

# surowiecki wisdom of crowds

surowiecki wisdom of crowds is a compelling concept in the fields of economics, psychology, and decision science that highlights how collective intelligence can often outperform individual expertise when it comes to problem-solving, forecasting, and decision-making. Coined by James Surowiecki in his influential book *The Wisdom of Crowds*, this idea explores the surprising power of diverse, independent, and decentralized groups to arrive at better judgments than even experts.

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## Understanding the Wisdom of Crowds

### What Is the Wisdom of Crowds?

The wisdom of crowds refers to the phenomenon where the aggregated guesses, opinions, or decisions of a large, diverse group tend to be more accurate or effective than those of individual experts or small groups. It suggests that under certain conditions, collective judgment can be remarkably reliable.

This concept challenges the traditional view that expertise and specialization are the ultimate sources of accurate knowledge. Instead, it emphasizes that the diversity of thought, independence of individual judgments, and decentralized decision-making can lead to more accurate outcomes.

### Historical Examples of Collective Wisdom

Historically, the wisdom of crowds has been observed in various contexts, such as:

- The accuracy of animal herds in navigation.
- The success of early stock market predictions based on the collective behavior of traders.

- The accuracy of the "Guess the Weight" contest at fairs, where the average of all guesses often comes very close to the actual weight.

These examples demonstrate that, when conditions are right, large groups can harness collective intelligence to produce surprisingly precise results.

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## **Core Principles of the Wisdom of Crowds**

To understand how the wisdom of crowds functions effectively, it is essential to grasp its core principles:

### **1. Diversity of Opinion**

Diverse perspectives and varied backgrounds contribute to a broader range of ideas and solutions. This diversity helps prevent groupthink and biases, leading to more balanced and accurate judgments.

### **2. Independence**

Individual judgments should be made independently, without undue influence from others. Independence ensures that errors are not correlated, allowing the collective estimate to be closer to the true value.

### **3. Decentralization**

Decentralized decision-making allows individuals with specific knowledge or expertise to contribute meaningfully. It prevents a single authority from dominating the decision process.

## **4. Aggregation**

Effective mechanisms are necessary to compile individual judgments into a collective decision or estimate. This aggregation process is crucial for harnessing the group's collective wisdom.

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## **Conditions Necessary for the Wisdom of Crowds to Work**

While the concept sounds straightforward, its effectiveness hinges on specific conditions:

### **1. Diversity in the Group**

Members should have varied backgrounds, knowledge, and perspectives to cover a broad spectrum of possible solutions.

### **2. Independence of Judgment**

Participants must make their judgments independently to avoid herd behavior or conformity bias.

### **3. Proper Aggregation Methods**

There should be a reliable way to combine individual opinions, such as averaging guesses or voting systems.

### **4. No Systematic Bias**

The group should not share common misconceptions or biases that could skew the collective judgment in one direction.

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## Applications of the Wisdom of Crowds

The principles behind the wisdom of crowds are utilized across various industries and fields:

### 1. Market Predictions

Stock markets and prediction markets often reflect collective expectations about future events, frequently outperforming expert forecasts.

### 2. Innovation and Problem Solving

Crowdsourcing platforms like InnoCentive or Kaggle leverage large diverse groups to solve complex research problems or develop new products.

### 3. Decision-Making in Politics and Governance

Public opinion polls aggregate individual preferences to guide policy decisions and electoral outcomes.

### 4. Scientific Research

Citizen science projects involve the public in data collection and analysis, harnessing collective effort for scientific progress.

### 5. Entertainment and Gaming

Online prediction markets and betting platforms utilize crowd wisdom to forecast outcomes of sports,

elections, and other events.

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## Advantages of the Wisdom of Crowds

Harnessing collective intelligence offers several benefits:

- **Improved Accuracy:** Collective estimates tend to be closer to the true value than individual guesses.
- **Cost-Effective:** Gathering opinions from large groups can be more economical than relying solely on experts.
- **Robustness:** Diverse perspectives help mitigate individual biases and errors.
- **Innovation:** Crowdsourcing can lead to creative solutions and ideas that might not emerge from a homogenous group.

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## Limitations and Challenges of the Wisdom of Crowds

Despite its strengths, the wisdom of crowds is not infallible. Several factors can undermine its effectiveness:

## **1. Groupthink and Conformity**

When individuals feel pressured to conform, independent judgment diminishes, reducing the group's wisdom.

## **2. Lack of Diversity**

Homogeneous groups are more prone to shared biases and errors, decreasing accuracy.

## **3. Dominance and Influence**

Strong personalities or authoritative figures can sway opinions, impairing independence.

## **4. Systematic Biases**

Shared misconceptions or cultural biases can skew the collective judgment.

## **5. Inadequate Aggregation Methods**

Poorly designed voting or averaging systems can lead to misleading results.

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# **Enhancing the Effectiveness of Crowdsourcing and Collective Decision-Making**

To maximize the benefits of the wisdom of crowds, organizations and individuals should consider:

- Ensuring diversity in the participant pool.
- Encouraging independent thinking and minimizing undue influence.
- Using robust aggregation methods, such as median or weighted averages.
- Creating platforms that facilitate transparent and unbiased participation.
- Providing feedback and information to help participants refine their judgments.

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## Conclusion: The Power and Limitations of Collective Intelligence

The surowiecki wisdom of crowds demonstrates the remarkable potential of collective intelligence to improve decision-making, forecasts, and problem-solving when the right conditions are met. It emphasizes the importance of diversity, independence, decentralization, and proper aggregation in harnessing the true power of groups.

However, it is equally important to recognize its limitations. Biases, lack of diversity, or poor implementation can diminish its effectiveness. Therefore, leveraging the wisdom of crowds requires thoughtful design and awareness of its constraints.

As technology advances and platforms for crowdsourcing become more sophisticated, the potential for harnessing collective intelligence will only grow. Whether in predicting election outcomes, developing innovative solutions, or making policy decisions, understanding the principles behind surowiecki's wisdom of crowds can help organizations and individuals make better, more informed choices.

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Keywords: wisdom of crowds, collective intelligence, decision-making, crowdsourcing, group accuracy, diversity, independence, aggregation, prediction markets, innovation

## **Frequently Asked Questions**

### **What is the core idea behind Surowiecki's 'Wisdom of Crowds'?**

Surowiecki's 'Wisdom of Crowds' posits that large, diverse, and independent groups of people can often make better decisions and predictions than individuals or small expert groups.

### **How does diversity contribute to the effectiveness of a crowd's decision-making according to Surowiecki?**

Diversity brings different perspectives and information, reducing groupthink and increasing the likelihood of accurate collective judgments.

### **What are some key conditions necessary for a crowd to be truly wise?**

The crowd's members must be independent, diverse, decentralized, and collectively motivated to produce accurate outcomes.

### **Can 'Wisdom of Crowds' be applied to modern technology and social media?**

Yes, social media platforms can harness collective intelligence, but challenges like echo chambers and misinformation can undermine true crowd wisdom.



## **What are common pitfalls that can prevent crowds from making wise decisions?**

Groupthink, lack of independence, polarization, misinformation, and herd behavior can all impair the collective decision-making process.

## **How does Surowiecki differentiate between 'wisdom of crowds' and 'mob mentality'?**

While 'wisdom of crowds' relies on independent, diverse, and rational inputs, 'mob mentality' involves emotional contagion and herd behavior leading to irrational decisions.

## **In what industries or scenarios is Surowiecki's 'Wisdom of Crowds' particularly influential?**

It is influential in finance (stock market predictions), technology (crowdsourcing ideas), politics (public opinion), and product development (user feedback).

## **What role does independence play in the success of a wise crowd?**

Independence ensures that individual opinions are not swayed by others, leading to more accurate aggregate judgments.

## **How can organizations harness the 'Wisdom of Crowds' effectively?**

By encouraging diversity, independence, decentralization, and aggregating individual inputs through surveys, predictions, or crowdsourcing platforms.

## **Has recent research supported or challenged Surowiecki's 'Wisdom of Crowds' theory?**

Recent studies have largely supported the theory but also highlighted limitations, especially in

environments prone to bias, misinformation, or lack of independence among participants.

## **Additional Resources**

### **Surowiecki's Wisdom of Crowds: Unlocking Collective Intelligence**

The concept of wisdom of crowds is a fascinating and powerful idea that has influenced fields ranging from economics and psychology to politics and technology. Proposed prominently by James Surowiecki in his acclaimed book *The Wisdom of Crowds*, this theory asserts that large groups of people are often collectively smarter and more accurate in their judgments than individual experts. While it might seem counterintuitive—after all, why would a diverse group outperform specialists?—a detailed examination reveals the nuanced conditions under which crowds excel and the potential pitfalls when these conditions are not met.

In this comprehensive review, we will explore the core principles of Surowiecki's wisdom of crowds, analyze the critical factors that contribute to or hinder collective intelligence, and examine real-world applications and implications across various domains.

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## **Understanding the Foundations of the Wisdom of Crowds**

### **Origins and Theoretical Background**

The idea that groups can be smarter than individuals has deep roots, but Surowiecki's contribution was to formalize this intuition into a set of criteria that explain when and why crowds tend to be wise.

- Historical antecedents: Thinkers like Francis Galton in the early 20th century observed that the

aggregated guesses of a large group about the weight of an ox often approached the actual weight more closely than individual guesses.

- Modern formalization: Surowiecki distilled these observations into four key conditions that enable crowds to be wise:

1. Diversity of opinion
2. Independence of members
3. Decentralization of decision-making
4. Aggregation mechanism

These principles form the backbone of the wisdom of crowds and serve as a blueprint for designing systems and environments that harness collective intelligence.

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## Core Principles of the Wisdom of Crowds

### Diversity of Opinion

Diversity serves as the bedrock of effective collective decision-making. When multiple perspectives, heuristics, and information sources are included, the group can compensate for individual biases and blind spots.

- Why diversity matters:
- It introduces varied approaches to problem-solving.
- It reduces the risk of groupthink, where conformity stifles innovation.
- It enriches the pool of information, leading to more robust conclusions.
- Implications: Encouraging diverse viewpoints—whether through cultural, cognitive, or experiential differences—enhances the overall accuracy and resilience of the group's judgment.

## Independence of Members

Independence ensures that individual opinions are not unduly influenced by others, which is vital for maintaining the integrity of the collective estimate.

- Why independence is critical:
  - It prevents herding behavior, where individuals follow the majority without critical evaluation.
  - It preserves the unique information each member holds.
- Challenges to independence:
  - Social influence, peer pressure, or authoritative figures can undermine independence.
  - Modern social media platforms, for example, may foster echo chambers that reduce independence.
- Strategies to promote independence:
  - Anonymized voting or polling.
  - Structured decision processes that minimize social influence.
  - Encouraging individuals to rely on their own information before consulting others.

## Decentralization of Decision-Making

Decentralization involves distributing decision authority across many individuals rather than centralizing it in a single expert or authority.

- Benefits of decentralization:
  - It allows local and specialized knowledge to inform the decision.
  - It fosters innovation by enabling multiple approaches.
  - It prevents single points of failure.
- Examples:
  - Market mechanisms, where numerous buyers and sellers influence prices.
  - Open-source communities contributing to software development.
- Implementation: Decentralized environments should be designed to empower independent decision-

makers and facilitate information flow.

## Aggregation Mechanism

Without a proper mechanism to combine individual judgments, the wisdom of the crowd cannot be realized.

- Types of aggregation:
- Simple averaging (e.g., in prediction markets).
- Voting systems.
- Statistical models or algorithms.
- Importance: The aggregation process must be transparent, unbiased, and capable of synthesizing diverse inputs into a reliable collective estimate.
- Examples: Prediction markets, polls, ensemble machine learning models.

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## Conditions for the Wisdom to Manifest

While the core principles are necessary, their effective application depends on certain conditions being met:

1. Large and Diverse Group: The larger and more varied the group, the more likely it is to produce accurate judgments.
2. Accurate and Independent Information: Members must possess relevant, independent insights.
3. Proper Aggregation: There must be a mechanism to combine individual opinions effectively.
4. Motivation and Engagement: Participants need to be motivated to provide honest and thoughtful input.

Failing in any of these areas can undermine the group's collective intelligence, leading to errors, biases, or convergence on incorrect solutions.

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## **Applications of the Wisdom of Crowds**

Surowiecki's theory has found practical applications across a broad spectrum of fields:

### **Financial Markets**

- Prediction markets: Platforms where individuals buy and sell contracts based on future events, aggregating diverse opinions into probabilistic forecasts.
- Stock market behavior: Market prices reflect collective expectations, often outperforming individual analysts.

### **Political and Social Decision-Making**

- Public polls: Gauging public opinion on policies or candidates.
- Crowdsourcing policy ideas: Platforms inviting citizen input to inform decision-makers.

### **Technology and Innovation**

- Crowdsourced problem solving: Platforms like Kaggle or InnoCentive where diverse experts tackle complex problems.
- Open-source development: Collective contributions leading to robust and innovative software.

## Science and Knowledge Aggregation

- Meta-analyses: Combining results from multiple studies to derive more accurate conclusions.
- Citizen science projects: Engaging the public to collect data or analyze findings.

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## Limitations and Challenges of the Wisdom of Crowds

Despite its strengths, the wisdom of crowds is not infallible. Certain conditions or factors can significantly impair collective judgment:

### Groupthink and Conformity

- When members prioritize harmony over critical evaluation, leading to consensus errors.
- Example: Historical instances of collective misjudgments during crises.

### Herding Behavior

- When individuals blindly follow the majority, ignoring private information.
- Common in financial bubbles or social media trends.

### Biases and Information Cascades

- Early incorrect signals can cascade, leading the entire group astray.

- Confirmation bias may reinforce skewed beliefs.

## **Homogeneity and Lack of Diversity**

- Similar backgrounds or opinions reduce the benefits of diversity.
- Can lead to systematic errors or oversights.

## **Poor Aggregation Methods**

- Ineffective or biased aggregation can distort the collective estimate.
- Example: weighted voting that favors certain groups.

## **Environmental and Contextual Constraints**

- Time pressure, incomplete information, or high stakes can impair decision quality.

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## **Enhancing the Wisdom of Crowds in Practice**

To maximize the benefits of collective intelligence, practitioners should consider:

- Encouraging diversity: Actively recruit varied perspectives.
- Promoting independence: Minimize undue influence and social conformity.
- Ensuring proper aggregation: Use transparent, statistically sound methods.
- Creating supportive environments: Foster motivation, trust, and open communication.



- Mitigating biases: Implement checks for groupthink and herding.

Technology plays a pivotal role in this endeavor. Digital platforms can facilitate anonymous participation, diversify input sources, and apply sophisticated algorithms to synthesize collective judgments.

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## Critiques and Ongoing Debates

While Surowiecki's wisdom of crowds has gained widespread acceptance, it also faces critiques:

- Overgeneralization: Not all groups are wise; context matters.
- Neglect of power dynamics: Social hierarchies can suppress diverse opinions.
- Questioning independence: Difficult to maintain in interconnected environments.
- Potential for manipulation: Malicious actors can exploit crowd mechanisms.

Research continues to refine understanding of how to foster true collective intelligence, considering technological, social, and psychological factors.

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## Conclusion: The Power and Prudence of Collective Judgment

Surowiecki's wisdom of crowds remains a compelling testament to the potential of collective decision-making. When the key principles of diversity, independence, decentralization, and effective aggregation are upheld, groups can outperform even expert individuals in predicting outcomes, solving problems, and generating innovative ideas. However, realizing this potential requires mindful design, awareness

of limitations, and ongoing efforts to counteract biases and social pressures.

In an era increasingly driven by data, crowdsourcing, and citizen participation, understanding and leveraging the wisdom of crowds can lead to more accurate forecasts, better policies, and richer innovations. As Surowiecki eloquently demonstrates, sometimes a diverse, independent, and decentralized group of individuals—if properly coordinated—can be the most reliable source of insight and judgment.

## **Surowiecki Wisdom Of Crowds**

**surowiecki wisdom of crowds: The Wisdom of Crowds** James Surowiecki, 2005-08-16 In this fascinating book, New Yorker business columnist James Surowiecki explores a deceptively simple idea: Large groups of people are smarter than an elite few, no matter how brilliant—better at solving problems, fostering innovation, coming to wise decisions, even predicting the future. With boundless erudition and in delightfully clear prose, Surowiecki ranges across fields as diverse as popular culture, psychology, ant biology, behavioral economics, artificial intelligence, military history, and politics to show how this simple idea offers important lessons for how we live our lives, select our leaders, run our companies, and think about our world.

**surowiecki wisdom of crowds: An Analysis of James Surowiecki's The Wisdom of Crowds** Nikki Springer, 2018-05-20 In The Wisdom of Crowds, New Yorker columnist, Surowiecki, explores the question of whether the many are better than an elite few - no matter their qualifications - at solving problems, promoting innovation and making wise decisions. Surowiecki's text uses multiple case studies and touches on the arenas of pop culture, sociology, business management and behavioural economics among others. Surowiecki's is a fascinating text that is key to considerations and theorisations about economics, politics and sociology.

**surowiecki wisdom of crowds: The Wisdom of Crowds** James Surowiecki, 2005 In this landmark work, NEW YORKER columnist James Surowiecki explores a seemingly counter-intuitive idea that has profound implications: Decisions take by a large group, even if the individuals within the group aren't smart, are always better than decisions made by small numbers of 'experts'. This seemingly simply notion has endless and major ramifications for how businesses operate, how knowledge is advanced, how economies are (or should be) organised and how nation-states fare. With great erudition, Surowiecki ranges across the disciplines of psychology, economics, statistics and history to show just how this principle operates in the real world. Along the way Surowiecki asks a number of intriguing questions about a subject few of us actually understand - economics. What are prices? How does money work? Why do we have corporations? Does advertising work? His answers, rendered in a delightfully clear prose, demystify daunting prospects. As Surowiecki writes: 'The hero of this book is, in a curious sense, an idea, a hero whose story ends up shedding dramatic new light on the landscapes of business, politics and society'.

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knowledge is advanced, how economies are (or should be) organised and how nation-states fare. With great erudition, Surowiecki ranges across the disciplines of psychology, economics, statistics and history to show just how this principle operates in the real world. Along the way Surowiecki asks a number of intriguing questions about a subject few of us actually understand - economics. What are prices? How does money work? Why do we have corporations? Does advertising work? His answers, rendered in a delightfully clear prose, demystify daunting prospects. As Surowiecki writes: 'The hero of this book is, in a curious sense, an idea, a hero whose story ends up shedding dramatic new light on the landscapes of business, politics and society'.

**surowiecki wisdom of crowds: Summary of James Surowiecki's The Wisdom of Crowds** Everest Media,, 2022-04-29T22:59:00Z Please note: This is a companion version & not the original book. Sample Book Insights: #1 The TV show Who Wants to Be a Millionaire. pitted group intelligence against individual intelligence, and every week, group intelligence won. The results would never stand up to scientific scrutiny, but it is hard to resist the thought that the success of the Millionaire audience was a modern example of the same phenomenon that Francis Galton saw a century ago. #2 The group intelligence demonstrated by the jelly-beans-in-the-jar experiment is not the same for every single group. In many cases, there will be a few people who do better than the group, which is a good thing since it gives people reason to keep participating. #3 The judgment of crowds is good in laboratory settings and classrooms, but what happens in the real world. #4 The stock market is, at least in theory, a machine for calculating the present value of all the free cash flow a company will earn in the future. The steep decline in Thiokol's stock price, compared with the slight declines in the stock prices of its competitors, was an unmistakable sign that investors believed that Thiokol was responsible for the Challenger disaster.

**surowiecki wisdom of crowds: James Surowiecki's the Wisdom of Crowds** Nikki Springer, 2018 In The Wisdom of Crowds, New Yorker columnist, Surowiecki, explores the question of whether the many are better than an elite few - no matter their qualifications - at solving problems, promoting innovation and making wise decisions. Surowiecki's text uses multiple case studies and touches on the arenas of pop culture, sociology, business management and behavioural economics among others. Surowiecki's is a fascinating text that is key to considerations and theorisations about economics, politics and sociology.

**surowiecki wisdom of crowds: Review of James Surowiecki's 'the Wisdom of Crowds'** Craig W. French, 2005 The Wisdom of Crowds is a well-argued contrarian counterpoint to the commonly received counsel that crowds are by their very nature delusional and mad. The quality of Surowiecki's argument is enhanced by the scope of his presentation, which neatly encompasses both the point and the counterpoint. The scope of The Wisdom of Crowds is much broader than just finance and markets. The value in Surowiecki's effort, with its seemingly oxymoronic title, is his presentation of evidence of what previously seemed to be evidence of group madness as special cases of a more general spectrum of collective decision-making.

**surowiecki wisdom of crowds: Marketing Greatest Hits** Kevin Duncan, 2010-09-01 Part of the Greatest Hits series, Marketing Greatest Hits by Kevin Duncan is an essential resource which utilizes a effective dual approach to mastering the best ideas of modern marketing: the first ten chapters give in-depth examination of critical topics, followed by quick summaries of the most talked about and thought-provoking work from the best business books published, including The Long Tail, Meatball Sundae, Buzz, Affluenza and Blink. The book will help you stay up-to-date on how to navigate the ever-changing landscape of marketing and distills an enormous amount of information on the best ideas and insight into memorable digests which will enable you to finally cross off "must reads" from your business reading list.

**surowiecki wisdom of crowds: The Second Digital Turn** Mario Carpo, 2017-10-20 The first digital turn in architecture changed our ways of making; the second changes our ways of thinking. Almost a generation ago, the early software for computer aided design and manufacturing (CAD/CAM) spawned a style of smooth and curving lines and surfaces that gave visible form to the first digital age, and left an indelible mark on contemporary architecture. But today's digitally

intelligent architecture no longer looks that way. In *The Second Digital Turn*, Mario Carpo explains that this is because the design professions are now coming to terms with a new kind of digital tools they have adopted—no longer tools for making but tools for thinking. In the early 1990s the design professions were the first to intuit and interpret the new technical logic of the digital age: digital mass-customization (the use of digital tools to mass-produce variations at no extra cost) has already changed the way we produce and consume almost everything, and the same technology applied to commerce at large is now heralding a new society without scale—a flat marginal cost society where bigger markets will not make anything cheaper. But today, the unprecedented power of computation also favors a new kind of science where prediction can be based on sheer information retrieval, and form finding by simulation and optimization can replace deduction from mathematical formulas. Designers have been toying with machine thinking and machine learning for some time, and the apparently unfathomable complexity of the physical shapes they are now creating already expresses a new form of artificial intelligence, outside the tradition of modern science and alien to the organic logic of our mind.

**surowiecki wisdom of crowds: Atlantic understandings** Claudia Schnurmann, Hartmut Lehmann, 2006 In honor of the German historian Hermann Wellenreuther, this volume explores the Atlantic world in all its many facets and extraordinary scope. Experts from different fields address economic problems as well as religious convictions, on the social differences and the everyday life experiences of the ordinary people as well as the aristocracy and the politics of princes. Taken together, the articles weave together German, English and American history and help us to understand the Atlantic societies on both sides of the ocean from the Middle Ages to the present. Claudia Schnurmann is professor at the Department of History at the University of Hamburg (Germany). Hartmut Lehmann is professor at the Max-Planck-Institute for History, Goettingen (Germany).

**surowiecki wisdom of crowds: The 100 Best Business Books of All Time** Jack Covert, Todd Sattersten, Sally Haldorson, 2016-08-02 Thousands of business books are published every year—Here are the best of the best After years of reading, evaluating, and selling business books, Jack Covert and Todd Sattersten are among the most respected experts on the category. Now they have chosen and reviewed the one hundred best business titles of all time—the ones that deliver the biggest payoff for today’s busy readers. *The 100 Best Business Books of All Time* puts each book in context so that readers can quickly find solutions to the problems they face, such as how best to spend *The First 90 Days* in a new job or how to take their company from Good to Great. Many of the choices are surprising—you’ll find reviews of *Moneyball* and *Orbiting the Giant Hairball*, but not Jack Welch’s memoir. At the end of each review, Jack and Todd direct readers to other books both inside and outside *The 100 Best*. And sprinkled throughout are sidebars taking the reader beyond business books, suggesting movies, novels, and even children’s books that offer equally relevant insights. This guide will appeal to anyone, from entry-level to CEO, who wants to cut through the clutter and discover the brilliant books that are truly worth their investment of time and money.

**surowiecki wisdom of crowds: *The Carriers*** Anne Skomorowsky, 2022-05-03 A tiny mutation on the X chromosome can shape a family’s history. Passed down from a “carrier” parent to a child, fragile X syndrome is the most common inherited cause of intellectual disability and autism. Beyond that—and a rarity among genetic disorders—some fragile X carriers not only transmit the mutation but also experience related conditions themselves. In such cases, carriers can have tremors, infertility, and psychiatric disorders that complicate raising children with fragile X syndrome—and all too often, they suffer in silence. *The Carriers* investigates this common but still little-known genetic condition and its life-altering consequences. Anne Skomorowsky reveals how this disorder afflicts families across generations, telling the stories of the mothers and grandparents of fragile X patients and considering how genes interact with family dynamics. She interweaves the personal narratives and family histories of the people affected by fragile X disorders with clear and accessible explanations of the science behind them. Skomorowsky unpacks the latest research on the fragile X mutation and explores the history of its discovery. She highlights the roles of women as carriers,

caregivers, and researchers who have made astonishing scientific breakthroughs over the last three decades. The Carriers is an essential book for fragile X families, including those just learning they are carriers, and for all readers interested in the complexities of heredity, the ethical dilemmas of genetic medicine, and the relationship between genes and personality.

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**surowiecki wisdom of crowds: The Hype Machine** Sinan Aral, 2021-09-14 A landmark insider's tour of how social media affects our decision-making and shapes our world in ways both useful and dangerous, with critical insights into the social media trends of the 2020 election and beyond "The book might be described as prophetic. . . . At least two of Aral's three predictions have come to fruition."—New York NAMED ONE OF THE BEST BOOKS OF THE YEAR BY WIRED • LONGLISTED FOR THE PORCHLIGHT BUSINESS BOOK AWARD Social media connected the world—and gave rise to fake news and increasing polarization. It is paramount, MIT professor Sinan Aral says, that we recognize the outsize effect social media has on us—on our politics, our economy, and even our personal health—in order to steer today's social technology toward its great promise while avoiding the ways it can pull us apart. Drawing on decades of his own research and business experience, Aral goes under the hood of the most powerful social networks to tackle the critical question of just how much social media actually shapes our choices, for better or worse. He shows how the tech behind social media offers the same set of behavior influencing levers to everyone who hopes to change the way we think and act—from Russian hackers to brand marketers—which is why its consequences affect everything from elections to business, dating to health. Along the way, he covers a wide array of topics, including how network effects fuel Twitter's and Facebook's massive growth, the neuroscience of how social media affects our brains, the real consequences of fake news, the power of social ratings, and the impact of social media on our kids. In mapping out strategies for being more thoughtful consumers of social media, The Hype Machine offers the definitive guide to understanding and harnessing for good the technology that has redefined our world overnight.

**surowiecki wisdom of crowds: CIO Best Practices** Gary Cokins, Karl D. Schubert, Michael H. Hugos, Randy Betancourt, Alyssa Farrell, Bill Flemming, Jonathan Hujsak, 2010-11-09 CIO BEST PRACTICES Enabling Strategic Value with Information Technology SECOND EDITION For anyone who wants to achieve better returns on their IT investments, CIO Best Practices, Second Edition presents the leadership skills and competencies required of a CIO addressing comprehensive enterprise strategic frameworks to fully leverage IT resources. Filled with real-world examples of CIO success stories, the Second Edition explores: CIO leadership responsibilities and opportunities The business impacts of both business and social networking, as well as ways the CIO can leverage the new reality of human connectivity on the Internet The increasingly inextricable relationships between customers, employees, and their use of personal information technologies Emerging cultural expectations and standards outside the workplace Current CRM best practices in terms of the relationship between customer preferences and shareholder wealth Enterprise energy utilization and sustainability practices otherwise known as Green IT with all the best practices collected here, in one place Best practices for one of the Internet's newest and most revolutionary technologies: cloud computing and ways it is shaping the new economics of business

**surowiecki wisdom of crowds: A Emergent Manifesto of Hope (ēmerſion: Emergent Village resources for communities of faith)** Doug Pagitt, Tony Jones, 2008-07-01 Many have heard of the emerging church, but few people feel like they have a handle on what the emerging church believes and represents. Is it a passing fad led by disenfranchised neo-evangelicals? Or is it the future of the

church at large? Now available in trade paper, *An Emergent Manifesto of Hope* represents a coming together of divergent voices into a conversation that pastors, students, and thoughtful Christians can now learn from and engage in. This unprecedented collection of writings includes articles by some of the most important voices in the emergent conversation, including Brian McLaren, Dan Kimball, and Sally Morgenthaler. It also introduces some lesser known but integral players representing who's next within the emerging church. The articles cover a broad range of topics, such as spirituality, theology, multiculturalism, postcolonialism, sex, evangelism, and many others. Anyone who wants to know what the emerging church is all about needs to start here.

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