

# Work Experience

Name: Russell William McOrmond

Born: 1968

Neurotype: Autistic

GitHub: <https://github.com/russellmcormond>

LinkedIn: <https://www.linkedin.com/in/russellmcormond/>

The following includes technical and non-technical (consultation, research, public policy) experience, some paid and some volunteer.

## 2018 CRKN (April 2018 to May 2023)

- Canadiana.org merged with the Canadian Research Knowledge Network. Many aspects of my work at Canadiana.org continued with this new employer. While I had been working closely with Canadiana's Metadata Architect since 2014, I took on that role part-time starting in 2017 when she moved to another opportunity.
- There were periods where I was the only systems administrator, and I offered knowledge transfer to two additional systems hires as well as knowledge transfer on back-end software (metadata and data management). I prefer collaborating with others that have some overlap rather than having unique knowledge.

## 2014

- Promoted to Lead Systems Engineer at Canadiana.org. This added supervisory and planning responsibilities to the type of work I was already doing for Canadiana.
  - While I still had systems related responsibilities, I delegated most systems related tasks to other staff. I worked closely with a newly hired Lead Metadata Architect and the previous person doing that work to learn about Library Systems, Metadata Application Profiles (MAPs) and library related data models and encoding standards.
  - Collaborating with the Metadata Architect, I was the primary developer for Canadiana's [Ingest Automation](#) (the custom OAIS packaging system – learning more about OAIS, METS, BagIt, etc), [repository management](#), as well as the [Metadata Bus](#) (learning about MARC, Dublin Core, AltoXML and custom schemas such as CMR, IssueInfo and TxtMap). I was actively learning from the broader community about Linked Open Data, Bibframe, IIIF and many other relevant emerging technologies in the library and archival technology spaces.

- Other Skills: GitHub (Git, Subversion), Databases (CouchDB, MySQL, Solr, Redis), Javascript/Node.js , Networks (deploy, manage, secure), Virtualization/containers (KVM, Docker), Puppet, Perl, IIIF

## 2011 Canadiana.org (January 2011 to March 2018)

- Started at Canadiana.org first week of January for a 6 month contract, and then per-diem work into July+August. This project primarily involved administering a series of Linux servers (Debian, Ubuntu) on the LAN as well as Internet servers co-located at an ISP. Keywords: Icinga, Nagios, Backupninja, rdiff-backup, Catalyst, perl, Drupal, php, LAMP, Redmine, Paypal API
- [Intervention on March 8](#) before Legislative committee on Bill C-32 to discuss IT property rights in context of *Bill C-32, An Act to amend the Copyright Act*.

## 2010

- Returned to Agri-Geomatics the first week of January until the last week of April. Total time at AgriGeomatics 15 months.
- Updates to Just Food mapping application

## 2009

- Continued Agri-Geomatics contract until end of September
- Short project with Just Food involving Google Maps. Data from points set in Google Maps were merged (JavaScript) with data in a spreadsheet loaded into Google Docs. The resulting KML file was then used in a Google Maps application to display details about farms and restaurants.

## 2008

- Added Nobel Women's Initiative to list of clients where I am managing a RHEL (Red Hat Enterprise Linux) colocated server. Included migration from the previous host which ran Zeus web server. I had previously done work on their Joomla CMS system to work with Zeus (issues with Search Engine Friendly URL's).
- Speaker at IT360 on Software Patents and Free/Libre and Open Source Software (FLOSS)
- Guest speaker at University of Waterloo to discuss copyright.

- In November 2008 I started a contract with Agriculture Canada on a project then called the National Land and Water Information Service (NLWIS), which was renamed to Agri-Geomatics in 2009. The shortest way to explain the project is to call it Google Maps for farmers.

**FLOSS technologies involved in project:** [OSGeo](#) stack of software (Mapserver, OpenLayers, GDAL/OGR), TileCache, ExtJS, Proj4JS, JavaScript, Java, Tomcat, Apache, CentOS (DeskTop), Redhat Enterprise Linux (servers)

**non-FLOSS (or mixed source) technologies used in project:** ESRI (ArcGIS desktop and server, ArcSDE and ArcSDE's SDK), Citrix remote access, VMWare, Microsoft Office and Outlook, Oracle (OAS, OEM, database)

## 2005

- Hosted many websites in this era on co-located servers:
  - [Calcutta.flora.ca](#)
  - [Jaipur.flora.ca](#)
  - [Newdelhi.flora.ca](#)
  - [Pune.flora.ca](#)
- Hired by The Council of Prairie and Pacific University Libraries (COPPUL) to participate in discussions (in Vancouver) around the public Open Source release of the reSearcher suite.
- Hired by Sierra Club of Canada and Make Poverty History as a system administrator. Clients are currently renting a colocated server from Magma where I do all the sysadmin work for their LAMP stack. Includes authoring of Drupal modules, perl scripts, etc
- Hired via Ajilon to PWGSC for a project previously called CoSE, currently called Intellectual Resources Canada (IRCan). Project included configuring IBM OpenPower Systems 720 using both Hardware Management Console as well as command-line control via shell connection to Solaris based management server. These machines ran multiple virtualized instances of Novel supported SuSE Linux running various web applications.
- Speaker at Council of Federal Libraries Annual Fall Seminar (panel on Copyright)
- [Speaker](#) at OpenCity 2005: A Festival of Participatory Culture in Winnipeg

## 2004

- Hired by Copyright Policy Branch of Heritage Canada to do a presentation and answer questions on Technological Protection Measures (TPM).
- [Intervention on May 4](#) at the Standing Committee on Industry, Science and Technology on May 4, 2004.
- Hired by JFL Peripheral Solutions on behalf of the TWAIN Working group to discuss business models and make recommendations on licensing around a possible future

FLOSS release of the TWAIN Data Source Manager for Linux (and possibly other platforms).

- Hired by Sierra Club of Canada to move their public website hosting from a virtual server on a previous provider to a Managed server with Magma. Various smaller projects relating to system administration and the configuration of new services on that server are ongoing.

## 2003

- Configured SAMBA file sharing services on a Dell 2600 server running Linux for EKOS Research Associates. Authentication for SAMBA was via two mirrored Windows NT Domain controllers, with authentication on the Samba server provided via winbindd.
- Commissioned by ICT branch of Industry Canada to do A Review Of Software Patent Issues. This included a draft for public peer review, and presentations within Industry Canada.
- Presenting Office Suite Productivity in Government at the Real World Linux and NRC's GovNet 03 conference.
- Submission to Section 92 Copyright act review that was being done by the House of Commons Standing Committee on Canadian Heritage. This submission included a table at the end of the various digital copyright and GOSLING events I was involved with up to that time.
- Submission to the Competition Bureau to try to draw the attention of the bureau to the competition policy issues with current copyright revision.

## 2002

- Hosted a talk at the Ottawa Linux Symposium on GOSLING and/or Copyright from 2002 to 2007.
- Submission to the Lawful Access consultation (Department of Justice Canada, Industry Canada, Solicitor General Canada)
- Did a 2-hour live debate on Copyright Reform as part of Rabble Rumble. I was debating Susan Crean (writer and cultural critic) with Judy Rebick (Sam Gindin Chair in Social Justice and Democracy, Ryerson University; and Publisher, rabble.ca.) as moderator. This debate had both a live audience at Ryerson University, Toronto, and an online audience in either streaming video or audio-only format.
- Presentation to the October 2002 OCLUG Meeting - Linux in Government. Talk was titled From Raymond to Stallman: Open Source equality or Free Software public policy?
- Researched and wrote a submission to the Innovation Strategy (Joint Industry Canada and HRDC)
- Presented to the Open Source Solutions Showcase (Inovatec, PWGSC)

- Submission to the CRTC on DTV/HDTV and Open Source
- As a partnership with Sandelman Software Works set up CooperIX which is a colocation space on Cooper St. in downtown Ottawa.

## 2001

- Researched and wrote submissions to the 2001 copyright reform consultation. Presentations were made to Industry Canada and Heritage Canada based on these submissions. A presentation was made to high-school teachers at a professional development day (Feb 22, 2002), and to two high-school classes (Fall 2001, spring 2002)

## 2000

- Partnered with Open Concept Consulting. OpenConcept now handles all the customer support and billing services for all my smaller clients. All hosting services are handled with OpenConcept as a reseller of my services
- Installed/Hosted and maintained PHPSlash based Weblog for the Green Party of Canada. This was first used by the Convention in Ottawa which included posting of MP3 audio transcripts of the convention. Later it was used in a by-election to elect Joan Russow, and more recently has become a more integrated part of their communications plan.
- Developed a riding-contact and election results series of scripts for the Green Party of Canada during the 2000 federal election. These scripts extracted information from the sites of Statistics and elections Canada and inserted into an SQL database. We then used PHP scripts to provide custom views to this information.
- Took on hosting of all Websites/email/etc relating to the Green Party of Ontario.

## 1999

- Partnered with Indian company The Communicators (Netshooter) to offer more custom services to their clients. Humanist.netshooter.com was a co-located server in Ottawa I managed.
  - See: [List of Websites on Humanist.netshooter.com](http://Humanist.netshooter.com)

## 1998

- Scripts to upgrade Online Subscription system to allow for yearly Renewals for the Canadian Heritage Information Network.(PHP2,PERL, Postgres95)
- Contract with JFL Peripheral Solutions Inc.
  - Installation of Linux based LAN Fileserver and Internet gateway.
  - Virtual WEB/Email services.
- Contract with Canadian Abortion Rights Action League
  - Upgrade of LAN including coordination of 3 new Pentium computers
  - Server includes HTTP Intranet server for internal documentation, control of demand-dial PPP connection, cost-effective UUCP/POP/SMTP Based Email connection (No per-minute charges from ISP for Email, only for WEB surfing).
  - Virtual WEB server and Email gateway system for new caral.ca domain.
- Work for Media-Awareness Network including:
  - LAN maintenance of an 11 computer Windows-desktop network.
  - Installation/maintenance of Linux based Firewall and LAN server. LAN server used for internal WEB development work and was the primary shared disk for their network.
  - Additional WEB services for advanced scripting, including PHP3 based forms processing for the Privacy Forum Online Survey.

## 1997

- Script writer for an online game for the Canadian Human Rights Commission (The game was called The Hydra of Hate. Contact was through Infolink Consultants). (CGI, CGI-WRAP, PERL, HTML Automatic re-writing, EMAIL)
- Contract with Forestry Canada to write Feedback scripts for the National Forestry Database Program (CGI, PERL, EMAIL)  
In October did a site evaluation for NFDP including recommendations for HTML authoring tools. Involved outsourcing second opinion on site to Attention Seekers for visual work.
- Contract with Planned Parenthood Federation of Canada including:
  - Upgrade of new LAN including coordination of 5 new Pentium computers
  - Migration from Novel based LAN server to SMB based network on Linux server
  - Server includes HTTP Intranet server for internal documentation, control of demand-dial PPP connection, cost-effective UUCP/POP/SMTP Based Email connection (No per-minute charges from ISP for Email, only for WEB surfing).
  - Virtual WEB server and Email gateway system for new ppfc.ca domain.
- (June) Joined Board of Directors for Coop Voisins
  - Attended **Board Basics** and **Advanced Board Management** courses offered through Co-operative Housing Federation of Canada (CHF Canada)

## 1996

- Author and support Media related software tools for P&L Communications.
  - Program author for tool to read files sent via FTP from Southam and automatically make available via HTTP protocol to customers and media analysts.
  - Script writer for tool designed to automatically update story summaries that reference specific print media articles to point to an index of stories on that page for easier searching of articles by client.
- Project with Fantasy Sports Services (Contract through MAGUS Communications)
  - Contract for 1 year of Virtual Internet services using the fss.on.ca domain name (DNS registration, WEB server, Email and Mailbox services)
  - Script developer for 3 Interactive Sports games that were to be installed on the CANOE (Sun New Media) server
    - Sports Sweeps
    - BaseBall
    - Hockey
- Project with Transport Canada (Harbours & Ports) to develop strategy for movement into an online publishing format. WEBSITE prototype was developed.
- Contract for monthly virtual Internet services and consulting with United Nations Association in Canada.
- Contract for monthly LAN Connectivity and Virtual EMAIL services (@ott.environics.ca) for the Ottawa office of Environics Canada.
- Contract with [Milkyway Networks](#) to interface new scanning software with PostgreSQL (A UNIX based SQL server).
- Contract with Forestry Canada to write registration scripts for the kochi Conference
- Consultant for Human Resources Development Canada (Cross-Canada discussion groups relating to the Collective Reflection on the Changing Workplace )

## 1995 FLORA.ca (1995 to 2012)

- Started consulting business working under my own name. I offer myself as the technical support specialist in virtual corporations (Groups of consultants that come together under a name to provide services) or as an individual.
  - Configured local LAN services including TCP/IP networking, SMB file-system sharing (Known also as Lanmanager Network, the protocol used by OS/2, Windows for Workgroups, Windows95 and Windows-NT networking), SMTP Email/POPmail services, News services, WEB Virtual hosting, WEB/Gopher/FTP Caching.
  - Consulted with Achilles Internet and PresTech in helping bring new customers online.
  - Projects with [P&L Communications](#) creating new services for both government and private sector clients.
- Partnership with MAGUS Communications.

- Volunteer work in Community Networking
  - WEB provider for non-profit organisations with the [Flora Community WEB](#).
  - Host for numerous mailing lists including the Alternative-Transportation list and the Auto-Free Ottawa lists.
  - UUCP transport distribution of Email and News to other community sites.
  - Ongoing technical support with the National Capital Freenet, including maintenance of the Freeport->HTML automatic translation software.
  - Wrote various proposals speaking about the technical needs for the future of Community Networking that are included in an archive of information on community networking in the National Capital Region.

## 1994 ARRAY Development (May 1994 to June 1995)

- May 29, 1994 to June 23, 1995: [ARRAY Development](#)

As part of this job I:

- configured and maintained Unix servers (Linux, SunOS, Solaris, NetBSD)
- performed kernel level configuration of Linux for customization
- compiled, configured and maintained World Wide Web servers
  - wrote CGI server script (Languages: C, PERL, shell)
  - 'formmap' for pull down menus within Hypertext documents
  - simple search engine (Depository Services, Canada Communications Group)
  - History Quiz (Mandarin, Canada Communications Group)
  - Single screen book order form for Canada Communications group
  - Multi-screen order form for Geological Survey of Canada
  - compile, configure statistic monitoring software
  - configuration for per-customer password protected areas
  - proxy and document caching services for internal LAN users
- configure and maintain News services (Usenet, etc)
- configure and maintain Email services
  - Sendmail and Smail configuration
  - POP server maintained for LAN Email services
  - automated information re-mailers (info@ARRAYdev.com)
  - customer and ARRAY support Mailing Lists
  - automated mailing list maintenance (majordomo@ARRAYdev.com)
  - mailing list archiving and automated archive retrieval methods
- set up LAN services and routing
  - SMB based print and file sharing between Windows workstations and Linux/Unix servers
  - Full TCP/IP Lan services including Email, News, Web, Gopher
  - router configuration with Ascend and CISCO routers
  - cabling/configuration of network interface cards (10baseT, 10base2)



## ■ Domain Name Services (DNS) configuration and maintenance

1993

- Wrote a [proposal](#) to the National Capital Freenet for the August 1993 Community Networking conference. This included moving to a distributed computing environment using open communications standards that would facilitate easier future expansion.
- Moved all development efforts away from AmigaDOS towards Unix based systems. I also withdrew from Fidonet in order to concentrate my development time on Internet based tool design.

1992

- Discovered the Free Software Foundation, the GNU project, and related movements. While I do not have an exact date of when I joined the gnu.misc.discuss newsgroup, a [search on Google](#) indicates that my first posting was on Feb 11, 1992. The topic was: [Public Domain re-worked and re-released under GNU Public License?](#).
- Released my final version of Welmat, and started work on the WPL mailer language. This was a full telecommunications language that allowed authors to write restricted shells, BBS front ends, Fidonet and UUCP transport connections, and many other features.
- Wrote the GORDON Tosser/Scanner for Fidonet. This program handled the distribution of Email and public discussions for Fidonet.
- Became a member of the FTSC (Fidonet Technical Standard Committee).
- Started as a hardware-software volunteer for the National Capital Freenet (User ID: aa302), and helped with configuration of the initial system. I wrote a utility to output the list of 'go' commands, configured and helped set up and maintain the Gopher server.

1991

- Took over all maintenance and development for the Welmat project.

1990

- Worked as a hardware and software Technician at Lynx Technical Services(Ottawa). As part of this job I repaired a number of different computer types, did software installation and support, performed LAN installations and did training.

1989

- Maintained 'atronx.UUCP', a UUCP mail hub with software running under AmigaDOS.

1988

- Acted as Email and conference hub for Ottawa Fidonet. Was running the largest 'Point' (Single user Fidonet site, address 1:163/109.x , where 'x' incremented for each user) server in Fidonet at the time. Helped work on a Fidonet communications package for the Amiga computer called WelMat (Author: Michael Richardson).

1987

- Enrolled at Carleton University to work toward a Bachelor of Computer Science Degree.
- Worked for Microplay Video Games doing hardware repair on game consoles, Video equipment (VCR's, Monitors) and other electronics.
- Joined Fidonet (1:163/18) as part of the running of a BBS for Microplay. This BBS was running on an MS-DOS based computer.

1985

- Won awards at Canada Wide Science Fair for work on Multi-processor Telecommunications system. This work involved the hardware design of a multiple MOS technologies 6502 based system, an inter-processor communications system and design and authoring of an advanced version of BASIC used for writing Bulletin Board utilities, online games, etc.

1984

- Started my own BBS running out of my home, initially running on an Apple-II clone.

1983

- Involved as a Sysop for a Bulletin Board System (BBS) running at Science North in Sudbury. Was also a Co-Sysop for a number of other BBS systems.