



Levels of Competency

As individuals begin their career in map librarianship and continue along their career journey that they will gain new experiences and skills. In addition, they may also be required to, or volunteer to, take on new responsibilities due to an evolving organizational or technological infrastructure. Therefore, with change come new levels of competency in one or more areas of his/her position. With this in mind we have identified three Librarianship areas of competency in this document in order to further guide expectations along the continuum of experiences and skills needed to be successful in our profession. A specific individual or position may require competencies in one or more of the three areas.

Level 1 - everyone needs to know, and at the entry level needs to master in their first 1-2 years

Level 2 - most will need to know, but may depend on local circumstances

Level 3 - advanced level of specialization: very dependent on local user needs, departmental staff and organizational structure

Please note that the specific necessary skills listed in the following three Librarianship sections below are weighted according to the Levels above based on the definition provided for each. A Level designation is provided at the end of each bulleted skill/experience item.

I.D. Technological Applications

I.D.1. Map Library Computer Resources

Computer Lab Maintenance

Ability to provide basic maintenance and upkeep for computer workstation hardware and software **[Level 1]**

Knowledge of digital mapping (GIS) and scanning software and standards **[Level 2]**

Spatial Data Collections

Development of infrastructure to store, preserve, and access spatial data **[Level 3]**

Serve as project manager (for example, building a spatial data repository, or leading a map scanning project) **[Level 2]**

Ability to prioritize and decide what needs to be done, when, and by whom **[Level 2]**

Ability to evaluate other GIS projects/services provided in the organization to prevent duplication of services **[Level 2]**

Fiscal Management

Ability to manage multiple GIS related budgets, such as those for hardware, software, data, staffing and supplies **[Level 2]**

Fundraising

Participation in fundraising activities **[Level 2]**

Ability to apply for appropriate grants that would fund projects relevant to the discipline's ongoing work **[Level 3]**

II.A.2. Marketing and Outreach

Communications and Event Planning

Ability to plan and organize events such as GIS days, open house, etc. **[Level 1]**

Presentation skills for demonstrations of GIS **[Level 1]**

Web development skills for promotion of GIS services, GIS newsletters, etc. **[Level 1]**

Assessment skills to identify current and potential GIS users and partners **[Level 2]**

Collaboration skills for identifying potential internal and external partners **[Level 2]**

II.B. Resource Management

II.B.1. Data Acquisition

Broad knowledge of spatial data resources

Government resources, including local, state/provincial, national and international **[Level 1]**

Commercial resources **[Level 1]**

- Vendors: local, regional, global

Research and other user-generated resources **[Level 1]**

- Consortia such as ICPSR
- Research projects that generate data appropriate to the organization

- Knowledge of licensing issues and acquisition details peculiar to data **[Level 2]**
- Broad knowledge of data quality, data types, data storage requirements **[Level 2]**
- Knowledge of map scanning and digitization processes for use in GIS **[Level 2]**
- Knowledge of collection assessment techniques for data collections **[Level 2]**
 - Knowledge of collection development/selection principles
 - Knowledge of use statistics collection

II.B.2. Data Discovery

Knowledge of spatial metadata standards and issues

- Ability to promote metadata standards and educate users regarding metadata **[Level 1]**
- In-depth knowledge of data discovery tools and data repositories, including The Web, academic/ research community, and offline data resources **[Level 1]**
- Ability to implement metadata standards in typical discovery tools such as the OPAC **[Level 2]**
 - GIS metadata and data portals

Hardware

Ability to perform basic hardware maintenance **[Level 1]**

Evaluate/provide access to GIS-related tools such as GPS units **[Level 2]**

II.C.2. Instruction

Ability to develop and deliver formal introductory GIS instruction sessions and/or workshops **[Level 1]**

Ability to conduct one-on-one consultations **[Level 1]**

Knowledge of instruction options and ability to manage/facilitate access to commercial options for instruction (e.g., ESRI Virtual Campus course access codes) **[Level 1]**

II.C.3. Research Consultation

Working knowledge of GIS software - preferably more than one GIS **[Level 1]**

Broad knowledge of data resources and discovery tools **[Level 1]**

Working knowledge regarding data organization and data manipulation **[Level 1]**

Working knowledge of presentation techniques **[Level 1]**

Working knowledge of reference techniques **[Level 1]**

Working knowledge of GIS project planning and implementation **[Level 1]**

III.B. Resource Management

Cataloging standards

Stay abreast of national/international standards and apply them consistently

[Level 1]

Develop local practices and be able to adjust to locally-needed changes or situations

[Level 2]

Cataloging Resources

Learn, understand, and appropriately apply cataloging rules, rule interpretations and subject analysis techniques **[Level 1]**

Identify and use appropriate hardcopy resources for cartographic materials cataloging in all formats **[Level 1]**

Identify and use appropriate online resources for cartographic materials cataloging in all formats **[Level 1]**

Apply classification schedules/schemes and create call numbers **[Level 1]**

Apply accurate subject headings using LCSH and/or other thesauri

Create, where needed, appropriate local cartographic materials cataloging guides, project-level documents, etc. to document local practices **[Level 2]**

Knowledge of the creation and distribution systems for cartographic resources

Understand map production and reproduction processes and types **[Level 1]**

Understand the roles of map publishers, distributors, cartographers and other

- Understand map projections and correctly apply projection information when needed **[Level 1]**
- Understand the coordinate system and apply correct latitude/longitude values and formats when given on the map **[Level 1]**
- Understand the coordinate system and apply correct latitude/longitude values and formats when supplying coordinates **[Level 2]**
- Interpret and then provide correct information about the physical characteristics of cartographic items **[Level 1]**
- Know and apply the correct techniques for measuring and correctly provide measurements in the bibliographic record **[Level 1]**

Determine the correct form of heading for personal and corporate names and/or uniform titles and create correct forms of headings when needed **[Level 1]**

Train for, and actively participate in, Cooperative Cataloging Programs as a means of "contributing to the greater good" and maintaining one's skills **[Level 3]**

Metadata creation

Understand the theory and practice of metadata schemes (chiefly U.S. Federal Geographic Data Committee (FGDC) and Dublin Core (DC)) **[Level 2]**

Create GIS and other metadata **[Level 2]**

Provide metadata for institutional repositories and digital libraries **[Level 2]**

III.C. Information Services

Internal cataloging/metadata information needs

Measure quality and quantity of cataloging output **[Level 1]**

Produce reports and recommendations to support organizational needs **[Level 1]**

III.D. Technological Applications

Cataloging-specific technologies

Learn and apply supportive technologies including macros and similar time-saving techniques, local integrated library system (ILS) cataloging features and functions, and other special technologies as needed **[Level 1]**

Participate in the selection and testing of new ILS **[Level 1]**

Metadata-specific technologies

Stay abreast of metadata applications and uses **[Level 1]**

Understand the relationship of interoperability or crosswalks between metadata standards **[Level 2]**

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Web Pages of Interest

General Sites:

Map and Geography Round Table (MAGERT) of the American Library Association / webmaster: Colleen Cahill. <http://www.ala.org/ala/magert/magert.htm>

Western Association of Map Libraries' Map Librarian's Toolbox / Linda Zellmer. <http://www.waml.org/maptools.html>

MAGERT Electronic Publication No. 1: Helpful Hints for Small Map Collections. <http://www.ala.org/ala/magert/publicationsab/larsg.htm>

USGS. Maps, Imagery, and Publications <http://www.usgs.gov/pubprod/>
Federal Depository Library Manual.

http://www.access.gpo.gov/su_docs/fdlp/pubs/fdlm/

A Guide to the Cartographic Products of the Federal Depository Library Program (FDLP) <http://www.ala.org/ala/magert/publicationsab/fdlpguide.cfm>.

Map Imaging Service Providers. <http://www.ala.org/ala/magert/publicationsab/service.cfm>.

Helpful Hints for the Paperless Map Librarian. <http://www.ala.org/ala/magert/publicationsab/allen.cfm>.

Map Cataloging Sites:

Cataloguer's Toolbox <http://staff.library.mun.ca/staff/toolbox/index.html>

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