## Library and Information Careers: Emerging Trends and Titles

San Jose State University 2011

## Methodology

Indexed by responsibilities and required skills over 500 job listings from:

ALA, SLA, LITA, LibGigJobs, monster.com, indeed.com, idealist.org, Library Crossing, and other sources during the months of June and July, 2011

Categorized the job listings as traditional or emerging titles (i.e., new within last few years)

Compiled the most cited skills and responsibilities for traditional and emerging title categories.

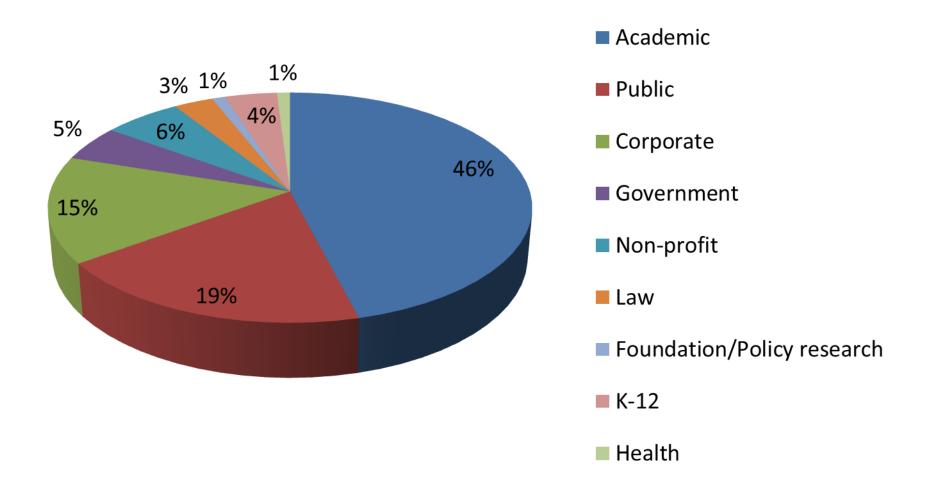
## Overview of Findings

- 63% explicitly stated MLS or MLIS as a requirement Requested skills include: knowledge of metadata standards for digital content, knowledge of integrated library systems, experience in teaching/instruction, knowledge of Web 2.0 applications, and experience in reference.
- Metadata Librarian, Business Intelligence Analyst, Cataloging & Metadata Services Librarian, Digital Initiatives Librarian, E-Learning Librarian, Information Systems Librarian, Records Management Specialist, and Social Skills/Media Liaison are among popular emerging titles

## Overview of Findings

- 26% of listings are tech-centered jobs (i.e., working chiefly with networks, metadata, digital assets, website management, database management)
- 21% of listings require teaching/instruction
- 26% of listings are management-level jobs (head, director, manager, assistant dean, dean, branch manager, curator, chief, provost)
- 30% of listings require reference skills
- 11% of listings require statistics/analysis skills

## **Types of Information Centers**



### **Traditional Job Titles**

Skills or responsibilities in **bold** indicate those most frequently-occurring in job postings

#### Reference and Instruction - Academic

Responsibilities	Skills/Knowledge Required
In-person and virtual reference	Information literacy
Technology implementation, problem- solving and applications	Research skills
Library orientation and bibliographic instruction	Communication skills
Liaise with other campus departments	Strong service orientation
Instruction and instructional design	Web 2.0 technologies, HTML, CSS, XML, SQL, JavaScript, PHP, Perl, course management systems, podcasting, blogging, InDesign, Dreamweaver, Drupal
Develop educational and promotional materials and activities	Project management/leadership
Collection development	

#### **Reference -** Public

Responsibilities	Skills/Knowledge Required
In-person and virtual reference	Research skills
Collection development	Communication skills
Programs and Outreach	Strong service orientation
Train and supervise volunteers and staff	Professional experience
Provide technical assistant to patrons	Strong computer and technology skills
Readers' advisory	Familiarity and comfort with social media
Cataloging	Classification and filing schemes
Prepare booklists, subject bibliographies	Multi-tasking and working with time constraints
Take interlibrary loan requests	Ability to make effective decisions
Update library webpages	Ability to collect, organize and evaluate data

### Management- Academic and Public

Responsibilities	Skills/Knowledge Required
Management/Personnel/Administration	Supervisory and administrative experience
Develop and implement library policies	Project management
Library advocacy and promotion	Communication skills
Strategic planning	Staff development
Facilities management	Fiscal planning and management
Budgeting and fundraising	Strong service orientation
Preparing reports	Knowledge of current issues and trends in technology

### Cataloguer – Academic and Public

Responsibilities	Skills/Knowledge Required
Perform original, complex, and copy cataloging	OCLC Connexion, AACR2-R, Library of Congress Subject Headings, MARC formats and non-MARC formats such as EAD, Dublin Core
Maintain databases	Cataloging nonprint formats: video and sound recordings, kits, maps, monographs
Resolve cataloging issues	Metadata principles, cataloging trends and technologies
Create processes, policies and guidelines	Bibliographic utilities
Bibliographic records management	Integrated library systems
	Link resolvers
	Research skills

### **Curator** – Academic/Public

Responsibilities	Skills/Knowledge Required
Collection development	Cataloging and metadata
Create and maintain web pages	DACS, EAD, XML, MARC-AMC
Accession and catalog artifacts	Additional degree/background in subject areas relevant to repository
Prepare collections and exhibits, write descriptive narratives and finding aids	Strong written and communication skills
Develop learning and research resources for collections	Research
Works with faculty, students, and outside researchers	
Participate in digital projects	

#### **Youth Services Librarians - Public**

Responsibilities	Skills/Knowledge Required
Programming for children and young adults	Materials for children and young adults
Collection development	PC literacy/computer and technology skills
Reference and reader's advisory	Web 2.0 and social networking concepts
Liaise with local schools	Knowledge of school curriculum
Grant writing	Strong communication skills
Community outreach	Service orientation

### School Librarians/Media Specialists (K-12)

Responsibilities	Skills/Knowledge Required
Collection management	Communication skills
Incorporate technology into instruction	Knowledge of current school curriculum
Budgeting and fundraising	Knowledge of informational databases
Collaborate with teachers to plan learning activities	PC literacy
Library instruction	Research techniques
Update library automation system	Materials for children and young adults
Cataloging	State certification
Reader's advisory	

## **Emerging Job Titles**

Skills or responsibilities in **bold** indicate those most frequently-occurring in job postings

#### **Emerging Technology**

### (Emerging Technology Services Librarian)

Responsibilities	Skills/Knowledge Required
Web-based instruction	Learn and assess new technologies
Lead peer-to-peer instruction programs for peer advisors	Project management (websites and integration of new technologies)
Design, maintain, manage library website	Integrated library systems, content management systems and learning management systems
Liaise with library-wide committees, task forces and teams	Web accessibility issues
Set technology infrastructure direction	User-oriented documentation

#### **Digital** – Academic

(Digital Archivist, Digital Library Metadata Coordinator, Digital Collections Coordinator, Digital Initiatives & Integration Librarians, Digital Library Architect, Digital Learning Services Librarian, Digital Repositories Coordinator, Digital Services Technician, Digital Technologies Development Librarian, Digital User Experience Librarian)

Responsibilities	Skills/Knowledge Required
Manage the CONTENTdm database	Experience with digital collections, metadata standards such as Dublin Core, METS, MODS and PREMIS
Create and oversee cataloging of library materials	Knowledge of CONTENTdm application
Gather, analyze, and report statistics on e- resources and services usage	Java, PHP, Python, Ruby, SQL, XHTML, HTML, CSS, XML, and/or XSL
Provide reference services	Experience with web analytics, usability testing, or other user research
Develop and manage digitization projects	
Provide digital applications support	
Assist in metadata training	

#### **Digital** - Corporate

(Digital Image Control Specialist, Digital Imaging Librarian, Digital Library Architect, Digital Media Librarian, Digital Product Manager)

Responsibilities	Skills/Knowledge Required
Input metadata into digital asset management systems	Experience with digital collections, metadata standards such as Dublin Core, METS, MODS PREMIS, Open URL, ORE, OAI- PMH, DOI
Data collection and analysis	Taxonomy development, formal ontologies, thesauri, and other controlled vocabularies
Manage large scale research projects	Digitization protocols and copyright
Support digital sales and marketing channels (Internet, mobile, eCommerce platform deployment)	Web 2.0 technologies: XHTML, HTML, CSS, XML, and/or XSL, RDF, SQL
Lead digital library implementation	Experience with XMP and/or metadata/taxonomy standards

# **Distance/Virtual** (Distance Education Librarian, E-Learning Librarian)

Responsibilities	Skills/Knowledge Required
Update library's website, catalog, Intranet and external Web application	Information architecture and interactive design
Update site maps, wire frames and content maps	Web 2.0, digital multi-media technologies and metadata standards
Develop and implement information literacy program	Familiar with ACRL Information Literacy Standards
Liaise with other departments	Demonstrated teaching ability
Monitor emerging technology trends	Strong interpersonal, oral, written and online communication skills
Provide in-person and virtual reference	Strong service orientation
Provide information literacy instruction	
Collection development	

# Electronic Resources (Electronic Resources Librarian)

Responsibilities	Skills/Knowledge Required
Receipt, processing and management of electronic resources including ERM systems	Acquisitions best practices
Managing accessing and licensing issues	Link resolvers
Develop electronic resources policies and procedures	Troubleshooting access issues
Work with vendors of information resources	Obtain, compile and analyze usage data
Analyze and report use statistics	HTML, PHP, MySQL and database management programs
Create print and electronic research guides and bibliographies	OpenURL resolvers, usage statistics

# Electronic Services (Electronic Services Librarian)

Responsibilities	Skills/Knowledge Required
Evaluate and track license agreements	HTML, CSS, PHP, and MySQL
Supervise and train Web Support Librarian and staff	Metadata creation and standards
Assist with database purchases and renewals	Integrated library systems and library management systems
Conduct user satisfaction surveys	Library of Congress cataloging rules and subject headings
Create and update Library web pages and ILS web interface	Web development skills and database design
Maintain database and journal access	
Administer and update WorldCat catalog	

#### Metadata

## (Metadata Librarian, Metadata & Catalog Librarian, Metadata Quality Coordinator)

Responsibilities	Skills/Knowledge Required
Select metadata schema, data elements, thesauri	Advanced relational database skills, including database design and programing
Formulate and document library policy and procedures for metadata use	Data management/curation, including data standards, preservation, metadata, data retrieval and use issues
Catalog library materials, including monographs, continuing resources, media, maps, ETDs and special collections	Knowledge of MARC, AACR2-R, RDA, LC classification, and at least one non-MARC metadata scheme such as Dublin Core
Train staff	Familiarity with controlled vocabularies (such as LCSH, AAT, LCTGM, and TGN)
Liaise with other departments	GIS software and geo-coded data
Updates and monitors OCLC cataloging system and the ILS	Experience with Integrated Library Systems

# **Systems** (Systems Librarian, Systems & Web Librarian, Systems & Metadata Librarian)

Responsibilities	Skills/Knowledge Required
System administration for the library's ILS	Troubleshooting and analytical skills
Customize interfaces (both database and ILS)	Technical experience with an integrated library system
Research and implement appropriate new technologies	HTML, PHP, Perl, JavaScript, XHTML, CSS, XML and XSLT
Maintenance and upgrades of library hardware and software	Project management
In-person and virtual reference	Ability to quickly learn new technologies
Manage technology budget	Fluency in Oracle/SQLPlus; strong knowledge of MARC, MARCXML, and EAD exchange formats
Create and maintain digital repositories	Experience with social networking technologies
	Knowledge of library technology protocols such as OpenURL, OAI-PMH, Z39.50, SRU/W
	System administrator experience using Solaris, UNIX or LINUX

# **Taxonomist** (Media Taxonomist, Taxonomy Analyst, Taxonomy Specialist)

Responsibilities	Skills/Knowledge Required
Manage and maintain data models, taxonomies and thesauri	Experience in developing taxonomies, formal ontologies (OWL), thesauri and other controlled vocabularies
Migrate and transform metadata	Creating and implementing metadata schemas and models
Lead taxonomy, content management, knowledge management, and information architecture projects	Familiarity with metadata and data management standards, tools and technologies (XML, XSLT, RDF, SQL)
Implement taxonomies for use with navigation systems, search engines, and search engine optimization	Knowledge of taxonomy management tools (SchemaLogic, WordMap, Sharepoint Solutions Taxonomy Management)
Develop governance models, procedures, and policies	Adapt taxonomy and metadata models to enhance search results and usability

#### **Information Architect**

Responsibilities	Skills/Knowledge Required
Create wireframes, process maps, functional specifications, prototypes and other artifacts to describe the intended user experience	Ability to research, understand and organize specialized content
Work collaboratively with interaction designer to develop interface functionality	Architecture/flow diagramming, wireframing and sketching skills
Define site architecture and navigation	Strong knowledge of user interface design processes and methodology
Lead user pilots to demonstrate concepts, test usability and prove ROI	Excellent writing, speaking, presentation and interpersonal skills
Research competitive websites, existing and past web projects and consumer information	Knowledge of architecture-related software (Illustrator, Visio) and familiarity with design software (Photoshop, Fireworks)

# **Business Intelligence** (Business Intelligence Analyst, Business Intelligence Consultant)

Responsibilities	Skills/Knowledge Required
Maintain proprietary research databases (Microsoft SharePoint collaboration sites and CRM application)	Knowledge of relational and associative data model structures
Prepare competitive market research, including prospective client or industry analysis, and presentation of internal data and trends	Understanding of data modeling, data integration
Profile and quantify data from multiple sources	Strong analytical skills and experience with business processes/concepts
Establish processes for tagging data	Experience with column-based databases (Oracle, SQL Server, Sybase IQ)
	Ability to thrive in an electronic environment and utilize technology to deliver information

# User Services (User Services Librarian, User Services Specialist)

Responsibilities	Skills/Knowledge Required
User liaison	Service orientation
Create Web-based tutorials and subject guides	Ability to learn new technologies
In-person and virtual service	Comfort with social media
Outreach and promotion	Excellent interpersonal communication skills

# Web Developer (Web Developer, Web Development Specialist, Lead Web Developer)

Responsibilities	Skills/Knowledge Required
Development of website features using HTML, CSS, PHP	Experience with user interface design
Maintain existing websites	Fluent in JavaScript, HTML, XML, XSLT, SQL, CSS, Drupal
Designs, develops, tests, and maintains web applications, databases, and web services	Project management
Manage multimedia library for social media/website(s)	Knowledge of benchmark metrics (Google Analytics)
Monitor site security	Photo and video editing; image optimization for Web
	Web 2.0 functions(blogs, wikis, collaborative software, tagging)

# **Research** (Research Librarian, Research Manager, Research Analyst)

Responsibilities	Skills/Knowledge Required
Creates, develops, and implements fully integrated data collection plans	Project management experience
Prepare written output in a variety of formats including white papers, blog posts, presentations, and webinars	Knowledge of statistical and web programming/design software including SAS, SPSS, Java, C/C++, Visual Basic, C#, Perl, PHP, HTML, Python, JavaScript
Coordinate special research projects	Demonstrated knowledge of research principles, design and strategies, analyses and data interpretation
Gather necessary raw data using a broad spectrum of sources	Strong interpersonal, oral and written communication
Organize, analyze, and synthesize findings into targeted end products	Ability to build and manage cross- functional work teams and projects
Maintains electronic resources, access and passwords	Versed in online research sources

#### **Records Management**

(Records Manager and Archivist, Records Management Specialist, Records Information Manager)

Responsibilities	Skills/Knowledge Required
Implement and manage records retention policies and schedules	Knowledge of archival principles, practices and records management infrastructure
Advise on preservation and storage	Indexing and abstracting practices
Catalog materials	Database development skills
Prepare grant applications	
Collection and inventory management	
Train staff	

#### **Social Media**

#### (Visual Information Specialist/Social Media)

Responsibilities	Skills/Knowledge Required
Design and maintain web properties and digital media initiatives	Knowledge of PHP, HTML, JavaScript, PERL, Objective-C, AJAX, C++, HTML, CSS, RRSS, XML, Oracle, SQL
Maintain and update websites, integrating social and interactive media	Understanding of search engine optimization. Familiarity with mobile devices and programming (Android, iOS)
Identify and develop new media technology trends	Proficiency in social media technologies and content management systems
Advise on methods for delivering digital technology information	Programming or coding
Prepare and present reports and briefings	Interpersonal communication
Provide technical leadership on group projects	

# Knowledge Management (Knowledge Manager, Knowledge Management Specialist)

Responsibilities	Skills/Knowledge Required
Archive and manage documents	Working knowledge of relational databases, data aggregation, data visualization
Perform all custody and control activities for both print and electronic files	<b>Excellent written and interpersonal communication</b>
Create cataloging system/file structure	Ability to work in a team environment
Manage information collection methodologies for information collection and document system implementation	