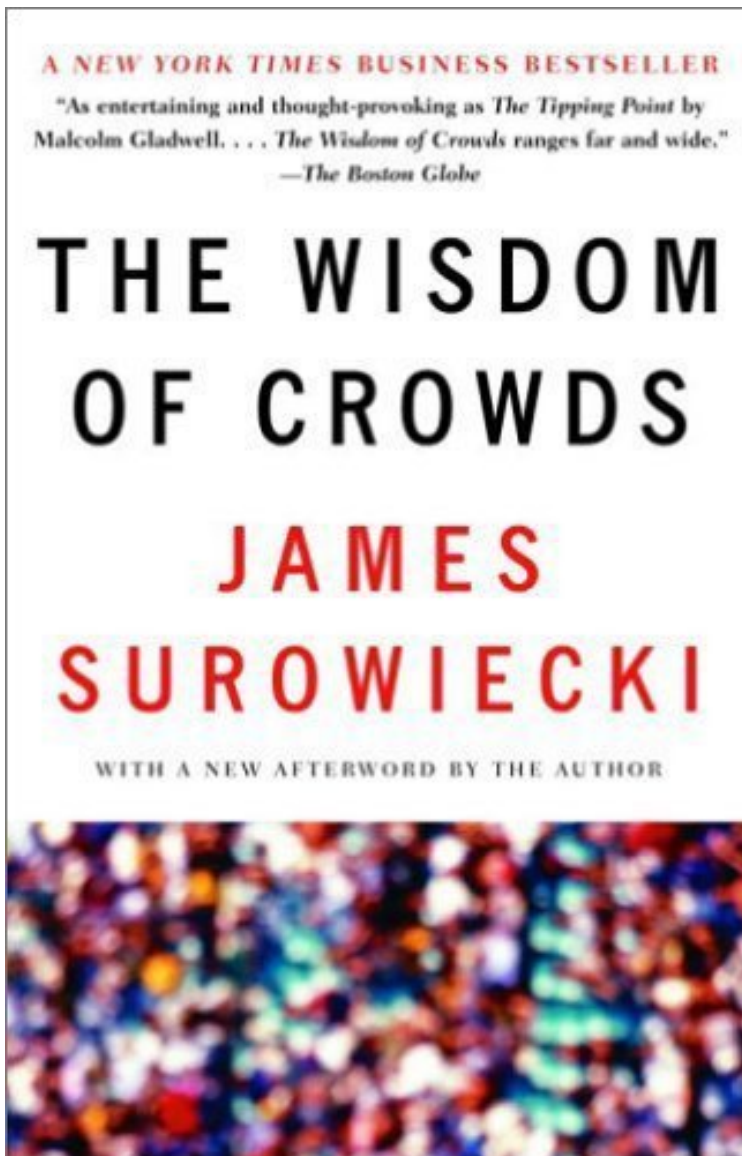


[Free] File size: 56.Mb

The Wisdom of Crowds



Par James Surowiecki
audiobook | *ebooks | Download PDF
| ePub | DOC

Dtails sur le produit Rang parmi les ventes : #125517 dans eBooksPubli le: 2005-08-16Sorti le: 2005-08-16Format: Ebook Kindle

[Free] The Wisdom of Crowds

Par James Surowiecki : The Wisdom of Crowds before purchasing it in order to gage whether or not it would be worth my time, and all praised The Wisdom of Crowds:

Download

Read Online

Description :

Prsentation de l'diteurIn 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 brilliantbetter 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.From .co.ukSmart people often believe that the opinion of the crowd is always inferior to the opinion of the individual specialist. Philosophical giants such as Nietzsche thought

that "Madness is the exception in individuals but the rule in groups". Henry David Thoreau lamented: "The mass never comes up to the standard of its best member but on the contrary degrades itself to a level with the lowest member." The motto of the great and the ordinary seems to be: Bet on the expert because crowds are generally stupid and often dangerous. Business columnist James Surowiecki's new book *The Wisdom of*

Crowds explains exactly why the conventional wisdom is wrong. The fact is that, under the right circumstances, groups are remarkably intelligent, and are often smarter than the smartest people in them.

Groups don't even need to be dominated by exceptionally intelligent people in order to be smart. Even if most of the people within a group are not especially well-informed or rational, it can still reach a collectively wise decision. Why? Because, as it turns out, if you ask a large enough group of diverse, independent people to make a prediction or estimate a probability, and then average those estimates, the errors each of them makes in coming up with an answer will cancel themselves out. Not any old crowd will do of course. For the crowd to be wise it has to satisfy four specific conditions, but once those conditions are met, its judgment is likely to be accurate. Surowiecki concentrates on three kinds of problems. The first are cognition problems (problems that are likely to have definitive answers, such as: "How many books will sell this month?"). The

second are problems of coordination (problems requiring members of a group to figure out how to coordinate their behaviour with one another) and the third are problems of cooperation (getting self-interested, distrustful people to work together-- despite their selfishness). The brilliant first half of the book illustrates this theory with practical examples. The second half of the book essentially consists of case studies with each chapter talking about the way collective intelligence either flourishes or flounders. Much of this part deals with business topics such as corporations, markets and the dynamics of a stock-market bubble. Surowiecki has an engaging, direct style defending his surprising central thesis in entertaining ways by, for example, talking about laying bets on football games and political elections; traffic jams; Google; the

Challenger explosion and the search for a missing submarine. *The Wisdom of Crowds* is an entertaining book making a serious point and by the end of the superb first half the reader has been made to accept that, while with most things, the average is mediocrity, when it comes to decision-making the average results in excellence. --Larry Brown

Extrait *The Wisdom of Crowds* If, years hence, people remember anything about the TV game show *Who Wants to Be a Millionaire?*, they will probably remember the contestants' panicked phone calls to friends and relatives. Or they may have a faint memory of that short-lived moment when Regis Philbin became a fashion icon for his willingness to wear a dark blue tie with a dark blue shirt. What

people probably won't remember is that every week *Who Wants to Be a Millionaire?* pitted group intelligence against individual intelligence, and that every week, group intelligence won. *Who Wants to Be a Millionaire?* was a simple show in terms of structure: a contestant was asked multiple-choice questions, which got successively more difficult, and if she answered fifteen questions in a row correctly, she walked away with \$1 million. The show's gimmick was that if a contestant got stumped by a question, she could pursue three avenues of assistance. First, she could have two of the four multiple-choice answers removed (so she'd have at least a fifty-fifty shot at the right response). Second, she could place a call to a friend or relative, a person whom, before the show, she had singled out as one of the smartest people she knew, and ask him or her for the answer. And third, she could poll the studio audience, which would immediately cast its votes by computer. Everything we think we know about intelligence suggests that the smart individual would offer the most help. And, in fact, the "experts" did okay, offering the right answer--under pressure--

almost 65 percent of the time. But they paled in comparison to the audiences. Those random crowds of people with nothing better to do on a weekday afternoon than sit in a TV studio picked the right answer 91 percent of the time. Now, the results of *Who Wants to Be a Millionaire?* would never stand up to scientific scrutiny. We don't know how smart the experts were, so we don't know how impressive outperforming them was. And since the experts and the audiences didn't always answer the same questions, it's possible, though not likely, that the audiences were asked easier questions. Even so, it's hard to resist the thought that the success of the Millionaire audience was a modern example of the same phenomenon that Francis Galton caught a glimpse of a century ago. As it happens, the possibilities of group intelligence, at least when it came

to judging questions of fact, were demonstrated by a host of experiments conducted by American sociologists and psychologists between 1920 and the mid-1950s, the heyday of research into group dynamics. Although in general, as we'll see, the bigger the crowd the better, the groups in most of these early experiments--which for some reason remained relatively unknown outside of academia--were relatively small. Yet they nonetheless performed very well. The Columbia sociologist Hazel Knight kicked things off with a series of studies in the early 1920s, the first of which had the virtue of simplicity. In that study Knight

asked the students in her class to estimate the room's temperature, and then took a simple average of the estimates. The group guessed 72.4 degrees, while the actual temperature was 72 degrees. This was not, to be sure, the most auspicious beginning, since classroom temperatures are so stable that it's hard to imagine a class's estimate being too far off base. But in the years that followed, far more convincing evidence emerged, as students and soldiers across America were subjected to a barrage of puzzles, intelligence tests, and word games. The sociologist Kate H. Gordon asked two hundred students to rank items by weight, and found that the group's "estimate" was 94 percent accurate, which was better than all but five of the individual guesses. In another experiment students were asked to look at ten piles of buckshot--each a slightly different size than the rest--that had been glued to a piece of white cardboard, and rank them by size. This time, the group's guess was 94.5 percent accurate. A classic demonstration of group intelligence is the jelly-beans-in-the-jar experiment, in which invariably the group's estimate is superior to the vast majority of the individual guesses. When finance professor Jack Treynor ran the experiment in his class with a jar that held 850 beans, the group estimate was 871. Only one of the fifty-six people in the class made a better guess. There are two lessons to draw from these experiments. First, in most of them the members of the group were not talking to each other or working on a problem together. They were making individual guesses, which were aggregated and then averaged. This is exactly what Galton did, and it is likely to produce excellent results. (In a later chapter, we'll see how having members interact changes things, sometimes for the better, sometimes for the worse.) Second, the group's guess will not be better than that of every single person in the group each time.

In many (perhaps most) cases, there will be a few people who do better than the group. This is, in some sense, a good thing, since especially in situations where there is an incentive for doing well (like, say, the stock market) it gives people reason to keep participating. But there is no evidence in these studies that certain people consistently outperform the group. In other words, if you run ten different jelly-bean-counting experiments, it's likely that each time one or two students will outperform the group. But they will not be the same students each time. Over the ten experiments, the group's performance will almost certainly be the best possible. The simplest way to get reliably good answers is just to ask the group each time. A similarly blunt approach also seems to work when wrestling with other kinds of problems. The theoretical physicist Norman

L. Johnson has demonstrated this using computer simulations of individual "agents" making their way through a maze. Johnson, who does his work at the Los Alamos National Laboratory, was interested in understanding how groups might be able to solve problems that individuals on their own found difficult. So he built a maze--one that could be navigated via many different paths, some shorter, and some longer--and sent a group of agents into the maze one by one. The first time through, they just wandered around, the way you would if you were looking for a particular cafe* in a city where you'd never been before. Whenever they came to a turning point--what Johnson called a "node"--they would randomly choose to go right or left.

Therefore some people found their way, by chance, to the exit quickly, others more slowly. Then Johnson sent the agents back into the maze, but this time he allowed them to use the information they'd learned on their first trip, as if they'd dropped bread crumbs behind them the first time around. Johnson wanted to know how well his agents would use their new information. Predictably enough, they used it well, and were much smarter the second time through. The average agent took 34.3 steps to find the exit the first time, and just 12.8 steps to find it the second. The key to the experiment, though, was this: Johnson took the results of all the trips through the maze and used them to calculate what he called the group's "collective solution." He figured out what a majority of the group did at each node of the maze, and then plotted a path through the maze based on the majority's decisions. (If more people turned left than right at a given node, that was the direction he assumed the group took. Tie votes were broken randomly.) The group's path was just nine steps long, which was not only shorter than the path of the average individual (12.8 steps), but as short as the path that even the smartest individual had been able to come up with. It was also as good an answer as you could find. There was no way to get through the maze in fewer than nine steps, so the group had discovered the optimal solution. The obvious question that follows, though, is: The judgment of crowds may be good in laboratory settings and classrooms, but what happens in the real world?

At 11:38 am on January 28, 1986, the space shuttle Challenger lifted off from its launch pad at Cape Canaveral. Seventy-four seconds later, it was ten miles high and rising. Then it blew up. The launch was televised, so news of the accident spread quickly. Eight minutes after the explosion, the first story hit the Dow Jones News Wire. The stock market did not pause to mourn. Within minutes, investors started dumping the stocks of the four major contractors who had participated in the Challenger launch: Rockwell International, which built the shuttle and its main engines; Lockheed, which managed ground support; Martin Marietta, which manufactured the ship's external

fuel tank; and Morton Thiokol, which built the solid-fuel booster rocket. Twenty-one minutes after the explosion, Lockheed's stock was down 5 percent, Martin Marietta's was down 3 percent, and Rockwell was down 6 percent. Morton Thiokol's stock was hit hardest of all. As the finance professors Michael T. Maloney and J. Harold Mulherin report in their fascinating study of the market's reaction to the Challenger disaster, so many investors were trying to sell Thiokol stock and so few people were interested in buying it that a trading halt was called almost immediately. When the stock started trading again, almost an hour after the explosion, it was down 6 percent. By the end of the day, its decline had almost doubled, so that at market close, Thiokol's stock was down nearly 12 percent. By contrast, the stocks of the three other firms started to creep back up, and by the end of the day their value had fallen only around 3 percent. What this means is that the stock market had, almost immediately, labeled Morton Thiokol as the company that was responsible for the Challenger disaster. The stock market is, at least in theory, a machine for calculating the present value of all

...