Viktor Mayer-Schönberger

Best-Selling Author of Delete and Big Data and Expert on the Networked Economy

Big Data: A Revolution That Will Change How We Live, Work, & Think. In his best-selling book, *Big Data*, Mayer-Schönberger tackles what big data is, how it will change our lives, and what we can do to protect ourselves from its hazards. "Big data" refers to our burgeoning ability to crunch vast collections of information, analyze it instantly, and draw from it sometimes profoundly surprising conclusions. Data's value has changed; it used to be that organizations collected data for a specific purpose, gathering as little as necessary because it was so expensive. Now affordable and easily analyzed, data can be collected without a specific goal and is leading organizations to surprising insights and advances. In this presentation, Mayer-Schönberger argues that big data analytics are revolutionizing the way people see and process the world—and each other. A revolution on par with the Internet, it changes the way we think about business, health, politics, education, and innovation. He explains why big data is so powerful (it is more effective than random data sampling) and how it also poses fresh threats, from the inevitable end of privacy as we know it to the prospect of being penalized for things we haven't even done yet. In a talk about the next big thing, Mayer-Schönberger helps audiences understand what they can expect from the vast amounts of information we gather and develop a data strategy for their organizations.

Information Privacy: Memory & Forgetting In The Digital Age. An advocate of the right to be 'forgotten' in the form of expiration dates on personal information, Mayer-Schönberger looks at the surprising phenomenon of perfect remembering in the digital age and reveals the importance of the human capacity to forget. While digital technology empowers people as never before, the perfect record it creates holds unforeseen consequences. In this talk, Mayer-Schönberger explains why information privacy rights and other fixes cannot help us and proposes an ingeniously simple solution—expiration dates on information—that may. He also explains how big data can help protect privacy in this increasingly digital age, as it can be used to identify and analyzing trends without accessing a person's sensitive identifying information.

Cyber Security: Strategies For The Networked World. An expert on the role of data information in the networked economy, Mayer-Schönberger looks at strategies organizations and individuals can employ to protect themselves from cyber threats, where most vulnerabilities lie, and how this issue will affect relationships between individuals, organizations, and nations in the years to come.

Innovation Through Information Flows. The vast amounts of data that we are able to crunch each day leads to often surprising conclusions and insights. Mayer-Schönberger helps organizations see how they can look at patterns in big data to innovate more mindfully and develop the products, behaviors, and services of the future. Through insight gleaned from this newly accessible information, organizations can transform themselves and their operations.

INDUSTRY CUSTOMIZATION:

Marketing/Direct Marketing. Big data is a quintessential tool for marketers. Until recently, capturing data was time consuming and costly, and so we collected only as little as possible. In the age of big data this changes. Vastly more data is being captured and can be analyzed almost in real time. This enables us to look at seemingly small changes that may make a huge difference. For instance, Google tested over 40 shades of blue to find the best border color for its search screen, using hundreds of millions of data points. The winning color, identified by big data

analysis, was only slightly different than the one a human expert has selected. But choosing the big data result rather than the human suggestion brought Google many, many millions of extra revenue. This is the essence of big data marketing: it is not the naked consumer; it is vastly improved predictions on how to sync marketing messages with consumer preferences to extract value.

Healthcare. Big data will transform health care. Now, most of research and treatment is based on limited data based on the "average patient." With big data, we can personalize healthcare and provide the optimal treatment to an individual by using the optimal drug and dosage for his genetic code and body metabolism. Through individualized health monitoring we can identify illnesses earlier and intervene faster and at earlier stages. Big data analysis helps medical researchers unlock much of the hidden value in the medical data we collect but so far fail to understand. For instance, it took a global effort, billions of dollars and 10 years to sequence the first human genome. Today, sequencing three billion base pairs can be done in a few days by one facility, and this genetic data avalanche is just the beginning. As we combine more data health sets through big data analysis, our understanding of the human body will be transformed—and so will be our ability to provide health care. Yet to achieve big data's full potential, we also must address important ethical dilemmas.

Financial Services. Almost all financial services are based on an element of prediction—whether a loan will be repaid, a stock price will increase, an insurance policy will have to be paid out. In the age of small data, these predictions were based on complex models of the world that often turned out to be wrong. In the 1990's, the international financial system almost crashed because of a faulty mathematical model. With big data we now have a powerful alternative available; we can predict much better using massive amounts of data and statistical inferences. Lenders and insurance companies employing big data analysis will enjoy a huge competitive advantage over conventional players. New products and services can emerge that we would never have thought of. For instance, the FICO score indicating a person's financial health is also a predictor for whether the person takes her medication on time—a vital insight for healthcare providers. This opens up new revenue stream for financial services companies, as well.

Education. Education can greatly benefit from big data analysis at nearly all levels. For example, by analyzing the rich data that gets captured through electronic books and online courses for the first time in history, authors will know what works (and what does not) in their textbooks, teachers will understand which of their problem sets raise questions with the most students, and schools will learn what teaching materials to choose to optimize the educational experience of their pupils. We have long tried to measure quality in education, but the dearth of relevant data made it challenging. With big data collection, our analysis becomes easier and cheaper and offers powerful new insights, improving our decision-making and fostering innovation.