change. Knowing where we stand in relation to so much else allows us to make more humane, more reflective, and more ethical choices online. Most important, it shows how our individual *me* is entwined within a much larger *we*—and how the fates of both are connected. We may not be able to change our environment overnight, but we can begin planting the seeds for a digital Green New Deal.

THE INFINITE PLAYGROUND

by Bernard De Koven 200 pages 1 b&w illus.

AUGUST 2020

De Koven (1941–2018) was a pioneering game designer long before the field of game studies existed. For De Koven, games could not be reduced to artifacts and rules; they were about a sense of transcendent fun. This book, his last, is about the imagination: the imagination as a playground, a possibility space, and a gateway to wonder. De Koven guides the readers through a series of observations and techniques, beginning with the fundamentals of play, and proceeding through both the private and shared imagination. Along the way, he reminisces about playing ping-pong with basketball great Bill Russell; offers instructions for a new game called *Reception Line*; and introduces blathering games—*Blather, Group Blather, Singing Blather*—that allow the player's consciousness to meander. De Koven extends a play-centered invitation that “the things we imagine can become the world.”

MAKE IT CLEAR: Speak and Write to Persuade and Inform

Patrick Henry Winston 352 pages 145 illustrations, 45 b&w

OCTOBER 2020

Put simply, *Make It Clear* explains how to communicate—how to speak and write to get your ideas across. Written by the esteemed late MIT professor who taught his students these techniques for more than forty years, the book starts with the basics—finding your voice, organizing your ideas, making sure what you say is remembered, and receiving critiques. Winston covers such specifics as writing and rewriting, preparing slides, and even choosing a type family. He explains why you should start with an empowerment promise and conclude by noting you delivered on that promise. It describes how a well-crafted, explicitly identified slogan, symbol, salient idea, surprise, and story combine to make you and your work memorable. Effective communication can be life-changing—making use of just one principle in this book can get you the job, make the sale, convince your boss, inspire a student, or even start a revolution. Learning how to speak and write well will empower you and make you smarter.

DRIVERLESS AT LAST: Cars, Artificial Intelligence and You

Hod Lipson and Melba Kurman 216 pages 10 illustrations

JULY 2020

The mundane car is about to become the ultimate mobility device from the authors of the bestselling *Driverless*. Thanks to rapid advances in robotics and artificial intelligence, cars are poised to morph into the first mainstream autonomous robots that we will entrust with our lives, creating a cascade of social and economic change. The book explains how autonomous cars work, how the technology will change our lives, our businesses, our cities, and the technological and social barriers that lie ahead.

AMBIENT PLAY

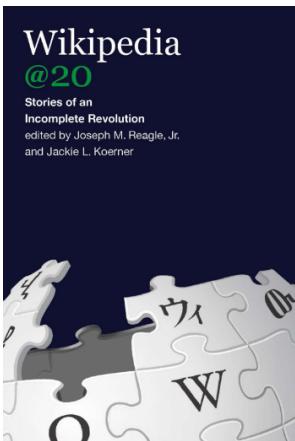
Larissa Hjorth and Ingrid Richardson 216 pages 20 b&w photos

AUGUST 2020

We often play games on our mobile devices when we have some time to kill—waiting in line, pausing between tasks, stuck on a bus. We play in solitude or in company, alone in a bedroom or with others in the family room. In *Ambient Play*, Larissa Hjorth and Ingrid Richardson examine how mobile gameplay fits into our day-to-day lives. They show that as mobile games spread across different genres, platforms, practices, and contexts, they become an important way of experiencing and navigating a digitally saturated world. Mobile games become conduits for what the authors call *ambient play*, more than a “casual” distraction but rather a complex cultural practice embedded into our contemporary ways of being, knowing, and communicating.



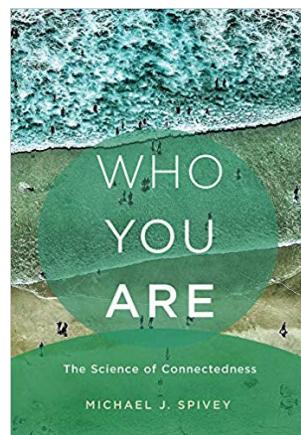
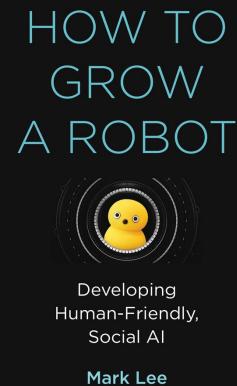
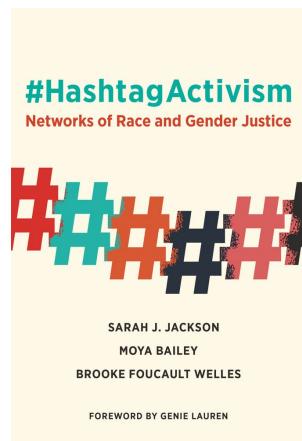
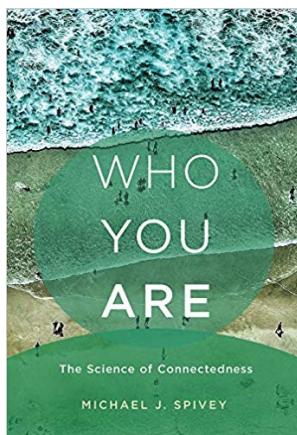
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WIKIPEDIA @ 20

Stories of an Incomplete Revolution

edited by Joseph M. Reagle, Jr. and Jackie L. Koerner



360 pages; OCTOBER 2020

Wikipedia's first twenty years: how what began as an experiment in open source collaboration became the world's most popular reference work. Scholars, activists, and volunteers reflect and reveal connections across disciplines and borders, languages and data, the professional and personal. The contributors consider Wikipedia's history, the richness of the connections that underpin it, and its founding vision. Their essays look at, among other things, the shift from bewilderment to respect in press coverage of Wikipedia; Wikipedia as "the most important laboratory for social scientific and computing research in history"; and the acknowledgment that "free access" includes not just access to the material but freedom to contribute—that the summation of all human knowledge is biased by who documents it.

#HASHTAG ACTIVISM

Networks of Race and Gender Justice

Sarah J. Jackson, Moya Bailey, and Brooke Foucault Welles

264 pages; MARCH 2020

The beginning of the 21st century brought forth a number of social media platforms that have allowed activists to increase their audience exponentially and with relative ease. From hashtags such as #BlackLivesMatter, #MeToo to the Arab Spring and the Occupy movements, digital social activism mobilized people like never before. Using an innovative interdisciplinary research approach that combines big data analytics with critical/cultural analysis, the authors examine how and why Twitter hashtags have become an important platform for historically disenfranchised populations to advance counter narratives and advocate for social change. Given shifting understandings about the role of social media in 21st century democracy, and considering recent high-profile public debates about racial violence, feminist inclusivity, and sexual identity, the book shows how to study political identity within the digital space of counterpublic activism and dissent.

HOW TO GROW A ROBOT: Developing Human-Friendly, Social AI

Mark Lee (Aberystwyth University, Wales) / 350 pages

MAY 2020

"Friendliness" doesn't come to mind when we think of robots. They vacuum, deliver packages, dispose of bombs, even perform surgery—but they aren't good conversationalists. For the future to promise more human-robot collaboration in both work and play, robots need to be less bot and more chat—and the current gains in AI, machine learning and deep learning alone will not yet get us there. A roboticist explores how they could become more human-like, introducing us to the core ideas in *developmental robotics*, and how this new approach based on developmental psychology can "grow" robots through their own experience rather than through design. A clear, accessible examination of the coming age of robots encouraging the general reader to build their own informed assessment of these technologies.

WHO YOU ARE

The Science of Connectedness

Michael J. Spivey, Professor of Cognitive Science (University of California)

384 pages; MAY 2020

Who are you? A brain? A body? Something much deeper, an inner sanctuary that contains our true selves? Or is the opposite true, your true self more outward-facing? We've all felt at times that something outside ourselves is a part of us—a child, a place, a favorite book or song. Spivey confirms this intuition through science, expanding chapter-by-chapter an outward definition of the self. He draws on cognitive and neuroscience, the back-and-forthing in the regions of the brain, the interaction between the brain and body. He makes the case for understanding objects in our environment as additional parts of who we are. Finally, he shows that, just as interaction links brain, body, and environment, ever-expanding systems of interaction link humans to other humans, to nonhuman animals, and to nonliving matter.

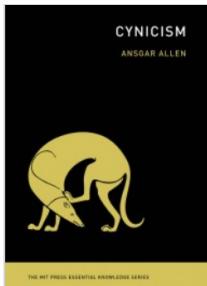


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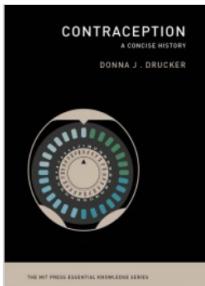
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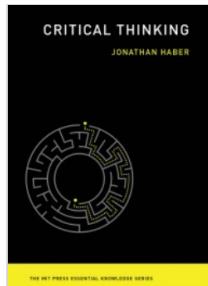
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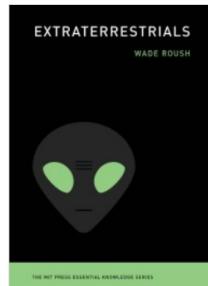
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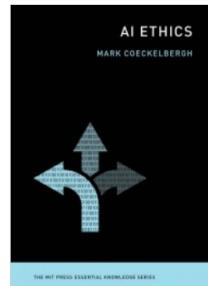
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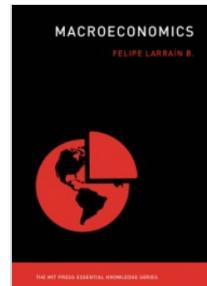
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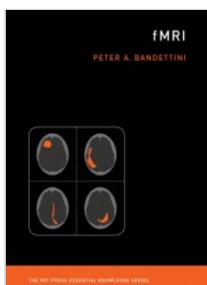
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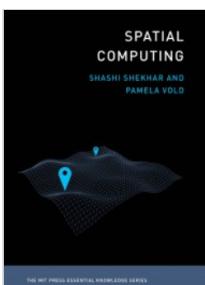
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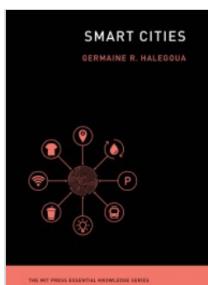
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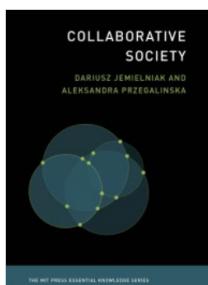
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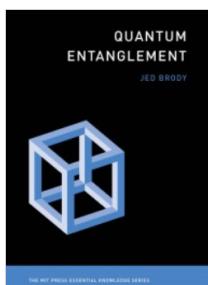
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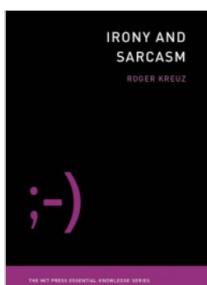
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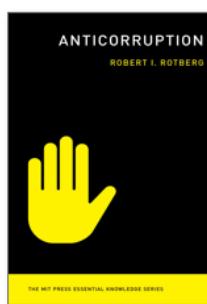
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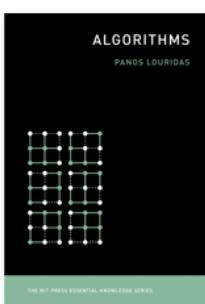
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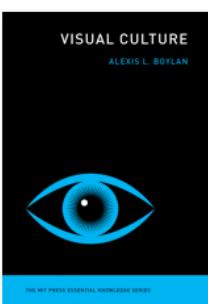
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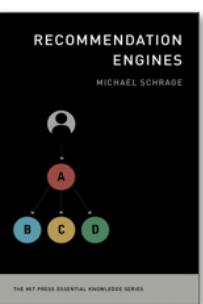
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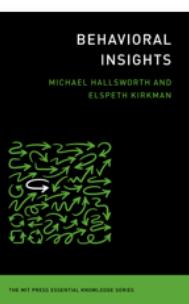
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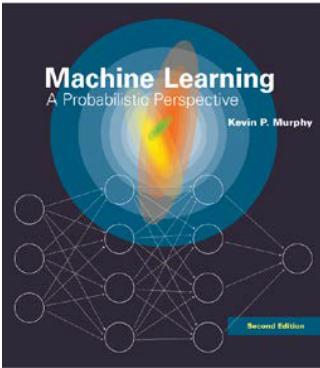
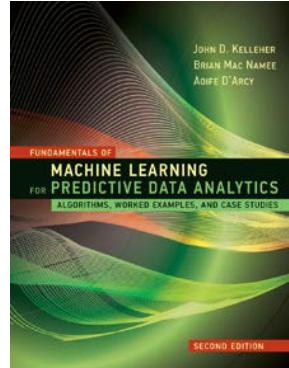
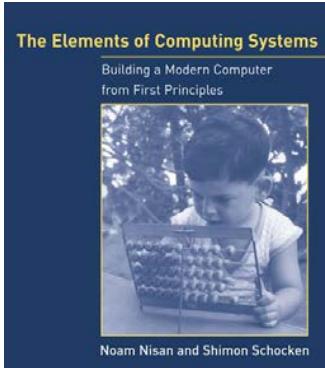
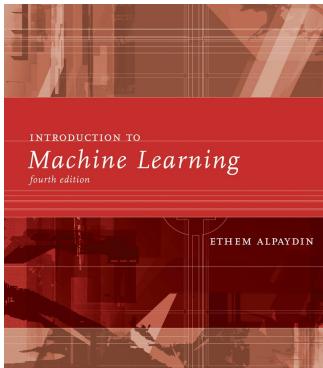
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NEW & REVISED TEXTBOOKS



INTRODUCTION TO MACHINE LEARNING - Fourth Edition

Ethem Alpaydin

700 pages; JANUARY 2020

The first edition of this pioneering work in the field was published in 2004. For the new edition, the author has added a new chapter on deep learning including training deep neural networks as well as sections on generative adversarial networks and the policy gradient method and extended the chapter on reinforcement learning to discuss the use of deep networks. He has revised chapters reflecting new approaches and includes two new appendices on linear algebra and optimization have also been added.

THE ELEMENTS OF COMPUTING SYSTEMS - Second Edition

Noam Nisan & Shimon Schocken

320 pages; NOVEMBER 2020

The best way to understand how computers work is to build one from scratch, and this extensively revised edition of the classic textbook leads learners through twelve chapters that gradually build the hardware platform and software hierarchy for a simple but powerful computer system. Known as *Nand to Tetris*—a journey that starts with the most elementary logic gate, (*Nand*) and ends, twelve projects later, with a general-purpose computer system capable of running a program (*Tetris*). In the process, learners gain hands-on knowledge of hardware, architecture, operating systems, programming languages, compilers, data structures and algorithms, and software engineering through the use of this practical approach. The first edition inspired *Nand to Tetris* classes in universities, coding boot camps, hacker clubs, and online course platforms. This second edition has been fully revised and restructured, all chapters and projects rewritten with an emphasis on separating abstraction from implementation, and many new sections, figures, and examples added.

FUNDAMENTALS OF MACHINE LEARNING for Predictive Data Analytics - Second Edition

Algorithms, Worked Examples, and Case Studies

John D. Kelleher, Brian Mac Namee, and Aoife D'Arcy

800 pages; OCTOBER 2020

The best way to understand how computers work is to build one from scratch, and this extensively revised edition of the classic textbook leads learners through twelve chapters that gradually build the hardware platform and software hierarchy for a simple but powerful computer system. Known as *Nand to Tetris*—a journey that starts with the most elementary logic gate, (*Nand*) and ends, twelve projects later, with a general-purpose computer system capable of running a program (*Tetris*). In the process, learners gain hands-on knowledge of hardware, architecture, operating systems, programming languages, compilers, data structures and algorithms, and software engineering through the use of this practical approach. The first edition inspired *Nand to Tetris* classes in universities, coding boot camps, hacker clubs, and online course platforms. This second edition has been fully revised and restructured, all chapters and projects rewritten with an emphasis on separating abstraction from implementation, and many new sections, figures, and examples added.

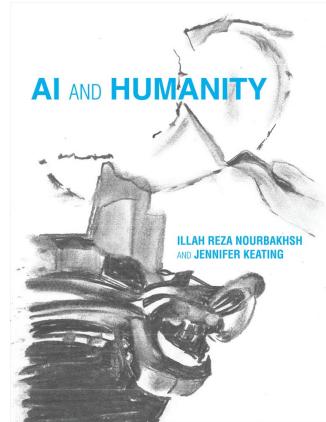
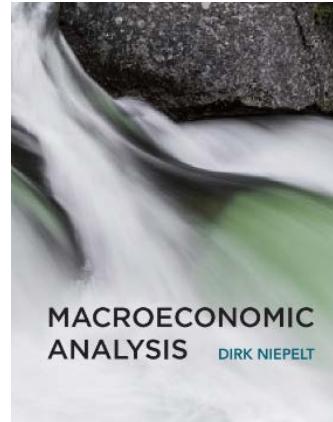
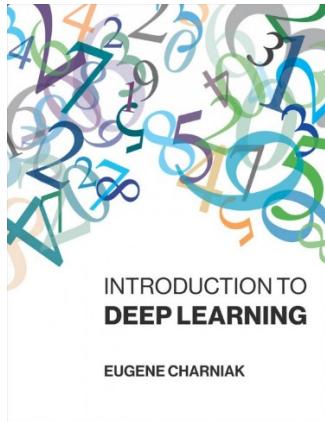
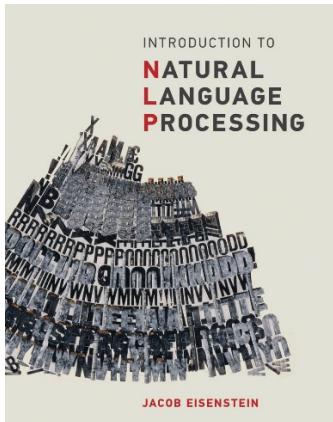
MACHINE LEARNING: A Probabilistic Perspective - Second Edition

Kevin P. Murphy

1200 pages; NOVEMBER 2020

The second edition of this comprehensive and self-contained introduction to the field of machine learning has been substantially expanded and revised, incorporating many recent developments in the field (including deep learning). It has new chapters on linear algebra, optimization, implicit generative models, reinforcement learning, and causality; and other chapters on such topics as variational inference and graphical models have been significantly updated. Part 1, on mathematical foundations, covers such topics as probability, statistics, and linear algebra; Part 2, on algorithmic methods, covers such topics as optimization, variational inference, and Monte Carlo sampling; and Part 3, on models, covers such topics as linear models, neural networks, and graphical models. Suitable for graduate and upper-level undergraduate.

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Eugene Charniak (Brown University)

192 pages; JANUARY 2019

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Dirk Niepelt (University of Bern)

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Illah Reza Nourbakhsh (The Robotics Institute, Carnegie Mellon University)

160 pages; FEBRUARY 2020

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