Dan Shearer

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Summary

I am a computer technologist. I solve computing problems in the fields of privacy, cloud computing, law and medicine.

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I really enjoy:

- open source technology, and ensuring knowledge stays available to everyone
- privacy, which depends on human rights and computer security
- science communication aimed at technologists and students
- practical timeshifting techniques in computing and the real world

My online CV has more details of projects, papers, topics and talks. My LinkedIn profile has a full chronology.

Skills

- Open Source Project Founder - I co-founded the Samba project and that was my constant background for the next two decades. LumoSQL is an embedded privacy project that improves the databases used in every mobile phone. Sweet Lies is a cloud privacy project, making some necessary and interesting changes to the excellent Signal messaging application.
- Privacy and IT/IP law - I have published on the EU-US Privacy Shield; GDPR Articles 28 and 32; Automation of privacy laws, copyright, patents, IP hygiene and Open Source Business models.
- Privacy and Security implementer - I help organisations use collaboration tools so that ISO27001, GDPR and CyberSecurity are built with the employees, rather than imposed upon them.
- Technology assessor in cloud and IoT - For Venture Capital firms, or new projects, or reviewing the choices of existing tech stacks, knowing what the different components are for and when they should be used is not engineering, its technology.
- Educator - I teach on the leading edge of change, one step behind what I learn myself what the implications could be. Now-mainstream topics of virtualisation, IP law and privacy were once obscure and/or arcane. The leading edge for me is issues of complexity, the full breadth of Cybersecurity, human factors in the design of critical systems, and the counter-intuitive computer science involved in scaling. Software Developer - I have published code in C and other languages, all the way back to REXX. Mostly system and infrastructure code. Technology assessment usually involves code reading and experimenting.
- IT Infrastructure - A lot of my work involves knowing how servers work, how to practically apply scaling approaches, and how to design cloud stacks that are less fragile.

More recent history - see LinkedIn for more.

Open Source Projects

In 2020 and 2021 I have had two funded Open Source projects, very different but both related to modern privacy requirements. Both projects involve changing vital community-developed software, without splitting the code off into our own separate fork.

LumoSQL Project NLnet funded Phase I and now Phase II of LumoSQL to add at-rest security and privacy and novel per-row features to LumoSQL. LumoSQL is an Internet-of-Things project, with timeshifting capabilities.

Sweet Lies Project NLnet has funded this project which makes some security and privacy changes to the open source Signal app. Sweet Lies is a mobile app supported by a Cloud Computing service.

Cybersecurity Deployments

Each year from 2018 I have had consultancy work to develop my GDPR, ISO27001 and CyberEssentials tooling. I involve employees in documenting how they actually do their work today, and then ask them if changes are needed for compliance.

ISO27001 and GDPR as a Records Management Problem Implement ISO27001 and GDPR in each of a cloud computing company, an earth sciences company and a logistics company. Information Science has the concept of Records Management, which is ideal for delegating authority out to all employees for improving the processes for their own job. Treating GDPR as a system of controls like ISO27001 seems to be a relatively new approach, and much more accessible for most staff.

Implement CyberEssentials for multiple companies CyberEssentials is a UK government certification that nudges companies to fix the most obvious and common security issues. Just asking the questions in this simple, self-assessed questionnaire has a clear benefit in changing behaviour. The psychology of this has been fascinating, after decades of security having no perceived benefit to organisations.

Startup Assessor

During 2012 - 2018 I assessed startup companies for a Venture Capitalist. In 2021 I have started I advised Open Ocean Capital Oy, venture capital fund in Helsinki, Finland, on investment decisions

I am currently assessing database startups to see where they fill gaps in the traditional database market.

Other Assorted Work 2013-2020

Expert Witness I investigated and reported on electronic microfabrication to the Court of Sessions in Ultratech Inc vs Stepper Technology Ltd

Software Architect Consultant on radiopharmocology software to Erigal Ltd

Consultant on manufacturing fault detection and warehouse product tracking

Consultant on using timeshifting virtualisation software to quickly simulate old but essential computers

Legal technology advisor Assisting assorted legal practices in Scotland and England on IP and Privacy matters

Board member and Vice President During 2014-2017 I was a Zentyal S.L. in Zaragoza, Spain, Open Source company

Figure 1: Where I fit in an organisation

CV version 1.1