

## You learn a lot from **four decades in global cybersecurity**

**Neal O'Farrell is one of the longest serving security experts on the planet, 40 years and counting.**

His career began in the 1980s developing advanced encryption systems for governments, the military, and the financial sector and while still in his 20s he was awarded the first ever contract to encrypt Ireland's entire national ATM network.



***"When we asked the FBI if they could recommend a cybersecurity speaker, they unequivocally recommended Neal. Even if you can't get him in person, they said, have him just phone it in. He's that good."***

Principal, Wealth Management Firm, Sacramento California.

**Neal holds the slightly dubious distinction of being one of the first cybersecurity experts to be **targeted and blacklisted** by the US government because of his early work in encryption, and a year before the noted scientist and cryptographer **Phil Zimmerman** was very publicly targeted for the same reason.**

Since then, Neal has advised half a dozen governments, served on the Federal Communications Commission's Cybersecurity Roundtable, and spent a decade as head of the Identity Theft Council. He has trained law enforcement across the US, counselled thousands of victims of fraud and identity theft, and interviewed some of America's most notorious fraudsters.

His earliest work in encryption involved **developing secure telephone scramblers for the Irish government**, followed by work with Nokia to help incorporate security into their first generation of cellular phones. He later worked on the development of the first voice-based access control system for Britain's telephone banking system.

### **A DEEP BACKGROUND IN SECURITY**

In the 1980s, at the birth of the cybersecurity industry, Neal was helping governments, banks, and intelligence agencies protect their most sensitive communications. In the mid-1980s, after a government phone tapping scandal, he developed a telephone privacy system for the Irish government, and later went on to work with Nokia to incorporate privacy and security into their first generation of cell phones.

In 1988 Neal won the first contract to encrypt Ireland's entire national ATM network, the same year he installed the first two-factor authentication system in an Irish bank. And a year later he co-hosted with IBM one of Europe's first network security conferences.

That was the same year he started **the Intrepid project**, a government-supported program to develop a European rival for the NSA's Secure Telephone System (STU3), considered the world's most secure, secure telephone system. The result of the project was the launch of Milcode, widely considered the most secure secure telephone of its time. That project brought Neal into direct conflict with the NSA and into the Crypto Wars, and that story is chronicled in his upcoming book *The Man from Intrepid*.

Neal also developed Faxcode, the world's first fully encrypting fax machine, and resulted in his selection as the first Irish entrepreneur to be invited to participate in the Export to Japan study program hosted by the Japanese government.

A quarter of a century ago, in 2000, and just four weeks after moving from London to San Francisco, Neal was appointed the first ever Director of Education for a security company (ZoneAlarm, now Check Point). As editor of *The Zone*, he was responsible for teaching security to more than 3 million users in 120 countries.

That same year, Neal wrote a ground-breaking series of articles for SearchSecurity.com urging a greater focus on "the human perimeter" as a defense against all kinds of cyber threats. His article "Security Training: A Call To Arms," was selected by SearchSecurity.com as one of the Top 10 Executive Briefings of that year.

Neal was invited to co-Chair with FBI Director Louis Freeh the first "Cybercrime on Wall Street" conference hosted by the Institute for International Research (IIR) in 2002, the same year he launched Hackademia, a partnership with security publisher Syngress (now part of Elsevier) to turn their collection of Hack Proofing guides into online security training courses. Hackademia is now part of the University of Washington.

Neal also served as Technical Editor and contributor for one of the first in the Hack Proofing series, "Hack Proofing Your Wireless Network."

In 2002 Neal launched the first Think Security First, the nation's very first Cyber Secure City and a unique experiment to raise the security awareness of an entire city (Walnut Creek, CA, pop. 64,000). As part of that initiative, the entire city – residents, businesses, schools, even the Mayor, city council, and police department – participated in extensive security awareness

training. The program slogan was “Think Security First!”, a mantra that is even more important more than 20 years later.

Partners in the yearlong initiative included Microsoft, Cisco, McAfee, and AT&T, and received the endorsement of the US Chamber of Commerce, the Department of Homeland Security, and the International Information Systems Security Certification Consortium, Inc. (ISC)<sup>2</sup>.

As part of his commitment to bolster the cybersecurity workforce, Neal has been involved in numerous high school cybersecurity initiatives. He was a member of the National Initiative for Cybersecurity Education (NIST) K12 Committee, a member of the advisory board of the nation’s first Cybersecurity Apprenticeship Program, launched in California in 2016, and a member of the OC3 Education and Workforce Subcommittee, an initiative of the Ohio National Guard.

### **AWARD-WINNING IDENTITY THEFT EXPERT**

Neal was the first expert to train an entire police department in identity theft, more than 20 years ago in 2003, and that program was subsequently used by hundreds of police departments around the country.

He went on to lead **the Identity Theft Council**, an award-winning non-profit that has assisted thousands of victims of identity theft. Through his work with the Council, Neal helped to set new standards in the way victims of identity theft are treated and supported, and in how law enforcement is trained.

Neal has worked with hundreds of police departments, Neighborhood Watch groups and community action organizations, and took on complex cases referred to him by the FBI and U.S. Secret Service.

He has helped change identity protection laws, served as an expert witness in the prosecution of identity thieves, and produced **the first documentary to go inside the lives of professional identity thieves.**

In 2011 he was honored with the **2011 Editors Choice Award** from SC Magazine, one of the cybersecurity industry’s most prestigious awards. Previous winners include the NSA and SANS.

He was also the first recipient of the Eigen Award, presented at the headquarters of Wells Fargo by the Association of Certified Fraud Examiners.

### **TRUSTED ADVISOR**

Over his 40-year career Neal has worked with governments, the intelligence community, the financial community, Fortune 500 companies, thousands of small businesses and millions of end users and consumers.

As an advisor to the Federal Communications Commission's Cybersecurity Roundtable, he helped develop one of the first online security planning tools for small firms.

Neal was the only security expert invited to advise the Congressionally-mandated Stock Act panel in 2013, empaneled by Congress to study the security and privacy implications of greater financial transparency by members of Congress and senior federal employees.

As part of that study, over a period of six months Neal participated in in-depth interviews on national security and privacy issues with nearly sixty organizations including the Department of Defense, Department of Homeland Security, Department of Justice, the Office of National Counterintelligence, Office of the White House General Counsel, SEC, FTC, FBI and nearly twenty other executive branch agencies.

Neal has been quoted in numerous publications around the world including the New York Times, Forbes, Inc., the Wall St. Journal, the Huffington Post, CNN Money, BusinessWeek, USA Today, SmartMoney, CNET, Information Week, the National Law Journal, Today.com, NBC, CBS, CNBC, Fox Business, and the South China Morning Post.

### **SECURITY ADVOCATE**

Neal was a member of the Online Trust Alliance IoT working group, and has served as advisor to numerous security firms including ZoneAlarm (now Check Point), Surf Control (now Websense), Ntru Cryptosystems, Securify, and SiteLock, and identity protection firms like PrivacyMatters, EZ Shield, IdentityGuard, and Credit Sesame.

He was an advisor to blockchain startup Civic, one of the first startups to complete a successful Initial Coin Offering (ICO), and is currently an advisor to Adaptable Security, DropVault, Taliware, CyberTrust America, and a Fellow of the EP3 Foundation.

Neal's security programs have been used by hundreds of organizations including Autodesk, CoreLogic, Rodan and Fields, World Market, bebe Stores, Plaid, Voya, and more than 100 universities.

### **A PASSION FOR RESILIENCE**

Neal has helped thousands of victims get through the aftermath of cybercrimes and scams, which is why resilience is such a passion. As part of the NIST Global City Teams Challenge, he led a study into how future smart cities could help to improve the mental health of residents.

In 2020 Neal launched the PsyberResilience program to address the chronic stress and burnout impacting the cybersecurity community. He currently teaches cybersecurity teams at Fortune 500 firms how to

manage their stress, and in 2023 was the first expert to teach stress management as part of a 4-year cybersecurity degree program (Northern Kentucky University). And he's taught stress management techniques to audiences in more than 50 countries.

## **FUN AND PERSONAL**

- Neal was supposed to be a dressmaker and not a codemaker, and the third generation to take over a 100-year-old Irish weaving business whose clients included Coco Chanel, Yves St Laurent, the Duchess of Westminster, and the Queen of Siam.
- When Neal was 17 he ran away from home, hitchhiked across Europe, and ended up in Morocco.
- Neal's grand uncle Michael Farrell made Maureen O'Hara's first movie, in 1934.
- Neal's cousin Michelle Dockery played Lady Mary Crawley in the television series *Downton Abbey*.
- In the tradition of the Irish immigrant, Neal came to America by boat, sailing a yacht across the Atlantic in the middle of winter.