Why not join [Julian Assange] in paying your dues, take risks greater than you can handle, ride not his bandwagon but build and drive your own, welcoming the ridicule, praise and condemnation. If as persistent, courageous and lucky as he you might just become rich and famous as reward for being admirable. Or you might be an utter failure, but better that than middling.¹

WikiLeaks.org is one of the most famous, and infamous, websites since the advent of the Internet. But the page, and its equally notorious founder Julian Assange, can trace its roots all the way back to the Pentagon Papers scandal of the 1970s and the nascent Internet, Usenet. In telling Assange and WikiLeaks’ story, Andy Greenberg, a staff writer at Forbes Magazine, reveals the hidden underbelly of the Internet that few know of and even fewer understand. Greenberg seeks not only to inform the world on how secret leaking began, but also to leak the secrets of the secret leakers themselves.

The book opens with Greenberg interviewing the enigmatic founder of WikiLeaks in 2010, at the height of Assange’s, and WikiLeaks’, power. They discuss the pending release of a large packet of information, termed a megaleak, involving a major financial corporation, though Assange stops before naming the target of the planned megaleak.² Greenberg introduces the

¹ ANDY GREENBERG, This Machine Kills Secrets: How WikiLeakers, CypherPunks, and Hacktivists Aim to Free the World’s Information, 322 (2012) (quoting John Young in a post responding to an article on WikiLeaks on The Economist’s website).
² The megaleak on the large financial institution never happened. Various reasons for the failed megaleak are hinted at throughout the book and it is ultimately for the reader to decide which version of the truth they believe.
ripple effect from the Cablegate\textsuperscript{3} scandal, relating it to the upheavals in the Middle East, the Iraq War, and the continuing war in Afghanistan, as well as the end result of all the leaking: WikiLeaks on life support. Greenberg’s introduction states the purpose of the book quite succinctly: to trace the perfect storm of history, cryptography, and secret leaking that would lead to the creation of WikiLeaks, and how the same forces are aligning to create the next wave of digital secret leakers.

Without giving away too much of the story, which reads at times more like a Dan Brown novel than an actual depiction of real events, Greenberg traces the intertwining histories and advancements in secret leaking and cryptography as described by the individuals who lived it. With interviews from Daniel Ellsberg (the famous leaker behind the Pentagon Papers), Julian Assange, Bradley Manning (the leaker behind Cablegate and WikiLeaks military releases), Jacob Applebaum (hacker and Tor developer involved with WikiLeaks), Peiter “Mudge” Zatko (former hacker who now heads the cyber-security division at the Pentagon), and Aaron Barr (former chief executive of HBGary Federal who was infamously hacked by the hacker group Anonymous), and numerous others, Greenberg fills in the spaces between the ones and zeros that make up the code which created WikiLeaks, as well as its inevitable demise.

Chapter 1, \textit{The Whistleblowers}, traces the dual histories of two of the most infamous secret leakers in American history: Dr. Daniel Ellsberg and Pvt. Bradley Manning. Greenberg tells the story of Ellsberg in a manner that depicts the government researcher in a light that makes him look simultaneously pitiable and courageous. He used then-state-of-the-art technology, the copy machine, to create packets of information he leaked to government officials and news media outlets, all over the course of a year and with the aid of his children. Ellsberg’s

\textsuperscript{3} Cablegate is the term used to refer to the megaleak of U.S. State Department Cables leaked by WikiLeaks in early 2010. In one leak, WikiLeaks released 251,000 secret documents relating to every aspect of America’s diplomatic missions and involvement in foreign affairs.
race to disclosed is told side by side with the story of Bradley Manning, the Army private with access to information the likes of which will never be released again, and whose need to discuss the enormity of his security breach ultimately lead to his arrest by government officials. Greenberg doesn’t skirt the reality that both men broke scores of laws to leak the information they felt the public had a right to know, but neither does he condemn either their methods or their motives. Rather, he lays out the understated premise of the book that where there are secrets, there are bound to be people who seek to reveal them. But while both individuals greatly contributed to the history of secret leaking, and the subsequent success of WikiLeaks, Greenberg’s focus for the chapter is the comparative ease with which each leaker gathered and copied data, arriving at one inevitable conclusion: the scale of a leak is directly related to the advancement of technology at the time the leak occurred. And therein lays the rub, because the greater and more advanced the technology, the easier it is for leakers to leak.

Julian Assange and his contribution to the world of cryptography and secret leaking are traced and described throughout the book, but the story of his eventual rise to power begins in Chapter Three: The CypherPunks. Greenberg uses the chapter to humanize Assange so that maybe, just maybe, the reader will understand the inner forces driving the mysterious WikiLeaks creator. The chapter begins with Assange at the University of Melbourne in Australia, where he reveals that Assange got a late start in formal education but levied it into local notoriety through a series of seemingly calculated moves designed both test his theories and garner support from fellow students. Greenberg goes on to tell the story of Assange’s itinerant childhood, obsession with computers, and eventual run-in with local authorities due to early hacking activities. Greenberg tells Assange’s early history in such a manner that it leads the reader to conclude for
him or herself that WikiLeaks’ creation was practically fated from the moment Assange got his hands on his first computer: a Commodore 64.

Jacob Applebaum is introduced to the readers in Chapter Four: *The Onion Routers*, where Greenberg traces the history and necessity of Tor, a network of routers which allow information to travel between writers and recipients on an anonymous network of nodes. As one of the developers of Tor and a presumed representative of WikiLeaks, Applebaum presents an interesting character in Greenberg’s work. His history is spastic and itinerant, just like that of Assange, but where Assange’s history lead him to want to disclose the world’s secrets, Applebaum’s has led him to fight for Internet freedom. Greenberg artfully relates how Applebaum’s numerous exploits have landed him in the unenviable position of being under the constant threat of indictment by the U.S. Government for his involvement with WikiLeaks and other projects. In the telling, Applebaum is made to appear as part hactivist, part lawbreaker, and part privacy evangelist, making him one of the book’s most memorable characters.

Peiter “Mudge” Zatko is a spook of a different color. In Chapter Five, *The Plumbers*, Greenberg introduces us to Mudge, a gray-hat hacker turned government project head who is trying to design a system to detect leakers and prevent the trouble they cause. But unlike other systems which try to prevent hackers and leakers from accessing the system from the get-go, Mudge works from the assumption that the leakers and hackers are already in the system. His

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4 Tor is an abbreviation for “the onion router,” which is how Tor functions. Packets of information are coded in layers of encryption, which are peeled away, just like layers of an onion, to reveal the packet’s next destination on the router’s service. The nodes which decrypt the layers only can only see the information within the packet and the decrypted address where the packet is to be sent next. At each stop the encrypted packet only reveals where it is to be sent next so that no one node knows where the packet originated or where it will eventually end. This allows for anonymity at least as to sender and receiver, though the contents of the packet may be syphoned off at each node because the contents are rarely encrypted. Tor is a volunteer network of Hidden Service networks and was originally designed by the Naval Research Laboratory, the State Department, and the Defense Advanced Research Projects Agency (DARPA).

5 There are three “types” of hackers: black hat hackers who engage in illegal hacking activity with the intent of profiting or harming; white hat hackers who hack with the purpose of improving security and whose mantra is to do no harm to the entities into which they illegally hack; and gray hat hackers, who are some mixture of both.
goal is to use the Defense Advanced Research Projects Agency (DARPA) to fund a competition where private industry, working from Mudge’s assumption, design software to detect leakers and hackers already in the system and prevent their disclosure of secret information. In short, Mudge, a former hacker, is using his knowledge and know how to design a system to prevent people like him from stealing secrets. But Mudge is more than a former hacker wonk, he is the cat to Julian Assange’s mouse, and Assange and every other would-be leaker now knows it. Mudge may only play a minor role in Greenberg’s greater tale about digital secret spillers, but his role is important as it reflects the mind set the government has come to embrace: if you can’t beat them, then change the rules of the game.

Aaron Barr is one of the more entertaining characters in Greenberg’s book, if only for the fact that Greenberg’s treatment of him makes the reader cheer on his eventual downfall at the hands of hacktivist group Anonymous. Barr, now a former government contractor, believed that social media was the way to break through Tor’s anonymous secret network and find out the identities of Anonymous group members and other hacktivists. But in his rush to show the government and his financial backers that his system of tracking through social media sites like Facebook and Twitter, he angered the very beast he was tracking, and in the end paid the ultimate online price: he was hacked. Barr’s tale is included in the same chapter as Mudge’s, but while the reader feel is lead to believe that Mudge stands on a moral high ground, they are also made to feel that Barr had it coming because he played fast and loose with privacy and liberty. By relating Mudge and Barr’s tales in the same chapter, Greenberg demonstrates that neither the secret leakers, like WikiLeaks and Manning, nor the government experts, like Mudge and Barr, have the can really claim moral high ground in the battle over secrets.
There are more characters, tales, tidbits, and history in the book than could be competently described in a review without giving away the whole plot. In the end Greenberg provides the reader with a fair account of how WikiLeaks rose to power and then came crashing down again like Icarus. He also recounts the personal triumphs and failures of all the individuals who had any part in the furthering the technology behind encryption and digital advancements in secret leaking. Greenberg’s telling of the Crypto Wars and WikiLeaks reads as easily as any spy novel around, but at the heart is the hard truth that every bit of this book is true, from the early days of crude secret leaking to the use of Tor’s Hidden Service providers to access the black markets of the Internet. The book travels around the world and back again to tell the tale of the hidden spaces in the code creating all things digital, and in the end, the reader is left to decide whether they choose to take up the mantel of hacktivist, secret leaker, or mere observer.

But one thing is certain by the end of the book: you will never look at the Internet the same way again.