We’re into the second phase of the cycle at this point: creation of the list (see figure 1, page 18). This is the hard part, so strap on your hard hats. At this point, the task force should have the following data on hand:

- Purpose statement for the competencies list
- Information from the members’ literature review and discussions
- Scope of the competencies list
- Some initial competency descriptions based on existing requirements and documents
- A list of competencies that might be included and associated ideas and concerns from staff and management brainstorming sessions
- Information from any staff surveys

The competency task force should try to draft a rough list of competencies during this stage of the process. This list will most likely be quite rough, and that’s perfectly fine. What you’re looking for here is a starting point, a foundation—not perfection. As one way to begin to narrow down your list, consider the standards for competencies set by Marshall, Woodson, and Beck: competencies should all be “objectively measurable, observable and demonstrable, and improvable by training.” Keep those three criteria in mind as you progress through your gargantuan list of suggested competencies. Do members of the task force collectively agree with these criteria, and if so, does each competency you decide to document meet all three criteria?

Step 1: Create Some Rough Categories

Look at the competencies listed by the staff and at some categories in other libraries’ lists, and take note of what categories are emerging as those the library will want for its own list. Don’t worry at this point about qualitatively analyzing each competency that has been suggested. List everything that has been gathered into one list and broken down into categories. You should ask, “Which categories should we use?”

One interesting way of looking at competency groupings comes from Jens Thorhauge, who identifies three basic types of learning needs in libraries:

- Lack of basic technological and media skills,
- Appropriate handling of the changing needs of users in the digital age, and
- The ability to handle strategic development, incorporating new services, planning and implementing organizational and marketing changes.

These three areas may provide you with a rough beginning for your competencies list. Just remember that before staff members can begin to deal with new services, they need to master the basic technology skills required for your current services, so be sure to include all of these and not just the more advanced aims.

Various librarians and other organizations have used the following mechanisms to categorize their technology competencies. Perhaps one of these will jump out as one that will work at your library.

Professional vs. Personal

Some libraries have broken competencies out into two distinct groups: personal and professional. Personal competencies are attitudes, values, and personality traits (such as “Copes well with change” or “Treats coworkers in a professional manner”). Professional competencies are skills and knowledge specifically required for a position, things staff members have been trained in through their professional individual education to do (such as “Uses Web-
based search engines to strategically and efficiently search for information,” or “Uses RSS [really simple syndication], electronic discussion lists, and journals to keep up with current news and best practices in the profession.”).

Service
Some libraries have broken down competencies by the services offered, including book check-out, virtual reference, reference, and cataloging, so that staff members can choose those functions that they perform and fit those competencies.

Device or Software
Organize the competencies by the activity device (desktop computing, network, printing) or software category (Internet browsers, search engines, Microsoft Office).

Goals
The competencies established by the Reference and User Services Association (RUSA) are organized by goals (e.g., “A librarian provides high quality services by carefully analyzing both information sources and services”), each of which then includes a list of several strategies, (e.g., “Uses electronic and printed media to connect users with highly recommended, carefully selected sources for topics of greatest interest to primary users”). Your library’s competencies list could begin with a list of goals and then identify the individual competencies that help meet those goals.

Table 1 (see page 31) shows ten examples of the competency categories used by several organizations, just to give you a smattering of ideas. As you can see from the list, some technology competencies lists get very specific in the category headings, while others remain rather vague and general. Ultimately, the task force will decide what works best for your unique library situation.

Step 2: Consider These “Must-Have” Areas

Instead of attempting to provide you with an exhaustive list of all the possible technology competencies to include, it seems more helpful to include some samples of what others have done (see Appendix 1), the process by which you can discover your organization’s unique competencies, and the list that follows. This is a list of “must-haves” that I came across in my research. I feel that every organization should have, or at least strongly consider having, these items in their list of competencies. I would like to suggest several areas of competencies that are important for consideration, and in my experience, are often overlooked.

Technology Terms Glossary
Including a glossary with the technology terminology used not only in the competency descriptions, but also on the job day to day, will greatly improve the staff members’ abilities to communicate effectively with technical support staff, the public, and each other.

Planning and Evaluating
Include competencies that address the need for staff members to evaluate and plan for new information technology systems. These competencies can range from line staff members being able to evaluate two competing databases on a particular subject, to all library workers being able to evaluate a new integrated library system (ILS), to management being able to plan for the implementation of a new public computer management system.

Helping Remote Users
Include competencies necessary for helping serve the library’s remote users—the users who access the library’s resources from home and rarely, if ever, step foot in the physical library building, which is, incidentally, the fastest growing population for every library. These competencies may include techniques and skills necessary to help people with the library’s Web-accessible resources, search strategies, and technical troubleshooting remotely.

Dealing with Change
This is a challenge for all of us, but the ability to cope with an ever-changing technological landscape is a competency that is requisite of, in my opinion, each and every staff position in any library.

Get Specific about Circulation
As the bulk of library staff members deal with circulation, not reference, be sure to focus on the tasks required of circulation staff and the skills required to complete those tasks. What does it take to update a borrower record, check items in and out, or help users place holds?

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Information professionals of the future need to have the spirit of the pioneer. They need to be willing to accept that we cannot predict what people are going to be doing, how they are going to be doing it, or with whom.

José Marie Griffiths, “The New Information Professional”

Once you’ve created some categories, start plugging in the competencies that you have gathered from all your sources up to this point. New category needs will emerge as you find gaps, and other categories may combine as similarities are found. Remember—everything is flexible. The task force is still merely trying to build a draft at this point.
Table 1: Sample Technology Competency Categories

<table>
<thead>
<tr>
<th>Library</th>
<th>Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Alberta Librarya</td>
<td>Computer Hardware, Library and Office Equipment, Internet, Email, ILS and Computer workstation, Software, Operating System, Database Search, Networking, Security, Troubleshooting, Maintenance, Responsible/Ethical Use</td>
</tr>
<tr>
<td>California Library Associationb</td>
<td>Terminology, Hardware (Parts of Your Computer, Printers, Photocopiers, Telephones, Fax Machines), Software (Word Processing, Spreadsheet, Multimedia, Web Browsers, Email, Operating System, Files and Folders), Security, Troubleshooting, Library Resources, Search Skills, Public Computers</td>
</tr>
<tr>
<td>Core Competencies of Music Librariansd</td>
<td>Professional Ethos, Training and Education, Reference and Research, Collection Development, Collection Organization, Library Management, Information and Audio Technology and Systems, Teaching</td>
</tr>
<tr>
<td>The Library Networke</td>
<td>Basic Workstation Start-Up, Printers, Computer Security, Crosstalk/SmartTerm/QVT-Term (computer management software), Web Browsers, Windows Operating System</td>
</tr>
<tr>
<td>Maryland Teacher Technology Standardsf</td>
<td>Information Access, Evaluation, Processing and Application; Communication; Legal, Social, and Ethical Issues; Assessment for Administration and Instruction; Integrating Technology into the Curriculum and Instruction; Assistive Technology; Professional Growth</td>
</tr>
<tr>
<td>Minnesota Career Renewal for Library Employeesg</td>
<td>For Reference Staff: Searching, Telephone &amp; E-mail, Knowledge of sources For Systems &amp; Information Technology Staff: Software Applications, Operating System Support, Hardware Support, Troubleshooting, Web Page Management, Internet, Telecommunications, Philosophy and Management, Integrated Online System, Training</td>
</tr>
<tr>
<td>University of Alabama University Librariesh</td>
<td>Overall, Public Service, Technical Service, Acquisitions, Cataloging, Metadata, Technology, Communications, Initiative, Flexibility, Leadership, Accountability</td>
</tr>
<tr>
<td>University of Connecticut School of Law Libraryi</td>
<td>General, Operating System, Antivirus Software, Internet/Browser, Email, Printers</td>
</tr>
<tr>
<td>Western Council of State Librariesj</td>
<td>Computers &amp; Library Equipment, Systems/Networking, Troubleshooting/Maintenance, Security/ Privacy, Library Systems Automation, Internet, Instruction, Technology and Communication Discount Programs</td>
</tr>
</tbody>
</table>

Sources: See notes below. All URLs accessed January 2007.


Specific Software and Hardware
It’s easy to think about desktop computers and the software we deal with on a regular basis (word processing, e-mail, and Web browsers) and forget about all the other technology we deal with every day. Don’t forget to think about the competencies required to use all the software and hardware systems in the library: the various incarnations of the library’s ILS, computer-reservation software, print-management software, self-check-in and self-checkout machines, projectors, cameras, audio and video recorders, RFID (radio frequency identification) systems, sorting systems, wireless equipment, blogs, wikis, and so on.
Virtual Reference
If the library offers virtual-reference services, make sure that the competencies necessary for these services are listed separately for the staff members who provide these services.

Public and Staff Views
Include specifics about technologies that staff members need to know how to use from both the staff and the public sides (such as the ability to effectively search both the public-facing OPAC and the staff interface).

Policies and Law
Include competencies that address local policies and administrative documents as they relate to technology, communication use, the public, and staff behavior and abilities. Also include competencies that address local, state, and national law as it relates to technology, like CIPA (the Children’s Internet Protection Act), RFID laws, and copyright laws.

Technology and Societal Issues
Nitecki, in “Competencies Required of Public Services Librarians to Use New Technologies” from Professional Competencies—Technology and the Librarian, writes about the need for public librarians (but it can be expanded beyond that, certainly) to “understand the societal issues that develop from the information technology.” Nitecki continues:

Everyone understands that librarians do not live—and should not live—in vacuums. Yet the average library professional is not keeping themselves informed about and actively involved in, such changing issues as copyright, privacy, database security, the private sector v. the public sector information roles, the right of all citizens to a basic level of information regardless of their ability to pay, equality of access that is not geographically, politically, or socially determined, and the freedom to intellectually pursue the information you want or need on an electronic system.5

These societal issues related to technology are some that the library may want to include in its competencies list:

- **Ergonomics:** Include competencies that address the ergonomic needs of your institution’s staff, such as proper chair fitting, judging desk height, avoiding repetitive stress injuries, and arranging correct lighting for using computer screens.

- **Focus on the User:** Incorporate competencies about evaluating technologies to enhance services and resources for the end user and being able to help users use these technologies because that is, after all, what all of this is about.

- **Continuous Learning and “Keeping Up”:** Include a competency statement that addresses the need for staff members to look for opportunities to learn, whether formal or informal, in an effort to keep up to date with the needs of the job. Including other competencies needed to keep up with what’s going on in the library world—such as such as how to use an RSS aggregator to receive news feeds, or how to participate in an online Webcast or teleconference—can also help to address the need for staff to not only learn what’s here in front of them now, but also to be on the look-out for new things all the time. Keeping up with what’s going on in technology from week to week, month to month, is a professional-development challenge faced by every librarian in today’s workplace. There are a lot of ways to keep up: electronic discussion lists, blogs, online and print journals, the wealth of free Web-based audio and video content as well as podcasts available today, and other e-learning opportunities (both free and for-pay). For a good overview of some of these options and how to get started with “keeping up,” read Rachel Singer Gordon and Michael Stephens’s article “Keeping Up with Keeping Up” from the October 2006 issue of Computers in Libraries.6

We talk about learning organizations, and it seems to me we need to develop learning teams, but increasingly we need to be learning professionals.

José-Marie Griffiths, “The New Information Professional”7

**Step 3: Consider These Great Competency Statements**

I would also like to point out twenty (it was so hard not to include many more) particular competency statements from various institutions for their insight, simplicity, originality (the “duh, why didn’t we all think of that?” factor), or eloquence. In reading these, you will see a wide range of descriptive and task-based competency statements and a good variety of specificity.

1. **The Special Library Association (SLA) Competencies** include a section entitled, “Applying Information Tools and Technologies,” which has four components, all of which I believe are worth considering for inclusion:
   i) **Assesses, selects, and applies current and emerging information tools and creates information access and delivery solutions.**
   ii) **Applies expertise in databases, indexing, metadata, and information analysis and synthesis to improve information retrieval and use in the organization.**
iii) Protects the information privacy of clients and maintains awareness of, and responses to, new challenges to privacy.

iv) Maintains current awareness of emerging technologies that may not be currently relevant but may become relevant tools of future information resources, services, or applications.9

2. “Constructs search commands to obtain desired results.”9
3. “Understand the difference between a Web page and a Web site.”10
4. “Understand the meaning of common error messages.”11
5. “Understand how the Internet service for the library is provided (i.e., Where is the host server? How is the Internet paid for?).”12
6. “Demonstrating an understanding of the library’s role and responsibility for introducing applications of technology to the public.”13
7. “Demonstrating willingness to step outside of the box to achieve and maintain smooth library operations.”14
8. “Know e-mail etiquette/acceptable use.”15
9. “Identify hardware options for special needs patrons.”16
10. “Use Help.”17
11. “Delete history and temporary Internet files.”18
12. “Finds ways to remove technological barriers and facilitates information access for patrons.”19
13. “Evaluate electronic products and services and make cost effective choices in their selection and use.”20
14. “Scans the environment for emerging technologies that are relevant to library services.”21
15. “Communicate problems effectively to support/repair person.”22
16. “Bypass a web page’s formatting.”23
17. “Demonstrate an understanding of the library’s role in, and philosophy of, introducing technology to the public.”24
18. “Knows branch (or department) logins and passwords.”25
19. “Can change the page settings for a file before printing.”26
20. “Can explain the purpose and benefits of the Borrower self-sufficiency initiatives including receipt printers, Express Check, self-holds, and can use the system as a borrower.”27

These individuals know more about technology than anyone else on staff, so hopefully you’ve included them on the task force, but how can the task force describe accurately the technology competencies that these techies need?

If you have competent folks in your techie staff roles, they know what they need to know and can tell the task force. Don’t make the mistake of leaving their positions out of the competencies list entirely though, as some libraries have. A record of the competencies they need to do their jobs will be handy if they should ever, heaven forbid, quit or leave the job, say, for health reasons (repetitive stress is a frequent evil in techie-land).

If you’re looking for the types of things to include in the competency descriptions for your techies, I highly recommend reading two of Roy Tennant’s articles from the late 1990s, which have held up surprisingly well and are still the best documents, in my humble opinion, about what “digital librarians” need to know. The two articles both appeared in Library Journal.

The first article (“The Most Important Management Decision: Hiring Staff for the New Millennium”) lists basic personality traits that effective staff members in digital libraries need to have.28 The second article lists some basic areas that your techie librarians should have under their belts, and even now (eight years later) the rules still apply.29 The technologies Tennant lists are imaging technologies, optical character recognition, markup languages, cataloging and metadata, indexing and database technology, user interface design, programming, Web technology, and last, but not least, project management.

Every library and library technology position is different—so one person may not (in fact, should not) be required to have all of this knowledge and all of these skills. But it provides a good list to identify what aggregate of skills you will need from your technology staff members. I also highly recommend Tennant’s 2004 book Managing the Digital Library.30 Let your techies read through these resources and write out what they need to know—such as specific programming languages, skills, and knowledge areas. They will likely come up with a much longer and more extensive list than the task force has created for any other position. Basically—leave them alone, trust them, and let them write their own competency descriptions.

Notes
12. Ibid.
14. Ibid.
15. Reaume and Bilsland, “Core Competencies for Technology.”
16. Ibid.
18. Ibid.
26. Ibid.
27. Ibid.