SUMMARY PERMANENT RECORD

EDWARD SNOWDEN





Summary of «Permanent Record» by Edward Snowden

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Discover how Edward Snowden exposed the sophisticated top-secret program that pried into the private lives of every American citizen.



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Introduction

What's the greatest thing about living in a democracy? Many might say it's the citizen's freedom of privacy. But what happens when that freedom is violated? Some will go as far as whistleblowing to expose the secrets of organizations that are violating basic human rights. Edward Snowden is perhaps one of the most famous whistleblowers of all time after he revealed the secrets of the U.S. government's program that allowed them to spy on its citizens. Snowden revealed how the NSA collects each person's digital history including every text message, email, and phone call through a top-secret program called XKEYSCORE which acts as a search engine for the citizens of the world. Compelled to protect his country, Snowden believed he had no choice but to expose the horrors of XKEYSCORE, especially in a growing digital world. Read to find out how Snowden uncovered one of the government's greatest secrets and was able to master the art of stealing classified documents from one of the most secure organizations in the world.

The Lessons Learned from Video Games

Growing up in the 80s, Snowden was born at a time when technology was beginning to boom and video games were gaining popularity. Nowadays, video games are widely popular, so popular that video game addiction has become more commonplace among young teens and adults. But Snowden grew up in a time where video games were in their infancy, and it was during this time that Snowden learned some of the most valuable lessons of his life.

For instance, *Super Mario Bros. 1.0*, a side-scrolling game in which Mario can only move in one direction, taught Snowden that life moves forward. Because of the "invisible wall" behind Mario, he could never turn back and return to where he came from, similar to life, he moved in one direction. But *Super Mario Bros.* taught him more than just one lesson. Once when the cartridge for the game stopped loading, Snowden decided to follow his father's actions and try to fix the problem. So how was he going to do that? By cracking open the game console. He believed if he could get inside, then he could see exactly what was wrong and fix it. However, he failed and was left with a console that was in worse condition than before.

Shockingly, when his father arrived home to see a broken console, he wasn't mad. Instead, his father took the opportunity to teach Snowden an important lesson: Learn the ins and outs of a machine to prevent recurring errors from happening. Additionally, if the machine isn't as efficient as it can be, improve it! That day his father taught him each part of the machine and the role each of them played to make the console work. Not only did his father teach him how to fix the console, but he also taught him to rely on himself when something needed to be repaired.

To make the console work again, Snowden and his father made a trip to the lab where he worked at the Coast Guard base. It was there that Snowden's father gave him simple commands to make the computer output his name. At a young age, Snowden was introduced to computer coding which taught

him one of the most valuable lessons that would eventually lead him to work for the NSA. He learned that computers work because they are told what to do by people who know how to speak their language.

An Introduction to Hacking

Born in Elizabeth City, North Carolina, Snowden found himself moving up north to Crofton, Maryland, just before his ninth birthday. While he struggled to fit in at school, his parents were thriving at their new jobs. His mother began working at the NSA and his father was now working as a chief warrant officer in the Aeronautical Engineering Division at the Coast Guard Headquarters. Snowden wasn't sure what their new jobs entailed, not only because they were bound by law to secrecy, but also because their jobs were so specialized, it took a certain amount of knowledge to understand exactly what they did.

But soon Snowden's life changed the day his family bought their first desktop computer, a Compaq Presario 425. Purchased with the family military discount, the computer took up all of Snowden's time as he tried to learn the ins and outs and became fascinated by the various games, programs, and more importantly, the internet.

If you were around when the internet came along, you'll remember that the internet was nothing like it is today. With its constant hissing and buzzing, it took forever to connect or do anything productive. However, Snowden soon realized that he could be anyone he wanted through the power of the internet and began to experiment with forums and chat rooms. Through these chat rooms, Snowden learned how to build his own computer and pushed the boundaries of rebellion.

By his teen years, Snowden became sick of the rules that guided his life, so what did he do? Like most teenagers, he rebelled. Attending school was simply getting in the way of his time on the computer, so he searched for ways to do as little work as possible without failing his classes. This gave him time to focus on what was important to him: hacking. It didn't take long for him to learn the ins and outs of hacking, and before long, Snowden discovered a security weakness in the Los Alamos National Laboratory

website that allowed him to read classified documents. Discovering this breach in security took Snowden a mere thirty minutes.

He quickly worried about such documents being in the wrong hands and he checked the website daily hoping someone had discovered the security breach. He finally reached out to the IT department to explain what he found. After a few weeks, an IT employee finally called him back to let him know the problem had been fixed. That phone call led to a job offer, but Snowden was only a teenager, so the company asked that he reach out again when he turned eighteen.

But Snowden didn't limit himself to hacking only websites, he managed to hack traditional schooling after he developed mononucleosis in his sophomore year of high school. With four months out of school, Snowden would be unable to graduate on time. He couldn't bear the thought of spending even longer in school, so he found a way to beat the system. He applied to Anne Arundel Community College where he eventually got accepted and could attend classes twice a week. He wouldn't make up that missed year of school, he would just skip it. After two years of schooling, Snowden earned his General Education Development (GED) degree.

Snowden's Call To Protect His Country

At the age of 16, Snowden's hacking skills were becoming more and more developed and he eventually caught the attention of Mae, a woman who recruited him as a freelancer for her budding online business. At \$30/hour cash, Snowden worked with her from her townhouse on a Web-design business where he realized that if he wanted a future in IT, he needed more schooling. So he signed up for a Microsoft certification course and paid for it through loans.

Then, one fateful day in September, Snowden heard the news of the attack on the World Trade Center. Mae advised him to return home and be with his family that day, so Snowden began his drive home. On the way, he passed the NSA headquarters and watched the frenzied evacuation as the employees fled the building in fear and confusion. Seeing such a sight sparked a patriotic urge from Snowden to join the military. He felt a call to use his computer skills to protect America, but how? He didn't have a college degree and had no desire to earn one, so he enlisted in the Coast Guard.

After his testing, Snowden qualified for the 18 X-Ray program designed for soldiers with the highest physical and mental abilities who later become Special Forces sergeants. First, however, he had to attend basic training at Fort Benning, Georgia. Just a few months in, Snowden fractured his ankle and his military career came to a grinding halt. Now what? As he recovered on his mother's couch, he thought about his future. He knew that the only way he could serve his country is to use his computer skills. So he decided to attempt obtaining the hardest security clearance possible. TS/SCI, the clearance needed to work for the CIA and NSA. Obtaining such clearance would require an extensive background check, the government would interview his friends and family members and examine his internet history.

During this background check, government agents would see his recent activity on a website called HotOrNot.com where users rate other's pictures

and talk to strangers in attempts to score a date. It was on this dating site that Snowden met Lindsay Mills. They hit it off immediately and she even helped him prepare for his upcoming polygraph exam, one of the requirements for security clearance. At the age of 22, Snowden qualified for the TS/SCI while also falling madly in love with his girlfriend.

Snowden's First CIA Job

Snowden began his career by working with the University of Maryland as a security guard. While it wasn't the position he was hoping for, he knew this was a small step in the right direction for working his way up. The university worked with the NSA, but soon Snowden realized that if he wanted to truly serve his country, then he would be better off working for a private-sector company.

Soon Snowden was hired as a subcontractor working for COSMO where he was a systems administrator at CIA headquarters in Mclean, Virginia. The first stage of training involved becoming initiated into using some of the most secret technology the government possessed. He and his fellow recruits were sworn to secrecy, they were even shown a presentation about what happened to former contractors and agents who broke the seal of secrecy and had been punished for doing so. Now, new recruits are shown what happens to whistleblowers like himself who reveal secrets for the good of the public.

His role as the CIA's Directorate of Support meant that Snowden helped manage servers for the CIA's Washington-Metropolitan area, which meant he held the cryptographic keys that kept CIA secrets safe. The responsibility of secret-keeping was exhilarating and Snowden took pride in his new position where he sat twelve hours each night in a secure office ensuring that the servers functioned properly. It was during this job that Snowden realized he didn't want to be stuck in an office for the rest of his life, he wanted to get out and see the world.

So after nine months of working in the private sector, Snowden applied and was accepted to work a CIA tech job abroad. Before starting, Snowden had to go through training as a Technical Information Security Officer (TISO) for six months. TISOs are responsible for handling the technology behind any intelligence operation and are employed at every US embassy in the world. However, this training was anything but glamorous. Living in a

dilapidated, health-code violating motel, Snowden and his fellow students were tired of spending every hour of every day in such awful conditions. Throughout his training, Snowden took it upon himself to send emails to the school director and his superior, the Director of Field Service, to complain about the conditions and demand action be taken. Surprisingly, it worked! He and his classmates were soon moved to another training facility.

However, just a day or two after the move, Snowden was brought to the school's head office where the director of Field Service was waiting for him. Once there, he was reprimanded for his insubordination for breaking the chain of command; however, Snowden learned a valuable lesson that day: When it comes to the CIA, nothing is more important than following the chain of command. So what was his punishment? While Snowden volunteered to be stationed in the Middle East warzone, he was instead sent to Geneva in a cushy office position where his dreams of being a hero would be squashed.

Snowden Uncovers a Top-Secret Program By Accident

While working in Geneva, Snowden found himself in the middle of the US's transition to technology-based intelligence. During his stint, Snowden worked with CIA case officers to help them navigate new technology that collected information on their targets. He taught these officers how to mask themselves on the internet and remain anonymous online. Snowden enjoyed his job, but he had yet to realize the full potential of the technology he was working with.

In 2009, Snowden moved to Japan to work for the NSA at the Pacific Technical Center (PTC) at Yokota Air Base. When a colleague dropped out, Snowden was asked to attend a conference in Hong Kong and give a presentation on China's capability to track American assets. During his research, Snowden learned how the Chinese government tracks its own citizens; how they can see and hear everything they do. This worried Snowden and he wondered if America would follow suit and do the same, not just to their own citizens, but to the rest of the world.

This caused Snowden to do some more digging and he began reading unclassified reports on the President's Surveillance Program (PSP) after 9/11 which allowed the government to tap into phone calls without a warrant. The PSP report was released to the public, but when Snowden attempted to do some more research, he couldn't find anything.

Miraculously, the report wound up on his desk just a few months later. He realized the report had been marked as Exceptionally Controlled Information (ECI), meaning it was to remain confidential even to those with top security clearance. He received the report through a glitch in the system, but Snowden decided to take a peek anyway. Snowden expected to see similar reports that were released to the public, but he was shocked to find that this report was radically different.

The report detailed a program named STELLARWIND which was the NSA's most closely guarded secret. Since 2001, the program has been collecting communications through metadata. What's metadata? Simply put, metadata is the tags and markers that record everything done on your devices, as well as what your devices do by themselves. Metadata allows intelligence to know where you are at any moment, who you've been communicating with, and everything in your browser history. It can tell where you've been and even where you are headed to next. In other words, STELLARWIND was a massive surveillance program that enabled the US government to spy on its citizens at all times.

Keeping this knowledge a secret hurt Snowden and caused him to fall into depression. He couldn't do anything but simply watch as the government collected data from its citizens without their knowledge, creating a permanent record of all our habits and activities. The stress of keeping the knowledge a secret affected his health and he began to experience seizures on top of his already debilitating depression. He had no choice but to leave the work he once loved.

Snowden Takes the First Steps To Expose the Government's Secrets

To help recover from his illnesses, Snowden took an NSA position in Hawaii in hopes that being in paradise with Lindsay would help him decompress. While the position was a step-down, he didn't mind and decided to use his extra time to learn more about the NSA surveillance program. So Snowden stayed up to date on technology by checking NSA "reading boards" daily which served as a digital bulletin board for the NSA. These boards consisted of internal news blogs based on classified intelligence activities.

He needed to come up with a way to streamline his browsing and make it more efficient, so Snowden created a program called Heartbeat which compiled any new information and reports from these "reading boards" into a single newsfeed. It was through Heartbeat that Snowden obtained most of the documents that he would later share with journalists, including an order that allowed the NSA to collect metadata from companies like Verizon and AT&T. The order also included PRISM, which enabled the NSA to collect data from major companies like Google, Facebook, and Apple. Basically, once the NSA has malware on your computer, they have access to your entire digital life.

Snowden realized in 2012 that he couldn't just sit back and allow Americans to be taken advantage of. Smart devices were gaining popularity and Snowden knew how the government was lying to the public, making them feel safe when in reality, they were collecting data and spying on their citizens. The NSA was clearly violating the 4th Amendment of the Constitution, the right to privacy. The public needed to know. But he couldn't just simply expose these documents, he had to expose the entire system that produced it.

He realized he needed to take the story to the media, but he had to choose the right journalists as well as teach them exactly what the documents and the technical language meant. Snowden narrowed his focus to Laura Poitras and Glenn Greenwald. Poitras had previously worked on the NSA's TRAILBLAZER program, the predecessor of STELLARWIND. Greenwald, a civil liberties lawyer, had previously reported on the NSA's unclassified PSP report from 2009. To contact them, Snowden used encrypted emails from his home computer using various pseudonyms, disguising his location and protecting their private conversations.

The Discovery of XKEYSCORE

Once Snowden decided to expose the NSA's massive surveillance program, he encountered several problems. He was working with one of the world's most secure institutions so stealing their documents and sharing them would take some serious skill and planning. But Snowden, of course, had plans to leak the information while keeping his identity a secret.

First, Snowden used the Heartbeat program he created to access the documents he needed, that part was easy. However, Snowden knew that any move he made on his computers would be monitored by the NSA, so he came up with a plan that used old Dell PCs that were no longer in use at the office. By claiming that he was using "compatibility testing" to see if new technology would work on old computers, Snowden could easily transfer files onto these old PCs where he safely browsed and organized the documents.

From there, Snowden encrypted the data onto micro-SD cards, a process that could take up to eight hours. Then, he smuggled the cards out of the building by hiding them under the tiles of his Rubik's cube. He would then hide his nervousness as he walked past guards by playing with his Rubik's cube and eventually earned the nickname "Rubik's Cube guy" as he started to carry them around everywhere he went.

Once home, Snowden would copy the files onto his own hard drive, and then send the information to the journalists from his car where he could easily hack into a stranger's wifi. However, despite his efforts to remain anonymous, Snowden knew that if he tampered with the documents to obscure their origin, he would be hindering their credibility. In the end, he decided that the public good was more important than his personal safety and he sent the documents as originals.

Wanting to absorb as much information as possible before the leak, Snowden asked for a transfer so he could get his hands on a program called XKEYSCORE. The program functioned as a search engine that allowed NSA officials to access data collected through STELLARWIND. His transfer was accepted and he was flown to D.C. for training on how to use the program. During his training, Snowden discovered that XKEYSCORE was far more powerful than he anticipated. He learned that agents could simply type in a name or IP address and access a person's entire digital history. Some analysts were even spying on their spouses and loved ones through the program and this realization that they could spy on anyone at any time deeply disturbed him.

Snowden Shocks the World on June 6, 2013

In 2013, Snowden knew it was now or never. He was back in Hawaii when he began making preparations to expose the NSA. The worst part was keeping his secret from Lindsay who he wanted to protect, so he didn't tell her anything. Between March and May, Snowden began emptying his bank accounts, he erased and encrypted old computers, and he put his affairs in order to leave the United States forever. He finally fled the country while Lindsay was away on a weekend camping trip.

Snowden flew to Hong Kong where he met Laura Poitras and Glenn Greenwald to divulge the information and help them put together articles and videos that would reveal everything. On June 6, 2013, Greenwald's first story about the NSA appeared in The Guardian and disclosed information about the court order that allowed Verizon to collect customer data. The following day, stories on PRISM became released. As the stories were released, the government frantically tried to find the source of the leak and do damage control.

Just a few days later, Snowden came forward as the whistleblower and lawyers Robert Tibbo and Jonathan Man helped Snowden go into hiding in some of the poorest neighborhoods of Hong Kong. On June 17, the U.S. government charged Snowden under the Espionage Act and requested his extradition. At the same time, Hong Kong refused to allow him sanctuary within its borders and he had nowhere to go. With the help of his lawyers, Snowden applied for asylum in numerous countries but all his requests were denied.

His new goal was to flee to Ecuador, which had previously given asylum to WikiLeaks founder Julian Assange. With the help of Sarah Harrison, Snowden was to fly via Moscow, Caracas, and Havana to avoid detection by the U.S. However, on a layover in Moscow, Snowden was stopped by authorities once they discovered his passport had been canceled by the U.S. Department of State while he was in the air. He was stuck in Moscow.

Snowden spent 40 nights sleeping at the airport surrounded by journalists but was soon granted temporary asylum by the Russian government.

During this time, Lindsay was suffering as the FBI followed her and interrogated her throughout the investigations. While she was initially upset with Snowden for what he had done, she understood why he did it. She eventually packed up their house in Hawaii and headed for Moscow, where she now lives with Snowden. In the years since, Snowden has continued to defend our data and privacy. He works with the European Center for Constitutional and Human Rights and he and Lindsay have adjusted to their new life in Moscow and will soon celebrate their second wedding anniversary.

Final Summary

Snowden grew up in a time where technology and the internet allowed for anonymity and he was free to be whoever he wanted. It was during this time that Snowden learned the ins and outs of computer coding and language and worked to hack the systems that he disagreed with. After 9/11, Snowden felt a call to protect his country and knew his computer skills were the way he was going to do it. However, while working for the NSA, Snowden discovered a secret so great that he struggled to keep it a secret. Snowden had a duty to protect his country and the NSA was violating the citizen's rights to privacy and were spying on their every move. He decided he needed to use his hacking skills to expose the government's classified documents that allowed them to extract data that tracked our online activity. By leaking the documents, Snowden sacrificed his personal safety but in the end, he exposed the U.S. government's massive surveillance program and continues to fight for the world's rights to online privacy.



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