Dave Lane

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Personal Statement

Professional goal: to earn and maintain trust in my expertise, judgement, honesty, enthusiasm, discretion, and good nature.

An extreme generalist with great depth of understanding in many aspects of IT, markets and people. Ran IT and development services business for fourteen years, and then two more years working for a much larger firm, providing opportunities to work in most aspects of business. Has given me lots of ideas, big and small, and a sense of perspective.

Have plenty of energy to assist – or lead – worthy causes which align with my ethics.

Further professional information is available on **https://davelane.nz**

Professional Experience

Open Source Technologist – Open Education Resource Foundation   *June 2015 – present*

Administer and enhance the Foundation's open source infrastructure to enable collaboration among its member institutions and provide software development services contributing towards a global online compendium of tertiary curriculum materials on WikiEducator[1] and on the OERu website[2]. All of this content is licensed under Creative Commons terms to encourage reuse. Work with the Foundation's thirty+ tertiary institution partners to facilitate collaborative development of Open Educational Resources, and identify technical and social aids to help coordinate the growing global OER community.

Pubication:

- Lane, David C. and Goode, Claire. "Open For All: The OERu's Next Generation Digital Learning Ecosystem". International Review of Research in Open and Distributed Learning. Volume 22, Number 4. November 2021. https://www.irrodl.org/index.php/irrodl/article/view/5763/5600

Director – Lane Ventures Limited   *May 2015 – present*

Created a new company as a business vehicle to take full advantage of future professional and business opportunities and to support contracting opportunities in the short term.

Senior Consultant - Catalyst IT Limited   *December 2012 – April 2015 (2 years 5 months)*

Became senior consultant in the new Christchurch office when Catalyst IT[3] acquired Egressive on 1 December 2012. Performed many roles to help establish the Christchurch office, undertaking commercial work, integrating Egressive customers, maintaining relationships, and helping to build a harmonious, peerless technical team.

Commercial activities included designing complex IT projects, complex multi-stakeholder consultation including mediation, business and requirements analysis, managing projects, tender (RFP, RFI) responses and presentations, and even licensing and contract negotiations. I participated in marketing, presented at conferences, did FOSS (Free and Open Source Software) advocacy, and lobbied government.

Began developing technical IT training materials and conducting training for external and internal customers including other Catalyst trainers.

Director - OpenStrategies Holdings Ltd *2000 – July 2013 – (13 years)*

Owned and licenced materials and technologies to operating companies OpenStrategies (NZ and UK) Ltd. Both operating companies promote the system developed and refined by four Christchurch-based founders, providing a unique method for creating large scale, multi-stakeholder strategies which can be rigorously validated. Supported by a graphical web application developed by Egressive. In 2013 we transferred the company's assets to the NZ operating company. Co-founded and hold shares in all three companies.

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1   http://wikieducator.org
2   http://oeru.org
3   http://catalyst.net.nz

Director - Egressive Limited[4] *September 1998 – December 2012 (14 years 3 months)*

Started Egressive to meet demand for reliable, secure and cost-effective networked business IT infrastructure. Initially focused on system integration, installing Linux business servers providing a broad range of services like network file storage, backup, security connectivity, and email. Expanded over time into IT consulting and bespoke web application development, all built on and with FOSS tools.

Employed as many as twelve staff, with my role becoming more focused on software team management, and business development, marketing, and account management. When acquired by Catalyst IT in 2012, had seven staff and a hundred customers throughout NZ and in Australia to whom we provide some combination of development and hosting, system integration, communication, support, and consulting services.

After 7 year developing bespoke PHP web applications in 2006 we shifted to custom implementations of the Drupal CMS. We built a strong team with web design, development, and dev-ops specialists. Moved into Test Driven Development and Continuous Integration, adopting the Ruby on Rails platform and Scrum (Agile methodology) for some projects.

Provided high availability scalable Drupal and Ruby on Rails hosting on virtualised Linux servers on our own hardware. I shared system administration responsibilities. Integrated AWS[5] for unlimited horizontal scalability, CDN services, and static website fail over.

Director - Effusion Group[6] *February 2002 – April 2011 (9 years 2 months)*

Co-founder, co-director, and shareholder of the Effusion Group Ltd, an umbrella company supporting our IT and software development cluster comprising as many as twelve companies on the top floor of Kenton Chambers in Central Christchurch. The company was disestablished shortly after our building was destroyed in the Christchurch earthquakes.

South Island IT Manager – NZ Forest Research Institute[7] *1997 – February 1999 (2 years)*

Formalising my previously informal role at NZFRI's Christchurch office, in addition to my research duties.

Research Scientist - NZ Forest Research Institute *October 1994 – February 1999 (4 years 4 months)*

PGSF funded project to optimise "bucking": quality grading felled Radiata Pine (*pinus radiata)* stems in the forest and sawing into transportable lengths to maximise the resulting timber and pulp value. Developed *TreeGrabber* made up of a GPS unit, digital camera, and computer vision system (C++ on portable Linux computer) to capture stem images and compute dimensions and grade stem quality, use cellular data transfer to coordinate measurements with other forestry crews and fill outstanding timber orders.

Publications:
- Lane, D.C. and G.E. Murphy. "A multi-image digital photogrammetry tool for tree stem geometry and quality assessment." Proceedings of IVCNZ95, Image and Vision Computing NZ Conference, Lincoln, NZ. August 1995.
- Lane, D.C., Xin Tian, and G.E. Murphy. "New Developments in Stem Feature Recognition using Machine Vision." Proceedings of the LIRO 98 Forest Technology Seminar, Rotorua, NZ. November 1998.
- Lane, D.C. and G.E. Murphy. "Towards An Automated Tree Stem Description Using Machine Vision." Proceedings of Digital Image & Vision Computing: Techniques and Applications, Australian Pattern Recognition Society (ASPRS), Albany, Auckland, NZ. December 1997.

Technical

System Administration

Have been administering Linux computer systems for 29 years, designing and building system and network architectures, security, hardware compatibility, application support, and development support. Implemented and supported Ubuntu and Debian Linux servers running services like Samba, OpenVPN, OpenLDAP, Asterisk, Apache, MySQL, PHP, Postfix, Dovecot, Spamassassin, ClamAV, and Solr.

I have moved most of my administration to Docker-based systems today, and maintain dozens of physical and virtual private

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4   see https://web.archive.org/web/20120424093424/http://egressive.com/ for an historical example of our site. If feeling nostalgic or curious, you can view the Egressive site through its existence by clicking dates between 2000 and December 2012.
5   Amazon Web Services, e.g. Elastic Compute instances and S3 (network addressable storage) for Content Delivery Netowrk (CDN)
6   see https://web.archive.org/web/20100525032911/http://effusiongroup.com/about/network
7   The NZ Forest Research Institute is now Scion Research – http://scionresearch.com

servers in a variety of cloud hosting context. These include hosting services like Mailcow (a comprehensive, multi-tenanted email system), NextCloud (a collaborative document management and cloud storage solution functionally comparable to Google Apps or Microsoft Office 365 + Microsoft Sharepoint), Bit/VaultWarden (a full-feature password manager), Matrix (Synapse + Element – a full-featured chat system based on the Matrix open messaging standard), and BigBlueButton (a full-featured video conferencing system for small to large groups, designed for university lecturing).

Many of the systems I maintain are part of the Fediverse[8] – a parallel open, de-centralised, community-run network of social media technologies, all tied together via the ActivityPub[9] open standard. Examples I host include Mastodon, Pixelfed, Peertube, Owncast, Kbin, Lemmy, Mobilizon, and Write.Freely.

I have experience repurposing mobile devices with LineageOS[10] (a community-supported open Android implementation) – all of my phones and tablets run it - and extending the life of unsupported Chromebooks by replacing ChromeOS with a full Linux like Peppermint[11].

Software Development

FOSS-focused developer who has worked extensively with C and C++ (specifically the Qt[12] cross-platform libraries), has over a decade PHP experience, especially with the Drupal CMS. Substantial HTML and CSS. Very conscious of open web standards, cross-platform browser testing. Lately implementing sites with Bootstrap, working with SASS.

Use Vagrant virtualised Puppet-provisioned development environments. Use Git and Fabric for production deployment. Worked with the Python-based Django framework, and explored Javascript technologies like Node.JS, Angular.JS, and jQuery.

Strategy Development

Certified practitioner of the Validating Strategies methodology taught by OpenStrategies[13], relevant to many strategic consulting tasks.

Communication

Comfortable and experienced with public speaking to technical and non-technical audiences on a range of topics.

Write frequently for technical, scientific, and popular audiences and pride myself in my written communication. I have composed successful government policy submissions and position papers on complex topics. My FOSS advocacy articles have been featured by a number of internationally recognised publications. I am periodically contacted by journalists both in NZ and abroad for my views, particularly on issues related to FOSS.

In my NZOSS role (below) invited to write position papers, like on the Trans-Pacific Partnership Agreement[14], or why MS Windows XP users should consider migration to Linux[15]. Presented on topics like privacy in the Internet age, online voting, open data, IT education and open source software. Received a personal commendation[16] in NZ Parliament for work[17] on software exclusion in the Patents Act of 2013.

Developed and delivered technical courses in areas like "Drupal Content Management" and "Drupal Site-builders" along with non-technical training materials related to teaching IT essentials to a general audience. I also maintain a blog of technology recipes, the OERu Tech Blog[18], providing 'copy-and-paste' instructions for deploying and maintaining many of the technologies I have described.

Fluent in NZ and US English. Good reading and speaking knowledge of German (bi-lingual upbringing).

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8   The Fediverse is described at https://fediverse.info
9   ActivityPub open standard - https://www.w3.org/TR/activitypub/
10   Lineage OS – https://lineageos.org
11   Peppermint Linux OS - https://peppermintos.com/
12   see http://www.qt.io/
13   see http://openstrategies.com
14   see http://fairdeal.net.nz/2012/08/nzoss-software-patent-exclusion-vs-tpp
15   series of articles published at http://nzoss.org.nz/content/life-after-win-xp-another-approach-part-1 and abridged versions published on Computer World NZ - http://www.computerworld.co.nz/article/530938/opinion_life_after_windows_xp_another_approach
16   see https://www.youtube.com/watch?feature=player_detailpage&v=coBOBJAf6jY#t=385
17   see http://softwarepatents.org.nz (which I built and maintain)
18   See https://tech.oeru.org (which I built and maintain)

Advocacy and Volunteering

Participant in Institute of IT Professional's ICT-Connect[19] programme. About to start a CodeClub[20] at the local primary school.

President/Chair – New Zealand Open Source Society[21] *August 2011 – December 2020 (9 years)*

Voluntary role with the Society, a registered charity. Chair monthly council meetings, presided over sponsorship and educational activities. Developed and support NZOSS' online services[22].

Advisory Group – Creative Commons Aotearoa New Zealand[23] *July 2014 – July 2017 (3 years)*

On the Advisory Group of CCANZ, concerned with enhancing the knowledge and use of Creative Commons attribution rights (implemented on Copyright Law) in Aotearoa New Zealand.

Honours & Awards

2022 - winner of the "**Rusty Wrench**" award for contributions to Free and Open Source Software. Awarded by **Linux Australia**.
2010, 2012, 2014, 2016, 2018 - participated as a judge for the **NZ Open Source Awards**.
2008 - winner of "**Open Source Use in Business**" award at the **NZ Open Source Awards**.

Education

Master of Science in Mechanical Engineering (MSME) *June 1992 - August 1994 (2 years and 2 months)*

Department of Mechanical Engineering, University of Washington, Seattle, WA 98195, USA

Areas of study: axiomatic design and cross-disciplinary work in computer modelling and simulation, graphics programming, computer vision, image processing (all in Electrical Engineering), and photogrammetry (Civil Engineering). MS thesis title: "A Prototype System for Step-Wise Close-Range Digital Photogrammetry and Automated Terrain Reconstruction."

Throughout my MS course, I was a Research Assistant working with the Forest Systems Engineering group in the College of Forest Resources, funded by the US Forest Service. I undertook flight tests of a helicopter mounted camera boom for use in close-range stereo aerial photogrammetry. Designed, documented, constructed, and tested a companion video camera and mount system for targeting. Acquired "Supplemental Type Certification" for the camera boom and video camera mount assembly from the US Federal Aviation Administration.

Bachelor of Science in Physics (BSc) *August 1988 - May 1992 (3 years 9 months)*

Haverford College, Haverford, PA 19041, USA

In addition to a full physics curriculum complemented with maths, and computer science, I also undertook a "liberal arts" curriculum including course work in diverse areas like Economics, Philosophy, Urban Planning, Anthropology, Political Science, German, Music, Fine Art. I conducted independent research in fluid dynamics (bifurcation theory, resonance, symmetry) which resulted in my undergraduate thesis: "Surface wave interactions in a non-square four-fold symmetric cell," and a peer reviewed publication: Crawford, J.D., J.P. Gollub, D.C. Lane. "Hidden symmetries of parametrically forced waves." Nonlinearity 6 (1993) p. 119-164.

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19   see http://www.ictconnect.org.nz
20   see http://codeclub.org.nz
21   see http://nzoss.nz for more information
22   see https://nzoss.nz/services
23   see http://creativecommons.org.nz for more information

References

References available on request.

Personal

US citizen by birth (February, 1970), naturalised kiwi (dual NZ/US citizen). Full NZ drivers' licence.

Married with two sons. Non-smoker, in good health.

Interests: exploring, participating in and advocating for FOSS; cycle commuting/mountain biking; singing, making and appreciating music; sourdough bread baking; cooking; Aikido; R/C aircraft; photography; drawing; writing all kinds of things; solar power/storage; tramping; woodworking; gardening; canoeing and sailing; robust discussion (like comparing socio-economic theories); ultimate (team field sport played with a Frisbee®); dancing swing; savouring a great meal (favouring spicy cuisine), funny and intelligent films, a pithy novel, an aromatic hoppy handcrafted pale ale, a well balanced wine, and a proper coffee.