1. Position Identification

Position Number: 992921
Position Title: Developer/Analyst (Digital Scholarship)
Department: McPherson Library Systems Department
Reports to: Senior Developer/Analyst Digital Scholarship
Number of Direct/Indirect Reports: Direct: 0  Indirect: 0
Classification Level: SG 10
Current Incumbent (if applicable): New Position

2. Position Summary

The Developer/Analyst (Digital Scholarship) builds and manages applications to support UVic Libraries’ digital scholarship initiatives. The successful candidate will work with a variety of library and campus stakeholders to analyze requirements and develop systems to support preservation and enhanced discovery of the Libraries’ unique digital collections; to support the storage and preservation of UVic research outputs including complex software environments; to integrate the Libraries’ unique digital collections into collaborative research environments; and, to permit the collection and integration of user-contributed data in library discovery interfaces. Responsibilities may also include implementing and administering a variety of third-party and in-house digital library applications, and UNIX server administration.

Our normal business hours are between 8 AM and 5 PM; system maintenance may be performed off-hours and major issues are responded to on a 24/7 basis.

3. Key Responsibilities and Expectations

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<th>Key Responsibilities</th>
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| Digital library development 30% | 30% | - Web and application programming in support of both open source and commercial digital library and digital scholarship platforms  
- Working closely with library and faculty stakeholders to analyze digital scholarship project needs and to propose technical solutions  
- Support and troubleshooting for platform users that may include direct user training |
| Linked data development 30% | 30% | - Custom programming to support linked data and RDF production in the library  
- Selection, implementation and troubleshooting of applications to support the work of linked data production including named entity recognition tools, visualization tools, and authoring tools  
- Triple store implementation and management and mastery of the SPARQL query language  
- Implementation, administration, and upgrades of complex digital library and digital scholarship platforms including a mix of commercial and open source applications  
- Unix server administration including configuration, upgrades, patches  
- Data migration and data cross-walking |
| Backup and support | • Occasionally this person will be asked to provide support for other library systems, to cover absences and vacations, or in times of heavy work in other areas. |

### 4. Classification Factors:

(a) Independence of action, authority and decision making:

This individual will engage in a great deal of self-directed learning and problem solving. The platforms under his/her responsibility are new to UVic Libraries, and digital scholarship constitutes a major growth area for us. These are sophisticated and powerful software platforms that will run a significant number of diverse services.

Programming and development activities require a great deal of personal and professional judgement, and there are few guidelines in place to direct this work. Each new application will require research, stakeholder consultation, planning, design, execution, assessment, and maintenance.

This position will be required to develop library-wide policies related to the platforms under her/his jurisdiction. The position will develop and document best practices and procedures for the use of other library staff. The position will participate in policy development for the library systems department under the leadership of the Head of Systems and will help to develop policies around infrastructure access for faculty and students in conjunction with the Associate University Librarian for Digital Scholarship and Strategy and with the Libraries’ senior management team.

Typical examples of decisions expected of this position would be:

- Deciding on the specific hardware/software solutions to be used for a given project
- Scheduling and prioritization of duties/responsibilities
- Communication with library stakeholders, central systems, vendors, faculty members and other departments on campus

Final approval of major changes in processes or systems that affect the department as a whole (or multiple external departments) would typically require management involvement.

(b) Accountability – scope and impact:

Server and network security is paramount in order to protect the integrity of our infrastructure, and to ensure that patron information is kept private. Outages and security impacts can be major to the unit and division, and security flaws can have a moderate impact on the university where the network is compromised behind the firewall, or where personal information may be exposed. This position is accountable for ensuring the security of the hardware, equipment and information are maintained. These responsibilities are shared with other library systems staff.

Server downtime impacts patron service and results in work stoppages among library staff and other who rely on our platforms for day to day work. This position is responsible for anticipating, responding to and managing impacts to service delivery. This responsibility is shared with other library system administrators.

(c) Supervision given and received:

This position holds no formal supervisory responsibilities, but is expected to provide informal direction and guidance or related systems orientation and training to other staff in the library, as required.
Budget, Financial & Material resources:

This position will be working within budget guidelines that are handed down from the AUL DSS and the Head of Systems. There is no signing authority for purchasing, however the position will be expected to identify system specifications, obtain quotes from service providers, and make recommendations for equipment and software purchases.

This person will make purchasing recommendations for software and hardware.

Problem-Solving

Most of the work in this position will require significant problem solving and research. Beyond basic best practices for server security, very few policies are in place to guide platform administration and development. This position will be required to resolve problems that are complex and variable, requiring interpretation, evaluation and adaptation of procedures, policies and precedents and to develop new methods and procedures.

Summary of qualifications:

Bachelor’s Degree in Computer Science or related discipline and 3 years of development experience in a Unix/Linux environment. In addition:

- Demonstrated UNIX/LINUX systems administration skills including experience with csh/bash and a working knowledge of server and network security
- Java, Python, PHP and CSS programming
- Experience designing and administering MySQL databases
- Working experience with the Drupal content management system
- Web server configuration and management (Apache, Tomcat)
- Working knowledge of authentication integration such as LDAP, CAS, Shibboleth, Active Directory

The following will be given preference:

- Demonstrated communication skills, including the ability to produce clear, detailed and precise documentation
- Demonstrated research and problem-solving skills
- Knowledge and experience relating to semantic web technologies, including RDF and SPARQL
- Experience implementing and managing an RDF triple store
- Proficiency working with XML and related technologies
- Knowledge of digital library platforms including Islandora, Fedora, or DSpace
- Experience with digitization or digital object preservation
- Experience with search and indexing software such as Apache Lucene/Solr

Date of Submission: April 8, 2015

Signature of Responsible Manager: ____________________________

Lisa Goddard, Associate University Librarian for Digital Scholarship and Strategy