

Work

Simon Fraser University, Digital Preservation and Data Curation Specialist; 2012-2016.

-> Research Data Management and Systems Librarian; 2016-Present.

- Served as the lead analyst for, deployed, managed, supported users of, wrote policies around, and eventually migrated our research data repository platform.
- Implemented data discovery and data encryption interfaces at a national level in Canada through consultation with stakeholders across universities and in government.
- Designed command line, web, and desktop tools for supporting preservation workflows and contributed to best practices locally around digitization and retention of audiovisual media.
- Worked with research computing and HPC on scaling up capacity; handled VPS infrastructure for university archives and provided guidance to researchers around hosted services.
- Architected solutions & liaised with external partners at Dataverse, eLife, OLH, and MediaX on open source collaborations with the Public Knowledge Project and Open Journal Systems.
- Performed web archiving at various levels; crawling, screen-scraping content.
- Imaged, migrated, and emulated legacy media from Macintosh and non-Macintosh disks.
- Developed an accessible workflow for theses; redacting documents, correcting encodings.
- Created automated testing and evaluation pipelines for experimental and production code.
- Helped local independent vendors adopt MediaArea tooling for lossless film transfers.
- Provided support and scoping expertise to digital humanities faculty and programmers.
- Taught and mentored students in data management and research software development.
- Supervised software developers and RAs; created and maintained project roadmaps.

SocialFlow, Data Scientist (PhD Intern); 2012.

- Performed social network analysis of real-time Twitter data for impact maximization.
- Wrote Hadoop queries and pitched media organizations.

Neuroethics Canada, Graduate Researcher; 2010-2012.

- Measured the impact of research; content analysis, network visualization, grant writing.

City of Vancouver Archives, Digital Project Archivist; 2011.

- Cleaned up and re-structured archival records database; refined user specifications.

NextWerk vTeams, Development Coordinator; 2009.

- Acted as the server technician and client liaison for a distributed web development team.

Education

University of British Columbia, MLIS; 2009-2010.

University of Connecticut, BA, Cognitive Science and Linguistics; 2006-2009.

How to Identify and Remediate Disclosure Risk, ICPSR; 2018.

Selected Publications and Presentations

Garnett, A., and Zhang, J. (2020). Lightweight Zero-Knowledge Encryption for Repository Deposit of Sensitive Data. *DLF Forum*.

Stathis, K., and Garnett, A. (2020). Making a Harvester Harvestable: Federating an OAI endpoint directly from Postgres. *Access Conference*.

Garnett, A. (2020). Aesthetic Trends of Compression Artifacts. *We Miss iPres*. https://youtu.be/-EH63I_VXZY?t=756

Garnett, A., Wilson, L., Turp, C., and Pascoe, J. (2019). The Fast and the FRDR. *Open Repositories*. <https://www.mdpi.com/2304-6775/8/2/25>

Qasim, U., Davis, C., Garnett, A., Marks, S., and Moosberger, M. (2018). Research Data Preservation in Canada: A White Paper. *Portage Network*. <http://hdl.handle.net/2429/67130>

Garnett, A., Winter, M., and Simpson, J. (2018). Checksums on Modern Filesystems, or: On the Virtuous Consumption of CPU Cycles. *iPres*. <http://www.sfu.ca/~garnett/ipres18.pdf>

Castro, E., Crosas, M., Garnett, A., Sheridan, K., and Altman, M. (2017). Evaluating and Promoting Open Data Practices in Open Access Journals. *Journal of Scholarly Publishing*. <https://utpjournals.press/doi/abs/10.3138/jsp.49.1.66>

Garnett, A. and Trann, T. (2017). The Canadian Federated Research Data Repository: A Modestly Large Collaboration. *Open Repositories*. Brisbane, AU.

Garnett, A., Aufreiter, M., Buchtala, O., and Alperin, J.A. (2017). Introducing Texture: An Open Source WYSIWYG Javascript Editor for JATS. *JATS Conference*. Bethesda, MD. <https://www.ncbi.nlm.nih.gov/books/NBK425544/>

Trann, T. and Garnett, A. (2016). Building a Scalable National Repository Infrastructure for Canada. *CANHEIT*. Edmonton, AB.

Garnett, A. and De Meo, M. (2016). Using a GPU to Accelerate Digital Preservation Workflows. *Open Repositories*. Dublin, IE. <http://www.sfu.ca/~garnett/or16.pdf>

Garnett, A. and Graebner, C. (2015). Evaluating the Suitability and Sustainability of “Local Dropbox” Solutions to Complement a Research Data Repository. *Open Repositories*. Indianapolis, IN.

Garnett, A. (2015). OMERO: File-level preservation for natural scientists. *IASSIST*. Minneapolis, MN.

Garnett, A., Alperin, J.A., and Willinsky, J. (2015). The PKP XML Service and meTypeset: a new Word-to-JATS solution. *JATS Conference*. Bethesda, MD.

Castro, E., and Garnett, A. (2014). “Building a Bridge Between Journal Articles and Research Data: The PKP-Dataverse Integration.” *The International Journal of Digital Curation*. <https://dx.doi.org/10.2218/ijdc.v9i1.311>

Bell, A., Garnett, A., Graebner, C., and Harder, G. (2013). Barn Raising in a Virtual World. *Coalition for Networked Information Fall Membership Meeting*. Washington, DC.

Garnett, A., Lee, G., and Illes, J. (2013). “Publication Trends in Neuroimaging of Minimally Conscious States.” *PeerJ*. <https://peerj.com/articles/155/>.

Willinsky, J., Garnett, A., and Pan-Wong, A. (2012). “Refurbishing the Camelot of Scholarship: How To Improve the Digital Contribution of the PDF Research Article.” *Journal of Electronic Publishing*.

Siemens, R., Timney, M., Leitch, C., Koolen, C., and Garnett, A. (2012). “Toward Modeling The Social Edition: An Approach To Understanding The Electronic Scholarly Edition In The Context Of New And Emerging Social Media.” *Literary and Linguistic Computing*.

Garnett, A., Whitworth, E., and Fazzio, S. (2012). Doctor Who meets Doctor Zhivago: Modeling Serendipity on Extreme Divergence. *CSCW 2012 Workshop on Design, Influence, and Social Tech*.

Nathan, L. and Garnett, A. (2011). Privacy Research & Real-World Design: Is there an Elephant in the Room? *CHI 2011 Workshop on Privacy for a Networked World*.

Garnett, A., Whiteley, L., Piwowar, H., Rasmussen E., and Illes, J. (2011). “Neuroethics and fMRI: Mapping a Fledgling Relationship.” *PLoS ONE*. <http://dx.plos.org/10.1371/journal.pone.0018537>

Schneider, O. and Garnett, A. (2011). ConsentCanvas: Automatic Texturing for Improved Readability in End-User License Agreements. *Association for Computational Linguistics Conference*.

Teaching

- **Introduction to Python Programming.** Taught annually+ since 2014, through the SFU Research Commons, Code4Lib BC, Software Carpentry, and the UBC Digital Humanities Salon.
- **Introduction to Shell Scripting.** Taught in 2015 through Code4Lib BC.
- **Introduction to Text Parsing and Regular Expressions.** Taught in 2016 through SFU Library Research Bazaar.
- **Introduction to Data Security.** Taught several times annually since 2017, through the SFU Research Commons, based on curricula developed from EFF materials by Jessica Gallinger.
- **Research Data Management,** UBC iSchool guest lecture.
- **Information Technology and Archives,** UBC iSchool guest lecture.

Working Groups

Portage - FRDR Discovery Working Group, Preservation Expert Group, Curation Expert Group

AtoM 3 Roadmap Committee

Access Conference 2020 Organizing Committee

Software Preservation Network Technological Infrastructure Group

Skills and Miscellanea

- Fullstack software development, preference for Python/SQLite, expertise in text parsing
- Facility with quickly prototyping web or desktop apps, primarily using Flask and Electron
- Hacking of deprecated interactive media for display or retention
- Dataset training, modeling and visualization using Tensorflow, R, and D3
- Database and server management and general dev ops provisioning (Docker, zsh, Rails, Nginx)
- Knowledge of, opinions about, querying and indexing of common metadata standards
- Service on hiring committees of junior and senior colleagues
- Participating in RFP processes guided by government privacy and purchasing requirements
- Experience with basic 3D modeling for printing
- Microcontroller breadboarding and low-level I/O for digital forensics
- Creating and maintaining documentation using static sites and video tutorials
- Podcast audio production (spectral editing) and livestreaming
- Lua scripting for game development and presentation
- Cross-platform (Windows/Mac/Linux/Android/iOS/HyperCard/etc.) porting and support
- BAA French language proficiency

Grants and Residencies

ASIS&T New Leaders Grant, 2010

Society for Scholarly Publishing Early Career Award, 2011

Stanford MediaX Publish-on-Demand Competition, 2012

Canadian Internet Registration Authority Community Investment Program, 2015

Nvidia Research Hardware Grant, 2016

SFU University Priorities Fund Recipient, 2019

Recurse Center (Winter 2), 2021