

BRUCE SCHNEIER, DATA AND GOLIATH: THE HIDDEN BATTLES TO COLLECT YOUR DATA AND CONTROL YOUR WORLD (2015).

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Data and Goliath: The Hidden Battles to Collect Your Data and Control Your World

Unfortunately, as a society we tend to focus on only one threat at a time and minimize others. Even worse, we tend to focus on rare and spectacular threats and ignore the more frequent and pedestrian ones. So we fear flying more than driving, even though to former is much safer. Or we fear terrorists more than the police, even though in the US you're nine times more likely to be killed by a police officer than a terrorist.¹

Introduction

Bruce Schneier's *Data and Goliath: The Hidden Battles to Collect Your Data and Control Your World* gives the reader eye-opening insight into the world of modern surveillance. Schneier is attempting to teach reader's to be mindful of the information they are putting out into the world. As Schneier notes, in today's world, it is virtually impossible to not leave some sort of trace of your internet activity. Schneier writes:

Today's technology gives governments and corporations robust capabilities for mass surveillance. Mass surveillance is dangerous. It enables discrimination based on almost any criteria: race, religion, class, political beliefs. It is being used to control what we see, what we can do, and, ultimately, what we say.²

¹ Bruce Schneier, DATA AND GOLIATH: THE HIDDEN BATTLES TO COLLECT YOUR DATA AND CONTROL YOUR WORLD (2015).

² See *id.* at 5.

Although technology has all but taken over our lives, Schneier provides his readers with ways to attempt to avoid leaving a trail. He explains that although he personally tries not to be surveilled, much of it happens automatically, because he interacts with others, and they are being monitored.³

About the Author

Bruce Schneier has written 13 books in addition to hundreds of articles, essays and academic papers.⁴ Schneier, the son of a Brooklyn Supreme Court Judge, grew up in Flatbush, Brooklyn.⁵ He attended University of Rochester, earning a degree in Physics.⁶ Schneier then went on to obtain a Master's degree in computer science from American University.⁷

Schneier's first, and arguably most notable work, *Applied Cryptography*, published in 1966, explains how cryptography algorithms work and how programmers use cryptography to maintain the privacy of computer data.⁸ This book has been described as "the first-ever comprehensive guide to the practice of cryptology."⁹ In 1999, after leaving behind the world of cryptography, Schneier co-founded a company called Counterplane Internet Security, which patrols computer networks and helps companies and governments keep their secrets out of the public.¹⁰ Schneier authors two newsletters, "Crypto-Gram" and "Schneier on Security" which are read by more than 250,000 people.¹¹ He is a lecturer of Public Policy at the Harvard Kennedy School as is a fellow at the Berkman Klein Center for Internet and Security at Harvard University.¹²

³ See *id.* at 36.

⁴ *About Bruce Schneier*, SCHNEIER ON SECURITY, archived at <https://perma.cc/25B9-M8YH>.

⁵ Samuel Newhouse, "Schneier on Security," *A Judge's Son Builds a Reputation of Cryptic Fame*, BROOKLYN DAILY EAGLE (February 9, 2009).

⁶ See *id.*

⁷ Charles C. Mann, *Homeland Insecurity*, THE ATLANTIC (September 2002).

⁸ See *id.*

⁹ See Newhouse, *supra* note 5.

¹⁰ See Mann, *supra* note 7.

¹¹ See *About Bruce Schneier*, *supra* note 2.

¹² See *id.*

About *Data and Goliath*

Data and Goliath is an in-depth look at how much of our daily lives are being monitored, mostly without anyone noticing. Further, it explains that we are willing to give up some security for the convenience of using technology, and the fact that most of the time we are not even aware that surveillance is happening.

The book is separated into three parts. Part I is titled “The World We’re Creating.” This section focuses on the ways in which people are being surveilled, the types of data that is being collected, and by whom. Schneier explains that though all the data collected is not used, it is easier for companies to save everything on a person, rather than figuring out which pieces of data to save.¹³ Chapter 5 is especially interesting because Schneier delves into the American government’s forms of surveillance, and focuses on the NSA and Edward Snowden. This section is extremely eye opening because Schneier explains how the government is able to collect information about citizens in a completely legal manner. He further argues that even though we do not know much about other country’s government surveillance, we should not assume that it is not happening.¹⁴

Part II is titled “What’s At Stake.” This section, comprised of five chapters, focuses on the costs of government surveillance. Schneier explains that not only is it financially expensive, it also imposes a large cost on society, both domestically and internationally. The biggest cost of government surveillance, in Schneier’s view, is our liberty. In chapter 9, Schneier explains the three ways that government surveillance is costing US companies: “people fleeing US cloud

¹³ See Schneier, *supra* note 1.

¹⁴ See *Id.*

providers, people not buying US computer and networking equipment, and people not trusting US companies.¹⁵

Part III is titled “What To Do About It,” and this section’s general focus is how people should handle all of this surveillance and data collection. Schneier begins Chapter 12 asserting that “[t]he harms from mass surveillance are many, and the costs to individuals and society as a whole disproportionately outweigh the benefits. We can and must do something to rein it in.”¹⁶ He additionally discusses the debate of “security versus privacy,” and argues that this is a false tradeoff. Schneier suggests that “our goal shouldn’t be to find an acceptable trade-off between security and privacy, because we can and should maintain both together.”¹⁷ In Chapter 15, Schneier suggests ways in which people can defend against surveillance, namely: avoid surveillance, black surveillance, distort surveillance and break surveillance. Schneier further asserts that there is strength in numbers, and that if the outcry against government and corporate surveillance grows, they will have to respond.

Analysis of Data and Goliath

Bruce Schneier is an expert in his field, which becomes clear to the reader throughout the book. Through his expertise and extensive background in the field of data security, Schneier uses *Data and Goliath* to educate his readers on an all important topic. Schneier takes a somewhat weary approach to the topic of everyday surveillance, and even explains certain ways in which he avoids sharing information. He explains that he never posts to Facebook or friends anyone on the site, he tries to never search anything on Google, and he does not use Gmail. This

¹⁵ See Schneier, *supra* note 1 at 143.

¹⁶ See Schneier, *supra* note 1 at 181.

¹⁷ See Schneier, *supra* note 1 at 183.

was especially interesting to me, especially coming from someone who knows so much about this area and clearly does not feel comfortable with sharing personal information.

Prior to reading *Data and Goliath*, I was concerned it may be too technical and filled with unascertainable data to understand. Bruce Schneier takes an extremely educated, but easy to understand, approach to the topic. Even when he is discussing different types of data or surveillance, he explains it in a way that any reader could comprehend. Additionally, within each chapter the content is broken up into sub-sections, which makes the topics flow more easily and is a tool to help the reader navigate the text. Schneier makes the topic of data and surveillance relatable to everyone by explaining how it really does affect our individual lives right from the start of the book. The introduction begins by explaining how our cell phones, which virtually everyone owns in today's world, acts as a surveillance mechanism without us even noticing. This, along with his personal anecdotes about his experience in the field, make for an enjoyable and relatable read.

Evaluation

Data and Goliath is a valuable contribution to society as a whole, not just the specific field of data and surveillance. Reading this book would provide valuable information to anyone. Every one of us has a cell phone, likely a smart phone, and uses some form of social media. This online presence, as this book explains, is not something to take lightly and people should use every protection they can to protect their privacy.

The fact that the author is so knowledgeable on this topic definitely contributes to the effect of the book. Schneier's entire career has been dedicated to the study of security and data collection, and it shows in his work. Schneier's goal of writing this book, it seems, was to inform his readers of information regarding their private information that they may not realize.

This goal, I believe, was realized. The use of examples which we can all relate to is something that the author does to grab the reader's attention and keep them interested. Further, he provides suggestions on how we can attempt to protect ourselves, while also explaining that some level of surveillance is necessary, and unavoidable, in today's world.

Conclusion

Overall, I thoroughly enjoyed reading this book. I would recommend this book to anyone, because it can provide extremely valuable information regarding technology. I particularly think this book would be helpful to the younger generations who use technology the most, and are less weary about the implications of sharing personal information for anyone to see.