

how we got to now six innovations that made the modern world steven johnson

****How We Got to Now: Six Innovations That Made the Modern World by Steven Johnson****

how we got to now six innovations that made the modern world steven johnson is more than just a book title—it's an invitation to explore the fascinating journey of human ingenuity that has shaped our contemporary lives. Steven Johnson masterfully unpacks the stories behind six groundbreaking innovations that, while often taken for granted today, revolutionized the way we live, work, and interact. By understanding these pivotal developments, we gain insight into the interconnectedness of ideas and the ripple effects of invention throughout history.

In this article, we'll dive into the essence of Johnson's work, exploring the six key innovations highlighted in **How We Got to Now**. We'll unravel how these advancements emerged, their unexpected consequences, and why they remain relevant in our fast-paced, technology-driven world. Along the way, we'll touch on related concepts such as technological evolution, innovation networks, and the broader impact of scientific discovery.

The Essence of How We Got to Now: Six Innovations That Made the Modern World Steven Johnson Explores

Steven Johnson's **How We Got to Now** takes a unique approach to understanding innovation. Rather than focusing solely on famous inventors or singular moments, Johnson emphasizes the complex web of ideas and collaborations that lead to groundbreaking changes. The six innovations he centers on serve as case studies for this broader narrative.

By examining these innovations, Johnson highlights:

- The unexpected connections between different fields of knowledge.
- How small, incremental improvements can culminate in revolutionary change.
- The unintended consequences—both positive and negative—that arise from innovation.

Understanding these themes helps us appreciate the depth and complexity behind what often seems like simple everyday technology.

The Six Innovations That Shaped the Modern World

1. Glass: The Window to New Perspectives

Glass might seem mundane today, but Johnson reveals how it transformed human perception and knowledge. From the humble eyeglasses that enhanced vision to the microscopes that unveiled the microscopic world, glass has been central to scientific discovery.

The Power of Vision Enhancement

The development of lenses allowed people to see beyond natural limitations. This breakthrough led to:

- The invention of the telescope, expanding our understanding of the universe.
- The microscope, opening up the world of cells and germs, which revolutionized medicine.
- Cameras and smartphones, changing how we capture and share reality.

Johnson shows how glass is not just a material but a gateway to expanding human capacity.

2. Refrigeration: Changing How We Preserve Life

Before refrigeration, food spoilage was a major challenge, limiting diet and travel. Johnson tracks how advances in refrigeration technology have enabled:

- Longer food storage, reducing waste and improving nutrition.
- The global food trade, connecting distant cultures and economies.
- Medical breakthroughs by preserving vaccines and organs.

Refrigeration exemplifies how a technical innovation can ripple through society, affecting health, culture, and economics.

3. Sound Recording: Capturing Moments in Time

The ability to record sound transformed communication and entertainment. Johnson explores how the phonograph and later innovations led to:

- The music industry as we know it.
- The preservation of language and oral history.
- New forms of media and communication, such as podcasts and audiobooks.

This innovation highlights how capturing intangible experiences reshapes culture.

4. Clean Water: Foundations of Public Health

Access to clean water is fundamental but was once a massive public health challenge. Johnson details how innovations in water purification and sanitation drastically reduced disease and increased life expectancy.

Public Health and Urbanization

As cities grew, managing water quality became critical. Innovations included:

- Chlorination of water supplies.

- Sewage treatment systems.
- Infrastructure for widespread clean water access.

These developments underscore the importance of innovation in societal well-being and urban development.

5. Clocks: Organizing Time and Society

Clocks are more than timekeepers; Johnson demonstrates how they helped organize labor, travel, and social life. Precise timekeeping facilitated:

- The synchronization of trains and transportation networks.
- The standardization of work hours during the Industrial Revolution.
- The development of global communication systems.

The evolution of the clock reflects how an abstract concept like time became embedded in social and economic structures.

6. Light Bulb: Illuminating the Modern World

The invention of electric light revolutionized daily life by extending productive hours and improving safety. Johnson traces how electric lighting led to:

- Urban nightlife and increased economic activity.
- Innovations in electrical engineering and power grids.
- Environmental impacts and the push for sustainable lighting solutions.

The light bulb symbolizes the transformative power of energy innovations.

Interconnected Innovation: The Hidden Networks Behind Progress

One of the most compelling aspects of **How We Got to Now** is Johnson's emphasis on the “slow hunch” and the collaborative nature of invention. Rarely does an innovation emerge in isolation. Instead, it often results from:

- Cross-disciplinary fertilization of ideas.
- Incremental improvements by countless contributors.
- Serendipitous connections between unrelated fields.

For example, the development of the microscope relied on advances in glassmaking, which in turn benefited from knowledge in chemistry and physics. This network of innovation challenges the myth of the solitary genius and highlights the importance of community and knowledge sharing.

Why Steven Johnson's Perspective Matters Today

In a world obsessed with disruptive innovation and rapid tech breakthroughs, Johnson's retrospective approach provides balance. Recognizing that innovation is often a gradual, collective process encourages patience and persistence. It also reminds us to consider the broader consequences of new technologies.

Moreover, Johnson's work offers valuable lessons for today's innovators:

- **Look for connections:** Breakthroughs often happen at the intersection of disciplines.
- **Embrace incremental progress:** Small changes can lead to dramatic shifts over time.
- **Be mindful of unintended effects:** Innovations can have both positive and negative impacts.

This mindset is crucial in fields like sustainable technology, public health, and digital innovation.

Exploring How We Got to Now Through Modern Lenses

The six innovations Johnson highlights continue to evolve and influence contemporary developments. For instance:

- **Glass** is central to modern smartphones and augmented reality devices.
- **Refrigeration** is linked to cold chain logistics critical for vaccine distribution.
- **Sound recording** powers artificial intelligence voice assistants.
- **Clean water** innovations are vital for addressing global water scarcity.
- **Clocks** underpin GPS systems essential for navigation and communication.
- **Light bulbs** have given way to energy-efficient LEDs, reflecting environmental concerns.

By tracing these innovations' origins and trajectories, Johnson offers a framework for understanding how past innovations inform present and future technologies.

Exploring *'How We Got to Now'* six innovations that made the modern world Steven Johnson invites us to appreciate the deep roots of modern technology. It shows that every device, system, or practice we rely on today is part of a vast, interconnected story of human curiosity and creativity. By learning from these stories, we can better navigate the challenges and opportunities of our rapidly changing world.

Frequently Asked Questions

What is the main theme of 'How We Got to Now' by Steven Johnson?

The main theme of 'How We Got to Now' is exploring six key innovations that have significantly shaped the modern world and how these innovations are interconnected through history.

Which six innovations are highlighted in Steven Johnson's 'How We Got to Now'?

The six innovations highlighted are glass, cold, sound, clean, time, and light.

How does Steven Johnson explain the impact of the innovation 'glass' in the book?

Steven Johnson explains that glass revolutionized science, communication, and technology by enabling inventions like microscopes, telescopes, and screens, thereby expanding human perception.

Why is the innovation 'cold' important according to 'How We Got to Now'?

The innovation 'cold' is important because refrigeration and air conditioning transformed food preservation, medicine, and living conditions, impacting health and global trade.

In what way does 'How We Got to Now' connect the innovation of 'sound' to modern technology?

The book connects 'sound' innovation to the development of technologies like the phonograph, telephone, and ultrasound, which have transformed communication and medical diagnostics.

What role does the innovation 'clean' play in Steven Johnson's narrative?

'Clean' refers to sanitation and hygiene innovations, such as sewage systems and antibiotics, that drastically reduced disease and increased life expectancy.

How does 'How We Got to Now' illustrate the significance of 'time' as an innovation?

The book illustrates 'time' as an innovation through the development of accurate clocks and timekeeping, which enabled global navigation, coordination, and the synchronization of modern life.

Additional Resources

****How We Got to Now: Six Innovations That Made the Modern World by Steven Johnson****

how we got to now six innovations that made the modern world steven johnson explores the fascinating and often unexpected pathways through which pivotal inventions have shaped contemporary society. Steven Johnson's investigative approach sheds light on the interconnected nature of innovation, revealing how breakthroughs in technology, communication, and infrastructure have collectively forged the foundations of the modern world. Through a detailed examination of six key innovations, Johnson not only narrates the history behind these advancements but also illustrates their profound and lasting impact on daily life, industry, and culture.

Unpacking the Framework of Innovation in “How We Got to Now”

Steven Johnson’s work stands out for its ability to trace the lineage of ideas, connecting seemingly unrelated discoveries to demonstrate how innovation is rarely a linear process. “How We Got to Now: Six Innovations That Made the Modern World” is a compelling narrative that delves into the stories behind six transformative technologies: glass, cold, sound, clean, time, and light. Each of these innovations serves as a lens through which Johnson examines the ripple effects that extend far beyond their original context.

The book and its accompanying documentary series emphasize the complexity and serendipity embedded in technological evolution. Johnson’s investigative style reveals that modern conveniences such as smartphones, refrigeration, and accurate timekeeping have roots in centuries-old discoveries and incremental improvements. By exploring these six innovations, readers gain insight into how innovation thrives on collaboration, unexpected consequences, and the cumulative efforts of countless contributors.

The Innovation of Glass: From Ancient Craft to Digital Age

Glass, as an innovation, is often overlooked despite its ubiquitous presence in modern life. Johnson traces its origins back thousands of years to early civilizations that first learned to manipulate silica. The development of glass laid the groundwork for critical advancements in optics, microscopy, and eventually, digital screens.

One of the most profound impacts of the glass innovation is its role in enabling the scientific revolution. The invention of the microscope and telescope expanded human understanding of the natural world, allowing discoveries that redefined biology and astronomy. In modern times, glass technology has evolved into the backbone of the digital era. Smartphones, tablets, and computers depend on advanced glass manufacturing to deliver high-resolution displays.

Glass also illustrates the unintended consequences of innovation. For example, the production of glass required significant heat and energy, spurring developments in furnace design and metallurgy. This interconnected advancement exemplifies Johnson’s thesis on the web of innovation.

Cold: Refrigeration and the Transformation of Food and Medicine

The concept of cold, particularly refrigeration, revolutionized food storage and medical preservation. Johnson highlights how the mastery of controlling temperature transformed societies by extending the shelf life of perishable goods and enabling long-distance food transport networks.

Refrigeration technology emerged through centuries of experimentation, from ice harvesting to mechanical refrigeration in the 19th century. This innovation not only improved public health by reducing foodborne illnesses but also reshaped global trade patterns. Foods previously limited to local consumption could now be shipped across continents, broadening diets and economic opportunities.

In medicine, the ability to store vaccines, blood, and organs at low temperatures became critical. Cold chain logistics remain an essential component of global healthcare infrastructure, underscoring the profound societal implications of this innovation.

Sound: The Revolution of Communication and Entertainment

Sound innovation encompasses the development of technologies that capture, reproduce, and transmit audio, fundamentally altering communication and culture. Johnson explores milestones from the invention of the phonograph to modern digital audio.

The phonograph, patented by Thomas Edison in 1877, marked the beginning of recorded sound, enabling mass entertainment and the preservation of oral histories. Subsequent innovations like radio broadcasting expanded the reach of information and entertainment, fostering shared cultural experiences on an unprecedented scale.

Modern sound technology has further evolved with digital compression and streaming, transforming how individuals access music, podcasts, and communication tools such as telephony and video conferencing. Johnson's analysis highlights how sound innovation intersects with social change, influencing political movements, education, and global connectivity.

Clean: Sanitation and the Public Health Revolution

The sanitation movement, often categorized under the umbrella of "clean," represents a crucial innovation in public health. Johnson traces the origins of modern sanitation to the 19th century, when urbanization and industrialization exposed the dire consequences of poor hygiene.

Innovations such as the development of sewage systems, water filtration, and chlorination drastically reduced the spread of infectious diseases like cholera and typhoid. These public health advances extended life expectancy and enabled the growth of densely populated cities.

Johnson's narrative underscores how "clean" innovations required not only technological breakthroughs but also shifts in public policy, social attitudes, and scientific understanding. The interplay between technology and societal acceptance remains a key theme in his analysis.

Time: Precision and Synchronization in the Modern Era

Timekeeping innovations have been fundamental to the organization of modern society. Johnson delves into how accurate measurement of time evolved from sundials to atomic clocks, enabling coordination in transportation, industry, and communication.

The advent of standardized time zones, driven by the demands of railway scheduling in the 19th century, exemplifies how time innovation supports complex logistical systems. Precision clocks underpin technologies such as GPS, financial trading, and the synchronization of digital networks.

Johnson highlights the cultural implications of time innovation, noting how societies have adapted

their rhythms and behaviors to the demands of increasingly precise timekeeping. The shift from natural time cycles to mechanical and atomic precision reflects broader transformations in human perception and social structure.

Light: Powering Progress and Extending Human Activity

The control and harnessing of light represent a landmark in human innovation. Johnson examines the trajectory from firelight and candles to electric illumination and laser technology.

Electric light extended productive and social activity beyond daylight hours, reshaping urban environments and work patterns. The development of the incandescent bulb by Thomas Edison and improvements in lighting efficiency have had profound economic and cultural impacts.

Light innovation also intersects with advancements in communication, such as fiber optic technology, which uses light to transmit data at incredible speeds. Johnson's exploration of light illuminates how this innovation is both a literal and metaphorical beacon of modern progress.

Interconnectedness and the Broader Impact of Innovation

One of the most compelling aspects of Steven Johnson's "how we got to now six innovations that made the modern world" is his emphasis on the interconnectedness of technological breakthroughs. Each innovation discussed does not exist in isolation but rather interacts with others, creating cascading effects that transform society in multifaceted ways.

For instance, the innovation of glass facilitated the development of clean technologies by enabling water filtration systems. Similarly, precise timekeeping underpins modern communication networks that rely on sound technology. The refrigeration innovation supports global food supply chains, which in turn depend on transportation systems coordinated by accurate time measurement.

Johnson's investigative narrative challenges the notion of solitary inventors or single moments of genius. Instead, it portrays innovation as a collective enterprise shaped by diverse contributors, chance discoveries, and the gradual accumulation of knowledge.

The six innovations highlighted in his work serve as archetypes for understanding the dynamics of technological progress. They demonstrate how fundamental shifts in materials, processes, and understanding can ripple through various sectors, altering economic models, social structures, and cultural norms.

In exploring these themes, Johnson's work remains a vital resource for those seeking to comprehend the complex landscape of innovation that defines the modern world. His methodical and analytical approach provides not only historical insight but also a framework for anticipating future technological transformations.

How We Got To Now Six Innovations That Made The Modern World Steven Johnson

how we got to now six innovations that made the modern world steven johnson: How We Got to Now Steven Johnson, 2014-10-16 From Steven Johnson, the bestselling author of *Where Good Ideas Come From*, comes *How We Got to Now*, the companion book to his six-part BBC One television series exploring the power and the legacy of great ideas. How did photography bring about social reform? What connects refrigeration to Hollywood? And how did our battle against dirt help create smartphones? In this story of ingenious breakthroughs and unsung heroes, Steven Johnson explores the essential innovations that changed the world and how we live in it. 'A new Steven Johnson book is something not to be missed. The author has become the leading writer on how inventions happen' Daniel Finkelstein, *The Times*, Books of the Year 'Graceful and compelling ... you'll find yourself exhilarated' *The New York Times Book Review* 'Readable, entertaining, and a challenge to any jaded sensibility that has become inured to the everyday miracles all around us' Peter Forbes, *Guardian* 'This nimble history of invention . . . is a many-layered delight' *Nature* Steven Johnson is the US bestselling author of *Where Good Ideas Come From*, *The Invention of Air*, *The Ghost Map*, and *Everything Bad Is Good for You*, and is the editor of the anthology *The Innovator's Cookbook*. He is the founder of a variety of influential websites - most recently, *outside.in* - and writes for *Time*, *Wired*, *The New York Times* and the *Wall Street Journal*.

how we got to now six innovations that made the modern world steven johnson: How We Got to Now Summary Station, 2014-11-20 Learn About The Modernization Of Our Planet In A Fraction Of The Time It Takes To Read The Actual Book!!! Today only, get this 1# Amazon bestseller for just \$2.99. Regularly priced at \$9.99. Read on your PC, Mac, smart phone, tablet or Kindle device In the introduction, author Steven Johnson shares some valuable knowledge about the journey ahead. While inventions are exciting, it is important to remember that the innovations in this book belong to everyday, normal life, not science fiction. Johnson details several groundbreaking yet simple inventions (air-conditioning, a glass of clean drinking water, etc.) that utterly changed our lives, and how these changes further inspired more ingenuity and occurrences that we may not even know are connected. Take for example the printing press. Do you know that Gutenberg's press led to our ability to view microscopic cells? That may not be a connection we easily make, but when we break down the timeline of inventions, it becomes quite clear. Gutenberg invented the printing press, which created a surge in demand for spectacles. Reading now enabled people to realize they had vision problems (farsightedness), so the growing need for spectacles urged people to experiment with lenses to help various eye types. This brought about the invention of the microscope, which of course, made us able to look at our cells and study them. Here Is A Preview Of What You'll Learn When You Download Your Copy Today* How Solving Small Problems Can Lead To Major Breakthroughs In Innovation * Why The Invention Of The Jack Screw Improved Health All Over The World* Learn About The Daily Struggles Of Our Ancestors Download Your Copy Today! The contents of this book are easily worth over \$9.99, but for a limited time you can download the summary of *How We Got To Now* for a special discounted price of only \$2.99

how we got to now six innovations that made the modern world steven johnson: How We Got to Now Steven Johnson, 2018-10 Innovation starts with a problem whose solution sets in motion all kinds of unexpected discoveries. That's why you can draw a line from pendulums to punching the clock at a factory, from ice blocks to summer movie blockbusters, from clean water to computer chips. In the lively storytelling style that has made him a popular, bestselling author, Steven Johnson looks at how accidental genius, brilliant mistakes, and unintended consequences shape the way we live in the modern world. Johnson's long zoom approach connects history, geography, politics, and scientific advances with the deep curiosity of inventors or quirky interests of tinkerers to show how innovation truly comes about. His fascinating account is organized into six topics- glass, cold, sound, clean, time, light. Johnson's fresh exploration of these simple, single-syllable word concepts creates

an endlessly absorbing story that moves from lightning strikes in the prehistoric desert to the herculean effort to literally raise up the city of Chicago to laser labs straight out of a sci-fi movie. In other words, it's the story of how we got to now!

how we got to now six innovations that made the modern world steven johnson:

Summary Steven Johnsons How We Got to Now Ant Hive Media, 2016-02-21 Steven Johnson takes us on an exploration of historical innovations spanning the centuries. He traces aspects of modern life (such as clocks, refrigeration, eyeglass lenses, etc.) from the time of their invention by entrepreneurs, amateurs, and hobbyists to their unexpected historical outcomes. About the Author Ant Hive Media reads every chapter, extracts the understanding and leaves you with a new perspective and time to spare. We do the work so you can understand the book in minutes, not hours.

how we got to now six innovations that made the modern world steven johnson: Die Erfindung der Zukunft Steven Johnson, 2016-08-22 Ein neuer Blick auf die Geschichte und Macht großer Ideen In dieser bebilderten Darstellung sechs großer technologischer Neuerungen, die unsere moderne Welt auf vielfältige Weise prägen, zeichnet Steven Johnson die Geschichte der Innovation über die Jahrhunderte nach, indem er bedeutsame Facetten des modernen Alltags (seien es Kühleinrichtungen, Uhren oder Brillengläser) von ihrer Erfindung durch Hobbyforscher, Amateure und Unternehmer bis zu ihren unerwarteten historischen Konsequenzen verfolgt. Das Buch steckt voller überraschender Schilderungen zufälliger genialer Entdeckungen und brillanter Fehlschläge - wie die Geschichte des französischen Verlegers, der den Phonographen schon vor Edison erfunden hatte, oder die des Hollywood-Stars, der zur Entwicklung der Technik hinter WLAN und Bluetooth beitrug. Dabei deckt Johnson immer wieder unerwartete Verbindungen zwischen scheinbar unzusammenhängenden Feldern auf: So ermöglichte die Erfindung der Klimatisierung gewaltige Wanderungsbewegungen von Menschen, nämlich in Millionenstädte wie Dubai oder Phoenix, die ansonsten praktisch unbewohnbar wären; Pendeluhren trugen dazu bei, die Industrielle Revolution auszulösen; sauberes Wasser erwies sich als Voraussetzung für die Produktion von Computer-Chips. Die Erfindung der Zukunft ist die Geschichte jener kollaborativen Netzwerke, die unsere moderne Welt schufen - informativ, oft provokativ und immer unterhaltsam.

how we got to now six innovations that made the modern world steven johnson:

Wonderland Steven Johnson, 2016-12-01 'The book is a house of wonders' The New York Times 'Steven Johnson is the Darwin of technology' Walter Issacson, author of Steve Jobs What connects Paleolithic bone flutes to the invention of computer software? Or the Murex sea snail to the death of the great American city? How does the bag of crisps you hold in your hand help tell the story of humanity itself? In Wonderland, his brilliant work on the history of innovation, international bestseller Steven Johnson argues that the pursuit of novelty and wonder has always been a powerful driver of world-shaping technological change. He finds that throughout history, the cutting edge of innovation lies wherever people are working the hardest to keep themselves and others amused. Johnson's storytelling is just as delightful as the inventions he describes, full of surprising stops along the journey from simple concepts to complex modern systems. He introduces us to the colourful innovators of leisure: the explorers, proprietors, showmen, and artists who changed the trajectory of history with their luxurious wares, exotic meals, taverns, gambling tables, and magic shows. Johnson compellingly argues that observers of technological and social trends should be looking for clues in novel amusements. You'll find the future wherever people are having the most fun.

how we got to now six innovations that made the modern world steven johnson: Future

Perfect Steven Johnson, 2012-09-18 From the New York Times bestselling author of How We Got To Now, Farsighted, and Extra Life Combining the deft social analysis of Where Good Ideas Come From with the optimistic arguments of Everything Bad Is Good For You, New York Times bestselling author Steven Johnson's Future Perfect makes the case that a new model of political change is on the rise, transforming everything from local governments to classrooms, from protest movements to health care. Johnson paints a compelling portrait of this new political worldview -- influenced by the

success and interconnectedness of the Internet, by peer networks, but not dependent on high-tech solutions -- that breaks with the conventional categories of liberal or conservative, public vs. private thinking. With his acclaimed gift for multi-disciplinary storytelling and big idea books, Johnson explores this new vision of progress through a series of fascinating narratives: from the "miracle on the Hudson" to the planning of the French railway system; from the battle against malnutrition in Vietnam to a mysterious outbreak of strange smells in downtown Manhattan; from underground music video artists to the invention of the Internet itself. At a time when the conventional wisdom holds that the political system is hopelessly gridlocked with old ideas, Future Perfect makes the timely and inspiring case that progress is still possible, and that innovative strategies are on the rise. This is a hopeful, affirmative outlook for the future, from one of the most brilliant and inspiring visionaries of contemporary culture.

how we got to now six innovations that made the modern world steven johnson: Die taumelnde Welt Bill McKibben, 2019-09-23 Im Jahr 1989 warnte Bill McKibben mit seinem Buch »Das Ende der Natur« als einer der ersten vor dem Klimawandel. Sein neuer Aufruf ist umso dringender und weitreichender – die Menschheit ist dabei, nicht weniger als ihr Fortbestehen aufs Spiel zu setzen. Der Klimawandel ist heute, so McKibben, ein Hebel, der unsere Welt von Grund auf verändert. Die konzentrierte wirtschaftliche Macht in den Händen einiger weniger Spieler ist ein weiterer. Genauso die radikalen Konsequenzen der modernen Genetik sowie das Streben der Tech-Mogule nach künstlicher Intelligenz, das nach dem Sinn menschlichen Daseins gar nicht mehr fragt. In »Die taumelnde Welt« tritt Bill McKibben einen großen Schritt zurück, um dieses gesamte »Spiel der Menschheit« zu betrachten: Welchen Lauf nimmt es, wer macht die Regeln, und wie wollen wir es in Zukunft spielen?

how we got to now six innovations that made the modern world steven johnson: Das Jahrhundert der Pandemien Mark Honigsbaum, 2021-02-01 Eine lehrreiche Medizingeschichte über ein Jahrhundert voller Krankheiten und wissenschaftlichen Fortschritts Medizinhistoriker und Journalist Dr. Mark Honigsbaum blickt auf 100 Jahre Pandemiegeschichte zurück und präsentiert dabei medizinische Höchstleistungen Wer sich nicht an seiner Vergangenheit erinnert, ist verurteilt, sie zu wiederholen. Dieser Satz des spanischen Philosophen George Santayana muss heute fast ironisch wirken: Medizinhistoriker Mark Honigsbaum blickt in seinem Sachbuch Das Jahrhundert der Pandemien auf die Epidemien der vergangenen 100 Jahre zurück. Er beschreibt die Ausbrüche der Spanischen Grippe, der sogenannten Papageienkrankheit, der Legionärskrankheit, und verfolgt die Entwicklung von AIDS in Amerika und Afrika, von Ebola und Zika. Mit Covid-19 reicht seine Schilderung bis ins Heute hinein. Dabei fördert er immer wieder interessante wie tragische Parallelen zwischen Vergangenheit und Gegenwart zutage. Zu jeder Zeit lassen sich nämlich engagierte Forscher finden, die bei ihrer Bekämpfung einer Seuche durch frustrierende bürokratische Verwaltungsapparate und andere Hindernisse ausgebremst werden. »Honigsbaum ist nicht bloß ein gründliches Werk jüngerer Medizingeschichte gelungen, sondern auch ein Page-Turner.« NZZ Wie in einem spannenden Roman beschreibt Mark Honigsbaum in Das Jahrhundert der Pandemien die immer wiederkehrende Suche nach neuen Krankheitserregern. Die Beteiligten bringen sich dabei sogar selbst in Gefahr, um das Leben Millionen anderer Menschen zu retten – manchmal mit fatalen Folgen. Ausbruch, Verbreitung und Bekämpfung – die Lehren eines Jahrhunderts voller Epidemien in einem Buch vereint »Mark Honigsbaum hat ein faszinierendes Buch über ein gerne beiseitegeschobenes Thema geschrieben: Wenn uns die vergangenen 100 Jahre – und nicht nur sie – etwas gelehrt haben, dann, dass neue Krankheiten und Virenstämme uns unweigerlich heimsuchen werden, egal wie hoch entwickelt die Wissenschaft wird.« — Deutschlandfunk Auslese

how we got to now six innovations that made the modern world steven johnson: Teaching for Transfer Michael McDowell, 2020-07-21 Empower students to become creative, well-rounded citizens who are prepared to meet and overcome real-world challenges. With Teaching for Transfer, you'll discover a road map for reconfiguring K-12 classroom instruction to ensure learners can expertly apply their knowledge and skills to new contexts. The resource includes ample

practices and protocols you can begin using today to cultivate essential transfer-level skills in students. Use this resource to introduce students to varied perspectives and instances of perplexity: Study the three levels of complexity: (1) surface, (2) deep, and (3) transfer. Understand how foundational knowledge and skills can be leveraged to create transfer-level learning experiences and increase student engagement and problem-solving skills. Learn specific teaching strategies and protocols for incorporating perspective and perplexity in the classroom to mimic real-world challenges. Use end-of-chapter reflection questions individually and collaboratively, with other teachers, to build students' transferable skills. Contents: Acknowledgments Table of Contents About the Author Introduction Chapter 1: Laying Foundations: Building Surface-and-Deep Networks Chapter 2: Co-constructing Learning Intentions at Transfer: Building Transfer Networks Chapter 3: Introducing Change in the Learning Experience: Leveraging Perspective and Perplexity Chapter 4: Engaging Students in Transfer-Level Learning Chapter 5: Creating the Right Conditions for Transfer in the School Context: Transitioning and Teaming Epilogue Appendix A: Resources for Foundational Learning Appendix B: Resources for Transfer-Network Development Appendix C: Resources for Engagement in Transfer-Level Work References and Resources Index

how we got to now six innovations that made the modern world steven johnson: Jobs to Be Done Stephen Wunker, Jessica Wattman, David Farber, 2016-11-15 In a challenging economy filled with multiple competitors, no one can afford to stagnate. Yet, innovation is notoriously difficult. How do you pinpoint the winning ideas that customers will love? Sifting through purchasing data for clues about what might sell or haphazardly brainstorming ideas are typical strategies. However, innovation expert Stephen Wunker offers the effective Jobs method: determining the drivers of customer behavior--those functional and emotional goals that people want to achieve. This simple shift in perspective opens up new insights about your customers and a wealth of hidden opportunities. For example, social media newcomer Snapchat used the Jobs process to capture the millennial demographic. By reducing functionality, the company satisfied its users' unmet need to document real life in the moment, without filters and like buttons. Packed with similar examples from every industry, this complete innovation guide explains both foundational concepts and a detailed action plan developed by Wunker and his team. In Jobs to Be Done, the groundbreaking Jobs Roadmap takes you step-by-step through the innovation process and reveals how to: Gather valuable customer insights Turn those insights into new product ideas Test and iterate until you find original profitable solutions And much more! Jobs to Be Done gives you a clear-cut framework for thinking about your business, outlines a roadmap for discovering new markets, new products and services, and helps you generate creative opportunities to innovate your way to success.

how we got to now six innovations that made the modern world steven johnson: The Traveling Economist Todd A. Knoop, 2017-03-09 This fascinating book introduces travelers—of the body or the mind—to a few simple economic concepts that will help them to think differently and more deeply about the differences between the people and the places they visit during their journeys. The principles and mechanics of economics are firmly rooted in everything around us, in our home country as well as in every nation and culture around the world. Having a basic grasp of economics can help all travelers to think more carefully about why things work differently in different places. Armed with this knowledge, readers will be equipped to better appreciate—and learn from—the beauty and complexity of the world around us. The Traveling Economist: Using Economics to Think about What Makes Us All So Different and the Same illustrates important economic concepts that every traveler and world citizen should understand. Employing clear, jargon-free explanations and illustrated with real-life examples, Knoop uniquely focuses on the interplay between travel and economics. He uses our shared travel experiences to illustrate exactly how economic thinking supplies such a powerful framework for understanding the world around us. More than simply explaining economics through travel experiences, this book enables adventurers who desperately want to avoid being tourists—i.e., people who travel to see what they know is there—to become explorers: those who learn each and every day from what they witness.

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Pandemic Century Mark Honigsbaum, 2019-03-09 Like sharks, epidemic diseases always lurk just beneath the surface. This fast-paced history of their effect on mankind prompts questions about the limits of scientific knowledge, the dangers of medical hubris, and how we should prepare as epidemics become ever more frequent. Ever since the 1918 Spanish influenza pandemic, scientists have dreamed of preventing catastrophic outbreaks of infectious disease. Yet, despite a century of medical progress, viral and bacterial disasters continue to take us by surprise, inciting panic and dominating news cycles. From the Spanish flu and the 1924 outbreak of pneumonic plague in Los Angeles to the 1930 'parrot fever' pandemic and the more recent SARS, Ebola, and Zika epidemics, the last 100 years have been marked by a succession of unanticipated pandemic alarms. Like man-eating sharks, predatory pathogens are always present in nature, waiting to strike; when one is seemingly vanquished, others appear in its place. These pandemics remind us of the limits of scientific knowledge, as well as the role that human behaviour and technologies play in the emergence and spread of microbial diseases.

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