

DATA VISUALIZATION,
BIG DATA, AND THE
QUEST FOR BETTER DECISIONS

PHIL SIMON

Award-Winning Author of THE AGE OF THE PLATFORM

WILEY

ADDITIONAL PRAISE FOR THE VISUAL ORGANIZATION: DATA VISUALIZATION, BIG DATA, AND THE QUEST FOR BETTER DECISIONS

"In Too Big to Ignore, Phil Simon introduced us to the rapidly emerging world of Big Data. In this book, he tackles how we need to see, handle, and present this mountain of information, one unlike the old, familiar, transaction data that business people know quite well. *The Visual Organization* shines a much-needed light on how businesses are using contemporary data visualization tools."

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THE VISUAL ORGANIZATION

DATA VISUALIZATION, BIG DATA, AND THE QUEST FOR BETTER DECISIONS

Phil Simon

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TO MY <u>OTHER</u> FAVORITE W.W.

IT'S AN HONOUR WORKING WITH YOU.

FONDLY,

G.B.

A good sketch is better than a long speech. Quote often attributed to Napoleon Bonaparte

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PREFACE: A TALE OF TWO IPOS

Every word or concept, clear as it may seem to be, has only a limited range of applicability.

-Werner Heisenberg

Christian Chabot had to be at least a little nervous when he woke up in Manhattan on the morning of May 17, 2013. More than a decade's worth of work would be coming to fruition in only a few hours. In 2003, Chabot—along with Chris Stolte and Pat Hanrahan—founded a little datavisualization company by the name of Tableau Software. (Tableau had started in 1996 as a research project at Stanford University funded by the U.S. Department of Defense.) Chabot served as the company's CEO, a position that he still holds today. At 9:30 a.m. EST on that May morning, Tableau would go public on the New York Stock Exchange with the apropos stock symbol of \$DATA. Adding to the day's tension, Chabot and his team would be ringing the opening bell to commence the day's trading.

Now, under any circumstances, any company founder/CEO would be anxious about such a historic occasion. Chabot, however, was probably more restless than most in his position. Tableau's public launch was taking place in an environment best described as ominous. This initial public offering (IPO) was by no means a slam-dunk. To Chabot, the halcyon days of the dot-com era must have seemed like a million years ago. And, more recently, May 17, 2013, was almost exactly a year to the day after Facebook went public

in arguably the most botched IPO in U.S. history. It was a day that would live in infamy.

Facebook was originally scheduled to begin trading on Nasdaq at 11:00 a.m. EST on May 18, 2012. In short, all did not go as planned. Trading was delayed for half an hour, a veritable lifetime on Wall Street. Amazingly, some investors who thought they had bought \$FB shares didn't know for hours whether their transactions were actually executed. Aside from investor consternation, as Samantha Murphy wrote on Mashable, "The IPO caused a series of issues for finance sites, including Nasdaq.com and etrade.com." 1

That was a bit of an understatement.

Once trading finally began, things continued to spiral downward for Mark Zuckerberg's company. Originally priced at \$42 per share, \$FB quickly lost one-third of its value during that fateful day. The Securities and Exchange Commission investigated the glitches, ultimately fining Nasdaq \$10 million. Lawsuits were soon filed. Many early Facebook investors like Peter Thiel sold virtually all their shares as soon as they legally could—and looked shrewd for doing so. At one point in 2012, the stock slid under \$20 per share, and only in August 2013 did Facebook rise above its IPO price. As of this writing, investor sentiment finally seems to have shifted.

The Facebook IPO debacle—and resulting media frenzy—reverberated throughout the financial markets in mid-2012 and well into 2013. Its effects were felt far beyond the offices of Mark Zuckerberg, COO Sheryl Sandberg, rank-and-file employees, and investors. The Facebook IPO allegedly deterred many a company from listing on the NYSE and Nasdaq. Generally speaking, Wall Street analysts believed that the fiasco poisoned the short-term IPO well for everyone, especially technology companies. In the aftermath of the Facebook IPO, many high-profile

companies, including Twitter,⁴ reportedly adjusted their own plans for going public. Of course, there were a few exceptions. Enterprise software companies Workday and Jive Software bravely went public in October and December of 2012, respectively. Their stock prices have held up relatively well after their IPOs, as did Big Data play Splunk.

APPLES AND COCONUTS

On many levels, Tableau Software is the anti-Facebook. Yes, both companies rely upon cutting-edge technology to a large extent, but that's just about where the similarities end. In many ways, the two are apples and coconuts, and no intelligent investor would ever confuse the two.

Facebook is a consumer company based in Silicon Valley with a world-famous CEO. Tableau is an enterprise technology company based in Seattle, Washington. Compared to Zuckerberg, relatively few people would recognize Tableau's CEO on the street. Tableau doesn't sport anywhere near 1.2 billion users. Nor do its eponymous products seem terribly sexy to John Q. Public. In fact, most people would probably consider them a bit drab. At a high level, Tableau's offerings help people and organizations visualize data. This data need not be transactional, structured, and internal to an enterprise. Rather, Tableau can handle data from a wide range of sources, including proprietary relational databases, enterprise data warehouses and cubes, open datasets, spreadsheets, and more. Tableau's products "look" at data and allow users to easily create dashboards and highly interactive data visualizations. With a few clicks, users can publish and share them.⁵

DAY ONE