



Stephen Wilson is a leading researcher, analyst and innovator in privacy and security, and one of the world's most original thinkers in digital identity.

His privacy expertise comes out of highly creative research into the complex interplay of privacy and security, and is based on many years work in the sensitive sectors of healthcare and government. He has developed and patented unique Privacy Enhancing Technologies for mobiles and IoT, and pioneered new privacy engineering techniques.

Stephen writes: After a decade and a half in cyber security, I came to realise privacy and identity management are two sides of the same coin. IdM addresses what you need to know about someone to do business with them, and privacy management is about what you don't need to know! My privacy practice is based around this practical yet rigorous systems perspective.

Stephen is an active member of the international privacy community. He is a past member of the Australian Law Reform Commission's privacy reform technologies sub-committee. Over 2011-13 of he sat on the Privacy Committee of the ID Ecosystem Steering Group, implementing the US National Strategy for Trusted Identities in Cyberspace. He is currently a member of the program committee for the "European Integration and Democracy" series, and since 2016 has been the Privacy Track Chair for the Cloud Identity Summit.

See <http://lockstep.com.au/about/privacy> and <http://lockstep.com.au/blog/privacy>.

Selected privacy consulting engagements

- **A health sector peak body (confidential) 2016-now:** Privacy road map, and PIA for a new analytics engine to improve professional services for healthcare providers
- **Australia Post 2017-now:** Privacy consultant advising the new Digital iD program
- **Biometrics Institute (UK) 2015-now:** Conducted international feasibility study for a new privacy trust mark for biometrics systems; designed the self-assessment tool and PIA template; designed and now supervising the pilot program
- **Dept of Foreign Affairs & Trade 2016:** PIA of online passport application system
- **Digital Transformation Office 2016:** Designed and delivered a privacy engineering training for architects, developers and business analysts
- **Attorney Generals Department 2015-2016:** a series of early stage PIAs of the new Face Verification Service (FVS)
- **Major health insurer (US) 2015-2016:** developed a privacy strategy for the large-scale rollout of consumer biometrics
- **Conform Inc. (US) 2015-2016:** Acting Privacy Officer for this start-up building a pilot for the US National Strategy for Trusted Identities in Cyberspace (NSTIC)
- **Dept of Foreign Affairs & Trade 2015:** PIA of new passport application bulk scanning process and outsourced processing facility
- **AusIndustry 2015:** Early stage PIA of Single Business Service program
- **Department of Health Victoria 2014:** Multiple Privacy Impact Assessments (PIAs) of a new Cloud Computing solution for managing selected client data, and of a state-wide Web Transformation Project

- **Department of Finance 2014:** PIAs of five major federal government websites; amongst the first PIAs to be conducted under the new Australian Privacy Principles
- **Department of Industry 2014:** PIA of the federal government-to-business authentication broker system “VANguard”
- **ID Ecosystem Steering Group (US) 2012-13:** led the first privacy evaluation in NSTIC
- **Dept of Primary Industries Advanced Metering Infrastructure 2011:** PIA of the Victorian electricity smart meter program (one of the first major smart grid PIAs in the world); see <http://www.smartmeters.vic.gov.au/about-smart-meters/reports-and-consultations/lockstep-dpi-ami-pia-report>
- **Queensland Health 2010-13:** Developed a suite of privacy tools for multiple e-health projects; conducted PIAs for an Electronic Medical Records Viewer and for Integrated Electronic Health Records systems
- **NSW Dept of Education & Training 2013:** Designed and delivered a training seminar for educators and staff: *What do cyberspace and technology mean for privacy?*
- **Dept of Human Services Victoria 2009, 2011:** PIAs on the state-wide deployment of the Cerner Millennium clinical application, and a state-wide Master Patient Index
- **Vicroads 2009-10:** Major two stage PIA of the new consolidated registration and licensing platforms for three agencies
- **Department of Foreign Affairs & Trade Australian Passport Office 2010:** Early stage PIA of a new online passport application system
- **Australia Post 2008, 2009, 2012:** developed the foundation Trust & Privacy Strategy for a new digital mailbox platform; initial PIA; Privacy Engineering
- **Office of the Privacy Commissioner 2007:** designed and delivered a half day training course *Smartcard Technology for Privacy Policy Workers*.

Original research into privacy

- **“Big Privacy”:** I lead Constellation Research’s work on a new framework for managing privacy within Big Data activities. The work envisages new consent mechanisms, Privacy Policy formulations, and improving the understanding of data analysts of the consequences of their work. See <https://www.constellationr.com/research/big-privacy-rises-challenges-big-data>
- **“Privacy Engineering”:** I have long researched how privacy is impacted by IT practices. Lockstep’s privacy consulting is informed by ongoing investigations into multi-disciplined ways to build privacy in at the formative stages of IT projects. My privacy R&D has led to a *hybrid security-privacy Threat & Risk Assessment* and *Information Asset Inventory* (see publications below).
- **Smart technologies and Privacy:** a major focus of Lockstep is privacy enhancing properties of smart ID technologies, for anonymity, de-identification and fraud control (see publications below).

Academic privacy papers

- *Blending the practices of Privacy and Security to navigate Contemporary Data Protection Challenges*, in *European Integration and Democracy*, Svantesson & Kloza editors (in press)
- *Data protection: Big data held to privacy laws, too* Nature Vol 519, 414, 26 Mar 2015
- *Seeing privacy through the engineer’s eyes*, Privacy Law Bulletin, March 2015

- *The collision between Big Data and privacy law* Australian Journal of Telecommunications and the Digital Economy, Vol 2.3, Oct 2014
- *Facebook and Personal Information*, S. Wilson & A. Johnston, in Encyclopedia of Social Network Analysis and Mining, Rokne & Alhadj editors, 2014
- *Big Privacy: Rising to the challenge of Big Data* Computers, Freedom, and Privacy Conference 2014, Washington DC, 9 June 2014
- *Applying Information Privacy Norms to Re-Identification*, Harvard Law School Symposium on Law, Ethics & Science of Re-Identification Demonstrations, May 2013
- *Legal Limits to Data Re-Identification*, Science, Vol 339, 6120, 8 Feb 2013
- *Cyber law & e-authentication in Australia*, International Cyber Law Seminar, Bali, 2013
- *Privacy Compliance Risks for Facebook*, IEEE Technology and Society, V31.2 2012
- *A bigger threat to patient privacy when doctors use Facebook*, Journal of Medical Ethics, 20 Dec 2010
- *Anonymity & Pseudonymity in eResearch via smartcards and Public Key Infrastructure*, eResearch Australasia 2009, Sydney, 2009
- *An easily validated security model for e-voting based on anonymous public key certificates*, AusCERT2008 Conference Academic Stream, Gold Coast, 2008
- *A novel application of PKI smartcards to anonymise Health Identifiers* AusCERT2005 Security Conference Academic Stream, Gold Coast, 2005
- *Patient Privacy and Security – Not a zero sum game!* Wilson, Connolly and Denney-Wilson, Journal of the Australian Epidemiology Association V12.1, 2005
- *Ozdocsonline - A Case Study in Security & Privacy for a Doctor-patient Web-based Communication Tool* HIC/RACGP Computing Conference, Sydney, 2003
- *Mapping Privacy onto the IT function* Privacy Law & Policy Reporter, July 2003
- *Privacy positive aspects of PKI* Privacy Law & Policy Reporter, Vol 5.10, 1999.

Selected privacy papers, articles & presentations

- *Privacy Master Class for Infosec Professionals* AusCERT 2016, Gold Coast
- *What will privacy be tomorrow? New technologies and future privacy* iappANZ Annual Summit panel, Melbourne 18 Nov 2015
- *Executive Exchange: Safety and Privacy in a Digital Age* Constellation Connected Enterprise 2015, Half Moon Bay, USA
- *Biometrics, Privacy and the Biometrics Institute Trust Mark* Global Privacy Enforcement Network, October 2015
- *Forget about identity*, Cyber Identity R&D Planning Symposium at the Command, Control, and Interoperability Center for Advanced Data Analysis (CCICADA), Rutgers University, New Jersey, 1 July 2015
- *Rationing Identity on the Internet of Things* n Identity Summit 2015, La Jolla USA
- *Privacy Master Class for Infosec Professionals* AusCERT 2015, Gold Coast
- *A Privacy Engineering Primer*, Constellation Research April 2015
- *The Biometrics Institute Trust Mark* Identity Conference 2015, Wellington NZ
- *Privacy Enters Adolescence – The State Of Digital Safety and Privacy in 2015* Constellation Research, December 2014

- *The Right to Be Forgotten: Privacy Saviour or Unworkable Solution?* IEEE Live Webinar, 30 September 2014
- *How to Protect Your Customers' Digital Identity and Personal Data* (Privacy Master Class), Social Media Week Sydney, 26 September 2014
- *Privacy in the digital age* Global Privacy Enforcement Network, May 2014
- *"Big Privacy" Rises to the Challenges of Big Data* Constellation Research, April 2014
- *What Happened to Privacy?* Australasian Science, December 2013
- *Tackling breaches and data transfers* iapp ANZ Annual Conference, Sydney, Nov 2013
- *Trace Recordings: Surveillance and identity in the 21st century* UTS, Oct 2013
- *Public yet Private, and other paradoxes when privacy law meets cyberspace*, Australian Institute Professional Intelligence officers, Annual Conference, Canberra, July 2013
- *Designing Privacy By Design: A hybrid Privacy Security Risk Assessment* AusCERT 2013
- *How can technologists relate to privacy?* Privacy Trade-offs in the Information Age seminar, Swinburne University of Technology, Melbourne, May 2013
- *Big Data, Big Privacy* Australian Privacy Week Launch, Sydney, 29 April 2013
- *Designing Privacy By Design* iappANZ Bulletin No. 40, Feb 2013
- *A Fresh Look at 'Balancing' Patient Privacy & Clinical Safety*, Managing Patient Confidentiality and Information Governance, Melbourne, 2011
- *Electronic Verification: The new benchmark for customer identity*, Veda Whitepaper, 2011
- *Public and yet still private* Online Banking Review, June 2010
- *Google, wifi and the gulf between IT and privacy*, iappANZ Bulletin No. 12, May 2010
- *An uphill battle for online privacy* Sydney Morning Herald, 17 Feb 2010
- *When worlds collide: Managing privacy in joined-up service & payment environments*, Human Services Delivery & Payment Reform Summit, Canberra, 2010
- *Reflections on technology and privacy* Inaugural iappANZ Conference, Sydney, 2008
- *Re-thinking Identity & Privacy* 3rd Annual ID & Access Summit Sydney, 2008
- *"Privacy Engineering" - A fresh proactive approach to privacy compliance*, Australian Information Security Association Annual Conference, Sydney, Nov 2007
- *A new manifesto for smartcards as national information infrastructure*, 5th Homeland Security Conference Canberra, 2006
- *Telltale prints* Letter to the editor, New Scientist 14 August 2004
- *Problems in Mandating Strong Personal EOI in PKI*; APEC TEL 23, Canberra, 2001.