

## Breaking Down Big Data

By Elizabeth Fu



Big Data at Work:  
Dispelling the Myths,  
Uncovering the  
Opportunities

Thomas H. Davenport

Harvard Business  
Review Press

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Our increasing ability to collect more and more information has popularized the term “big data”—to the point that it has become a catchall that simply means “data.” But the words still have meaning. According to Thomas Davenport, “Big data refers to data that is too big to fit on a single server, too unstructured to fit into a row-and column database, or too continuously flowing to fit into a static data warehouse.” The key attribute, he contends, is the lack of structure, presenting new challenges and opportunities.

Davenport begins *Big Data at Work* by admitting his initial skepticism about the concept, nearly dismissing it as hype. After extensive research, however, he identified differences between big data and conventional analytics. The book sets out to explain some of these key differences and to guide decision makers in making effective decisions about big data and its use.

### OVERACHIEVERS, UNDERACHIEVERS, AND THE DISADVANTAGED

The early chapters of the book provide a general overview of big data and its importance, moving on to a description of ways a typical business trip can be transformed through greater analytical processing of information. In Davenport’s view, “Big data is going to reshape a lot of different businesses and

industries,” but some industries are better suited than others. “Overachievers” like consumer products, insurance, online, and credit card industries are in a better position because they continually collect and actively analyze large amounts of data. Meanwhile, “underachievers” may have had more data, but they did not follow through with analyzing information that would have benefitted them or their customers. Lastly, “data disadvantaged” industries simply did not have the data to analyze, or their data are poorly structured.

### DEVELOPING A STRATEGY

After helping readers identify where their organizations may fit on the “big data” continuum, Davenport guides readers into developing a big data strategy. He uses examples from various companies to address some of the common business objectives — reducing costs, saving time, providing new offerings, and supporting internal business decisions — that businesses seek to achieve by using big data. Guiding readers in developing such strategies, he walks them through the requirements of the big data analysis discovery phase, learning what information may be available and how it can be beneficial, to the production stage, when the organization applies what it has learned.

The discovery and production stages require curiosity and human effort.

Davenport devotes the entirety of Chapter 4 to the human factor, discussing issues related to skills, recruitment, and retention. This emphasis is well-founded, as personnel is one of the most challenging areas for organizations dedicated to big data initiatives. The author points to employer surveys noting that the ability to effectively communicate results to decision makers is the most sought-after skill, superseding technical and analytical skills.

### COMMUNICATION AND LESSONS LEARNED

Employing his own ability to communicate technical terms to decision makers, Davenport breaks down the jargon associated with managing big data by clearly defining common technology infrastructure and analytical approaches. He then turns to more

general requirements for succeeding with big data — beyond technology. Much of the discussion focuses on his DELTA (data, enterprise, leadership, targets, and analysts) model as a way to build an organization’s analytical abilities. Davenport uses this chapter to reinforce the factors that create a productive culture for big data, describing how to embed big data in business processes as a way to create greater efficiency and effectiveness.

To round out the book, the final two chapters offer interesting case studies of lessons learned from recognizable start-ups and online firms such as LinkedIn and large companies such as UPS and United Healthcare. These case studies offer insights into approaches and practices that organizations might want to adopt as well as warnings

against tried practices, such as not sharing data and collecting data for the sake of collecting data.

### CONCLUSIONS

*Big Data at Work* dissects the key terminologies and the differences between “big data” and conventional analytics, all in a framework oriented for decision makers. Keen to make this book a resource that helps readers make effective decisions about big data, Davenport concludes each chapter with action-oriented questions, and he provides a big data readiness assessment survey organizations determine their readiness for big data initiatives. |

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