Defining Embedded Librarianship

Try this experiment. Stand on a street corner and ask passersby what they think a librarian is or does. Chances are you'll hear a lot of answers that come down to this: A librarian is someone who works in a library. For centuries, librarians were identified with the buildings in which they worked. Most people don't differentiate between library workers with master's degrees and those without, or between librarians doing public services and those doing technical services work. For all of recorded history, librarians have worked in libraries. Long after we unchained our books, opened up our stacks, and encouraged people to take materials out of our libraries, we have continued to confine ourselves inside our libraries.

Today, that's changing. Digital information is ubiquitous. People don't have to come into libraries to get it or to use it. They obtain and use information at home, in the office, in dorm rooms, and in restaurants. They gather information sitting down and standing up. They use desktops and laptops, smartphones and tablets. Moreover, they access every type of information this way—whether it's for business, personal interest, scholarship, or science. Thus, when people *do* come to a library, they don't come for the traditional reasons. They come for programs, a quiet place to work, group study spaces, or to use the computers. They don't come to ask for help from the reference librarians, and as a result, traditional reference activity is declining. Smart librarians have recognized this trend. In fact, they've realized that the new environment of abundant, ubiquitous information offers them the opportunity to rethink traditional library services and do work that is new, more challenging, more rewarding, and more valuable for their communities.

Initiatives to let the librarians out of the libraries and create new modes of librarianship are taking various forms. Roving librarians wander the stacks to look for people who might like some help with their research, or they set up shop in student centers and dormitories to offer assistance with term papers and other assignments. Their motto is "Have laptop, will

travel." Some academic institutions designate *personal librarians*, who help students with information problems just as academic advisors give advice on academic courses and programs. Some authors advocate that librarians become "consultants"—on-call experts who can apply their expertise on demand to meet the information needs of any and all clients.

Definition of an Embedded Librarian

Perhaps the most succinct definition of the term *embedded librarian* is the one offered by Jezmynne Dene (2011). Describing her experiences with the initiation of embedded librarianship at the Claremont Colleges, Dene noted that "we chose to define an embedded librarian as 'an integral part to the whole,' based on the geological definition of an embedded element" (p. 225).

This brief definition captures the essence of the concept. Embedded librarianship is a distinctive innovation that moves the librarians out of libraries and creates a new model of library and information work. It emphasizes the importance of forming a strong working relationship between the librarian and a group or team of people who need the librarian's information expertise. As the relationship develops, the librarian's knowledge and understanding of the group's work and objectives grow, which leads in turn to greater alertness to the information and knowledge needs of the group. The embedded librarian becomes just as engaged in the work of the team as any other team member. As the engagement grows, the embedded librarian develops highly customized, sophisticated, and value-added contributions to the team—contributions that sometimes go far beyond the confines of traditional library reference work and that some might be surprised to find a librarian delivering. The librarian functions as a team member like any other—and shares responsibility for team and organizational outcomes with all the other members of the team.

These points deserve elaboration. In traditional reference service—whether it's performed at a reference desk or virtually, by phone, email, or text messaging—librarians typically provide library users with an answer, advice, or instructional tips and guidance on research methods. The librarians' responsibility ends there. Librarians need not understand the library user's project or ultimate objective in any great detail; in fact, some library service guidelines treat inquiring about the information seeker's

intent as an invasion of privacy. The philosophy of embedded librarianship is quite different. Embedded librarians need to be fully "read into" the nature of the work being performed. Whether it's the learning outcomes of an academic course or the commercial objectives of a market research study, embedded librarians need a full understanding of the nature of the task and the goals of the effort.

In traditional reference work, the operating assumption is that all librarians are interchangeable. The patron is supposed to deal with the librarian on duty at the desk at any given time, and the librarians are expected to deliver consistent service regardless of the nature of the request. Relationships can form, but they aren't actively fostered. Embedded librarians, on the other hand, deliberately build relationships—with faculty, with students, with the marketing department, with a research and development team, or with any other user group. It's an important part of their work because that's how their understanding grows. The relationships and the understanding of the work are the prerequisites that enable the librarians to customize contributions to the team's work and provide sophisticated, highly valued information management and information services.

In traditional reference service, librarians are responsible for good reference work, period. They generally don't have any way to know how their work affects the work of their patron, apart from the occasional thank-you note—which usually praises only their efficient and pleasant service and rarely cites the impact of the work. However, the close engagement that forms between embedded librarians and the information user teams they work with naturally leads to the librarian's assuming the role of team member rather than traditional standalone service provider. As team members, embedded librarians take on the same responsibility for team outcomes that other members share. Embedded librarians often go above and beyond traditional expectations in contributing to the team's success.

Figure 1.1 depicts the factors that define embedded librarianship. This set of factors—ongoing working relationships, knowledge of and commitment to information user-group goals and objectives, and highly customized and value-added contributions to the group—define embedded librarianship and set it apart from both traditional reference work and other initiatives to reach out and liberate the librarian from the library.

Figure 1.1   Factors That Define Embedded Librarianship

Embedded Librarians and Physical Location

The term *embedding* suggests a physical process. Embedded journalists live with military units, sharing in their experiences and observing their routines and combat actions in a theater of war. Some embedded librarians can be physically embedded. Michael Moore (2006) of the MITRE Corp. wrote that "things changed quickly" for him when his office moved into the area occupied by the group he was working with. Jill Stover Heinze (2010), of Affinion Loyalty Group, had a similar experience. When she moved into the Brand Communications group's space, she began participating in the informal conversations that sprang up as the group worked through its tasks—and they began to recognize the value of her contributions. Academic librarians such as Russell Hall (2008) spend time in the classroom, participating in discussions and teaching units on information literacy.

Such physical embedding of librarians, while common, is far from universal. Just as the modern environment of ubiquitous digital information means that people don't have to come to the library for the same reasons they used to, it also means the librarian can "get out of the library" without physically leaving the library. At one international law firm, for example, a librarian in the New York office is embedded with a major practice group of the firm. She does in-depth research, monitors hot topics, edits customized news, and stewards the group's shared document repository, along with its taxonomy. But she rarely sees the practice group leader face-to-face, because he works in the Los Angeles office. Other group members are scattered around the globe, so she rarely sees them, too (Shumaker and Talley, 2009, Appendix B).

In the academic sector, librarians at a number of institutions have embedded themselves virtually. At the Community College of Vermont, the library staff members have moved to an all-virtual embedding model, in which they participate in online courses and in the online course management system for face-to-face courses but never attend face-to-face classes (Matthew and Schroeder, 2006). Other institutions that have established virtual embedding include the University of Minnesota Extension and the Tennessee state college system (Mastel, 2011; York and Vance, 2009). To date, there is no evidence that virtual embedding is any less successful than an embedded relationship that involves physical colocation. While it can be easier to develop a strong working relationship face-to-face, experience indicates that it can also be done successfully via digital technologies.

Examples of Embedded Librarianship

Examples of embedded librarianship can be found in a variety of institutions and organizational sectors. Here are just a few to illustrate their diversity.

Johnson & Wales University

Johnson & Wales University in North Miami, Florida, specializes in preparing students for jobs in the hospitality industry, including hotel restaurants. Librarians Nicole Covone and Mia Lamm wrote about their role in *Public Services Quarterly* in 2010. They initiated their embedded role out of a realization that "the librarians on campus needed to cultivate a variety of relationships to successfully integrate library support into the curriculum" (p. 199). They viewed this initiative as a direct way to build trust, develop understanding of the librarians' role in learning, and become co-creators with the faculty.

Among other projects, they collaborated with faculty of the College of Culinary Arts to develop the research component of culinary assignments. One aspect of their collaboration was to deliver information literacy instruction to students in the classrooms—including kitchens. They write that these sessions were "often scheduled while the bread dough was rising and students were cleaning their workstations. As challenging as this teaching environment was, by entering their workspace we felt it moved

us past the barrier of the reference desk. This one initiative enabled the librarian to step in to nine baking and pastry lab classes resulting in outreach to approximately 10% of the student body. Students viewed the librarian as more approachable and understanding of the particular needs of culinary-focused students" (Covone and Lamm, 2010, p. 198).

Ziba Design

Reece Dano and Gretchen McNeely, librarians at Ziba Design in Portland, Oregon, tell this story, which comes from a presentation they gave at the 2010 Special Libraries Association (SLA) conference, a webinar they presented, and an interview published in the SLA magazine, *Information Outlook* (Dano and McNeely, 2010; Spencer, 2009).

Ziba Design is a small consulting firm with a couple of hundred employees. As consultants, employees take on projects related to diverse applications of design—everything from the branding and marketing initiatives of an athletic equipment manufacturer to assistance to an architect with the design of a transport station for the city of Portland.

Project teams are assembled dynamically to execute the various engagements. Typically, core team members are supplemented by others as needed. The librarians are frequently involved as either core members or supplementary members of the project teams. Initially, their role was to bring external, published, open source information to bear on the business problem confronting the group. However, the embedded librarians' role at Ziba grew beyond finding the published literature. They became more highly integrated into the engagement teams, contributing to primary research as well as providing the essential secondary research available from open sources.

Reece described an engagement that showcased the librarian's ability to transcend a traditional role and become the "information curator" for the team. The project's goal was to design a public transport station in a depressed community known as Rockwood. The design needed to be safe and welcoming as well as functional. It needed to take into consideration community input and be consistent with the nature and needs of the community. Reece began the process by conducting detailed research into the history and sociology of the community, using records from the local historical society, government census data, and other published sources. As a result, he became the most knowledgeable member of the team when it came to the character of the community, so he was chosen to guide the

team on a visit to the area. As the team walked through the streets, observing the architecture and character of the neighborhood, one of the other members expressed the wish to talk to more members of the community. With his smartphone, Reece determined that they were a short distance from the local public library. He led the team to it, and once there, the team interviewed library users and the very knowledgeable library staff, gaining many new insights.

Reece went far beyond traditional library service in this situation. He didn't locate a set of references to source material and stop there. He didn't furnish copies of documents and stop there. He didn't write a report on the community and stop there. He did all these things and combined them with leading primary research into the community's needs. As he says, "I became … both a docent and an information curator. In all, this approach made the entire research team more flexible, smarter and more efficient. The success of this approach led me to be used in a similar way in following projects" (Dano).

American University

Next, consider the work of Nobue Matsuoka-Motley at the American University in Washington, D.C. Nobue is the embedded music and performing arts librarian, with an office in the University's Katzen Center for the Performing Arts, at the opposite end of campus from the main university library. She's not just the embedded librarian; she is also a musician. She described her experiences in the *Public Services Quarterly* in 2010. In her case, it took extensive negotiations between the university librarian and the department of performing arts to acquire an office for her in the Performing Arts Center. Once she had it, she was able to leverage it to expand her relationships and her role with the faculty and students. Here are a few of her observations:

> It was crucial for me to become a community member to fully learn about [the faculty] and their needs. We serve a unique community where many things are accomplished through teamwork. The faculty and students constantly work together to accomplish their creative works. … In such an environment everyone learns everyone else's name and strong bonds are developed.

> Frequent opportunities to talk to the faculty made it easier to implement my initiatives to emphasize the importance of information literacy.
>
> Since I became embedded in the [department of performing arts], the faculty has become accustomed to the concept of a librarian teaching information literacy to their students. During the first year after my move, the number of requests for in-class instruction increased 68% and item circulation jumped 21%. (Matos, Matsuoka-Motley, and Mayer, 2010, p. 130)

She concluded, "The success of embedded librarians depends upon the librarian's ability to understand the characteristics of the community they serve in addition to their ability and willingness to become a community member" (Matos, Matsuoka-Motley, and Mayer, 2010, p. 130).

University at Plattsburgh

Librarians Gordon Muir and Holly Heller-Ross (2010) have written about several embedded relationships they established at the State University of New York in Plattsburgh, New York. One of them is called the Biology Learning Community. The Biology 101 course syllabus sets forth this outcome for course learning: that students be able to pursue scholarly work, whether laboratory, field work, or literature synthesis, independently and as members of a team. The biology course is integrated with an 8-week library skills course that prepares students for the literature synthesis part of the assignment. The biology instructor and the librarian coordinated the two courses in advance. As they worked together, they realized that "the best time to assist students in their research is when the students are in lab and have questions, not when the students are out of lab and realize they need help and might not contact their librarian for research assistance" (p. 92). For this reason, the librarian became a full participant in the biology lab sessions.

Gordon and Holly draw several lessons from their experience. Here's one:

> In order for librarians to be effective in the learning community, they must be viewed by all as a partner in the community. Real familiarity with the course and content (such as lab

experiments) is vital to change the perception of students that the librarian is "just visiting" the lab and is not an integral part of the learning community. (Muir and Heller-Ross, 2010, p. 92)

Their overall advice for other academic librarians is as follows: "Time for planning and collaboration on assignments is essential for a successful partnership. Equally clear is the transformational nature of the new relationship. Once you are accepted as a member of the group of learners in the community, the barrier between the librarian and student is breached allowing for frequent and continual consultations to take place—both in the lab and outside of class, and throughout their academic career" (Muir and Heller-Ross, 2010, p. 92).

Affinion Loyalty Group

Jill Stover Heinze has spoken (Heinze and Kortash, 2009) and written (Heinze, 2010) about her experiences at the Affinion Loyalty Group, a unit of a larger corporation. Affinion specializes in marketing and advertising services for banking and other corporate clients. Heinze was hired as a research analyst to do competitive intelligence (CI), but she felt a bit disconnected until the company's president invited her to move her office into the Brand Communications group's area. Since then, Heinze has developed her role as an embedded librarian. Thanks to everyday informal interactions, members of the group began to realize what she could contribute, and she developed new insights into their work and goals. Now she finds herself contributing in ways both large and small. She is pulled into meetings to share her perspectives, contributes to corporate strategy, and serves as an expert in legislative and regulatory affairs that affect the company and its clients.

Heinze notes that her close collaboration with Brand Communications has yielded benefits all around:

> With each interaction between the CI librarian and the Brand professionals, knowledge is shared that ultimately influences the outputs of the Brand Communications group. The marketing materials developed today are far more advanced in terms of messaging and positioning than they were before the CI librarian was placed within the Brand group. Through this true partnership, each role gains greater understanding of our

> industry and how to position products, the company, and its
> clients to targeted audiences. (Heinze and Kortash, 2009, p. 10)

Heinze and her company have seen the value of embedded librarianship. She says, "partnering with someone with complementary skills can greatly improve each participant's own work while generating new opportunities to add value" (Heinze and Kortash, 2009, p. 10).

Each of these stories illustrates the key elements of embedded librarianship. There's a strong emphasis on relationships and the mutual understanding that comes with them. The librarian develops a thorough understanding of a university course or the work of a corporate business unit. Faculty and other professionals in turn come to appreciate the unique skills and perspectives that the librarian can add—skills and perspectives that become important factors in achieving desired outcomes. All of this results in the delivery of customized, high-value contributions to the work being done, and ultimately in shared responsibility for outcomes. Whether it's academic instruction or commercial research, these elements are consistent in all of the stories.

Advantages of Embedded Librarianship

The previous examples, and many others in the literature, illustrate five fundamental differences that enable the embedded librarian to achieve much more than traditional reference librarians can. Figure 1.2 illustrates these five differences.

Traditionally, librarians are responsive. As a matter of fact, we're known for our responsiveness. That's fine, but "responsive" implies waiting to be asked—an essentially passive model. Embedded librarians go a step further than responsiveness—they anticipate. A senior academic administrator I interviewed recently described the embedded librarian she works with as a "fount of ideas." A corporate administrator told me his embedded librarian suggested ways of accomplishing tasks that others on the team wouldn't think of—ways that save the team time and effort. Embedded librarians don't wait to be asked. They use their close working relationships to identify needs and find solutions.

The traditional model of library services is patrons getting help one at a time. The reality is that in government, the military, academia, and the corporate world, people work in teams. In educational settings, instruc-
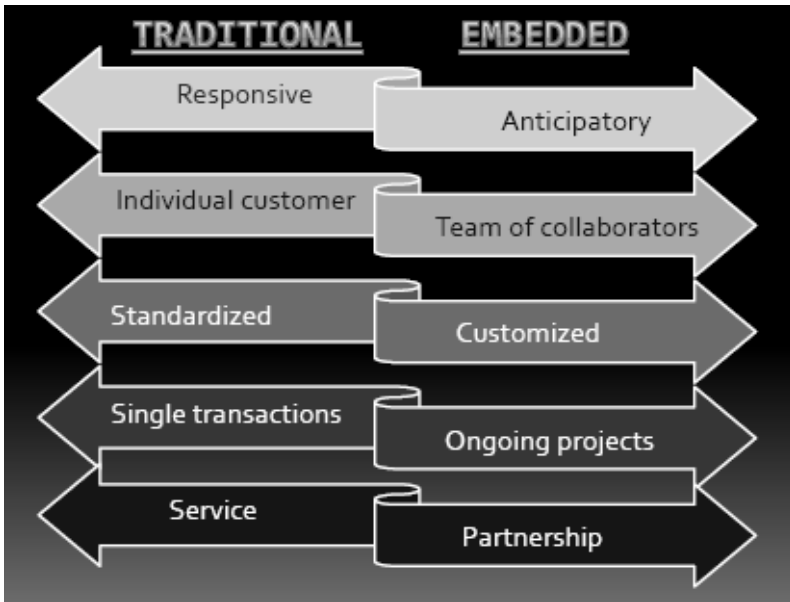
Figure 1.2   Differences Between Traditional and Embedded Librarianship

tors are assigning team projects more and more often—to help students prepare for the collaborative world of work awaiting them. The embedded librarian, too, most often works with and for a team—a research group, a department, a student project team, or the students in a class. Embedded librarians are much more effective because they work for the whole team.

The traditional library service model is standardized and a bit bureaucratic. There are guidelines, policies, and standards of service. In some ways, those are all good things. The intent is to ensure equitable treatment to all. However, different teams have different needs, and what one team needs might not be so helpful to another. Flexibility becomes essential. The embedded librarian uses the strong working relationship formed through participation in a team to understand the team's needs and address them in a customized way.

Traditionally, transactions are the measure for reference work. With embedded librarianship, transactions still occur—documents are requested, instructional sessions are held, or documents are added to a shared virtual workspace—but the emphasis shifts from the transaction to the project. The counseling session with a student project team leads, not just to questions, but also to discussions of options. The research project

raises new questions that invite further research. The key news item spotted and distributed opens up a new task to track and report on changes. One action leads to another; one task flows into the next. The embedded librarian's work is evaluated by value added, by impact on student learning outcomes, or by team success, and not so much by the number of transactions completed.

Finally, the tradition of librarianship holds service as one of our highest values. The concept of service has many laudable connotations, and the profession of librarianship has a strong service ethic. Being service-oriented, treating people well, and caring about helping them effectively are good things. Yet, for all its positive associations, there are limits to service. The provider of a service stands a bit apart. The provider of a service is only responsible for that service. Embedded librarians are responsible for more than that.

You may note that I haven't used the term *service*, as in *library service* or *information service*, thus far in my explanations of embedded librarianship. That was a deliberate choice. Embedded librarians transcend service because they become partners. As a partner, the librarian is fully engaged. The partner is a member of a team whose members are mutually responsible for the overall outcome. It's different from the service relationship, and it's what happens when embedded relationships are fully developed.

Embedded Librarianship and Other Models of Librarianship

Thanks to a research grant from the SLA, I've spent more than 3 years studying embedded librarianship—trying to understand what it really is (and is not) and what factors make some librarians so successful at it. Along the way, I've found that the famous dictum "the future is already here, it's just unevenly distributed" (attributed to science fiction author William Gibson) applies well to the evolving model of embedded librarianship. Embedded librarianship is contending with the traditional model of reference work, along with other new models, as the profession develops strategies that will prove successful in that unevenly distributed future.

A broad consensus exists that the traditional model of reference services is fading away. It was never a very effective way to solve information problems anyway. There was a time when people had to rely on the library

for information, but nowadays information is ubiquitous, and people have many sources from which to choose. For librarians, waiting at a reference desk for people to realize they need help and then get up the courage to ask for it may have been the best we could do at one time in history, but not anymore.

What should replace the traditional model? Librarians are trying different approaches, with titles such as *virtual librarian*, *roving librarian*, *personal librarian*, *consulting librarian*, and *embedded librarian*. I'll consider each one in turn.

The virtual librarian is available remotely via all kinds of communication media—phone, email, instant messaging, text messaging, and virtual worlds. The virtual librarian, thanks to schedule shifting and collaborative arrangements among librarians in different time zones and even different institutions, can also be available 24/7. But the virtual librarian is still in passive mode, waiting for people to come up to the virtual desk in cyberspace and ask a question.

The roving librarian "grows feet," to use one blogger's expression, and leaves the library to set up shop in different physical locations—a cafeteria, a student center, dorm lobbies and lounges, or different departments. Once there, the savvy librarian strikes up conversations with passersby, thereby encouraging them to ask questions that can open up new opportunities for librarians to assist with information needs. However, there are limits to this: If the librarian is scheduled to cover the cafeteria during lunchtime on Tuesday, she can't come to the new marketing project's kick-off meeting being held at the same time. What is really the better use of the librarian's time and attention? Furthermore, the librarian in the roving model is still disconnected from the work of the organization. Collaboration with faculty or business professionals is lacking. There's lots of energy in the roving librarian model, but it's not focused; it's diffused.

Some academic institutions are trying the personal librarian model. Entering first-year students are assigned a librarian to be their information counselor during their 4-year undergraduate career. The intent is to build relationships that enable the librarian to offer assistance proactively as well as encourage the student to reach out for assistance at critical junctures—when major term papers are assigned, for instance. Like the roving librarian, the personal librarian has opportunities to be proactive, but the possibility of a diffusion of energy is very real. The interests of first-year students aren't well defined and often shift during the student's undergraduate career. A personal librarian might have student clients

majoring in music, physics, business, and nursing. It's impossible for any individual librarian to serve each of these areas equally well—our reputation for being outstanding generalists notwithstanding. The personal librarian approach also runs against the increasing emphasis on team projects: If you and I are on a team and we both have personal librarians, do we each go to our own librarian, or are we collaborating well enough that we decide together how our information needs will be handled? With the personal librarian model, it's left to chance, and the librarian isn't in a position to influence the approach. The personal librarian seeks relationships, but they are not founded on a clear purpose or focus.

Consulting librarians in any organizational setting—from a corporation to a university—combine mobility, proactivity, energy, and focus. Like any consultants, internal or external, they engage with a team or an individual client. They function as specialized role players with a unique expertise—in this case, information analysis and management—that the client needs in order to achieve certain objectives. They have the desirable attributes of "growing feet" and getting out of the library, both physically and virtually. They are proactive. They focus their energy on a team and are able to spot information problems that others on the team may not recognize. They are in a position to come up with solutions crafted to the special needs of the team. They establish relationships that last for the duration of the engagement and may continue beyond, into new engagements as well. (Every consultant, after all, has to keep an eye out for follow-on work and new tasks.) The consulting librarian model has much to recommend it and can dramatically expand the librarian's opportunities to deliver value to the organization. The only drawback is that consultants are typically viewed as specialized role players, not as full members of the team. The consultant contributes advice—sometimes solutions—but in a limited sphere bounded by preconceived ideas of the consultant's expertise. The consultant may not develop a strong knowledge of the team's work and may not feel a responsibility for overall team outcomes. Not viewed as a true member of the team, the consultant's advice is solicited only in situations in which the team members feel they need specialized expertise.

Finally, there's the embedded librarian. The embedded librarian contributes to a team or an organization through customized, specialized, high-value-added information management and analysis. Embedded librarianship, when fully developed, embraces a strong, ongoing working relationship between the librarian, team leaders, and other team members, and a sense of shared responsibility among all for outcomes and

achievements. The embedded librarian develops a sophisticated under-standing of the team's domain. While the embedded librarian doesn't acquire the same level of expertise in a domain that other members have, the sophisticated understanding enables the librarian to become much more effective at customizing information solutions and adding value. The embedded librarian often contributes novel and useful insights and solutions to team problems that go beyond the expected bounds of the librarian's role. The embedded librarian combines proactivity and energy with strong working relationships, close alignment with team goals and objectives, shared responsibility for outcomes, and full membership in the team.

How Embedded Librarians Are Changing the Profession

Librarians bemoan the stereotypes that have dogged the profession for more than a century. Writing in the first volume of *American Library Journal*, Melvil Dewey alluded to the image of the librarian as a "mouser in musty books" (quoted in Bobrovitz and Griebel, 2001, p. 260) and called for the passing of that stereotype. A generation ago, there was hope that the dawn of information technology would "raise the phoenix of 'Marian the Librarian' from the ashes of mousiness"—a hope that was not fulfilled (Bobrovitz and Griebel, 2001, p. 260). Writing in 1990, Patricia Glass Schuman took the discussion of the professional stereotype to a new level:

> The image we seem to worry about most—that of the middle-aged spinster librarian—is basically irrelevant and unimpor-tant. What is important is the view of the librarian and the library as foreboding, boring, complicated, largely inaccessi-ble, or worse, irrelevant. (p. 86)

Schuman continues:

> Our focus should not be on how attractive people think we are (or even how smart) but how useful, necessary, and important we are to their education, research, and everyday lives and work. (p. 86)

This is exactly what embedded librarians are focusing on. They are finding ways to be important to the goals of the organizations in which they work. They are providing, in the words of Joan Durrance, "Well-focused services that require contact between a librarian and a client group within the context of a problem environment … beyond answering the isolated reference question and into the role of a professional visibly helping the client solve problems" (quoted in Schuman, 1990, p. 86).

The embedded librarian is going even further than Durrance and Schuman advocated. The goal of embedded librarianship is more than service. It is partnership. The driving ideas behind it are that the effective use of information has become so critical to many social and business endeavors that librarians as information and knowledge experts can no longer stand apart from core organizational processes but must be fully engaged in them—not for the health of the profession, but for the health of the organizations and institutions in which they work. Where smart and enlightened executives are enabling motivated and effective librarians to step up to this new relationship, the old stereotypes of the retiring, irrelevant, clerical functionary arranging books on the shelves have disappeared in favor of the true image—a key player in the enterprise.

Summary

This chapter has begun our exploration of embedded librarianship by defining it and identifying the fundamental characteristics that set it apart from traditional library service practices.

Embedded librarianship is a distinct and different way for a librarian to work in any setting. The embedded librarian is fully integrated into a community. He or she forms strong working relationships with others, shares responsibility for the achievement of common goals, and makes a specialized contribution by applying advanced professional information competencies.

Five key characteristics that distinguish the embedded librarian from the traditional librarian are as follows:

- Embedded librarians aren't just responsive; they are able to anticipate information needs thanks to close communication and deep understanding of the work of the information user group.

- While the traditional librarian generally serves one library patron at a time, the embedded librarian typically interacts with an entire community of information users, and ensures that information flows to everyone in the group who needs it.

- The traditional library service model is standardized, but the embedded librarian customizes contributions to meet the most important needs of the user group. The librarian's strong working relationship with members of the group ensures that the customized information work is truly what the group needs most.

- Traditionally, transactions are the measure for reference work, but with embedded librarianship the emphasis shifts from the transaction to the project. One task flows into the next, and the embedded librarian is measured by value added, not transaction counts.

- In embedded librarianship the traditional value placed on service is superseded by the value of partnership, and shared ownership of team goals and objectives. Partnership emphasizes that the librarian is considered an integral member of the group, and not an adjunct role-player with limited participation.

This new model is replacing traditional reference librarianship, and is changing the profession at the same time—replacing outdated stereotypes with a new image of effective competence and engagement.

References

Bobrovitz, J., and R. Griebel. 2001. Still mousy after all these years: The image of the librarian in the 21st century. *Feliciter* 47 (5): 260–263.

Covone, N., and M. Lamm. 2010. Just be there: Campus, department, classroom … and kitchen? *Public Services Quarterly* 6: 198–207.

Dano, R., and G. McNeely. 2010. *Embedded librarianship in the field.* New Orleans, LA: Special Libraries Association.

Dano, R. Personal communication. November 16, 2010.

Dene, J. 2011. Embedded librarianship at the Claremont Colleges. In *Embedded librarians: Moving beyond one-shot instruction*, eds. C. Kvenild and K. Calkins, 219–228. Chicago, IL: Association of College and Research Libraries.

Hall, R. A. 2008. The "embedded" librarian in a freshman speech class: Information literacy instruction in action. *College & Research Libraries News* 69 (1): 28–30.

Heinze, J. S. 2010. Leveraging internal partnerships for library success. *Information Outlook* 14 (1): 13–15.

Heinze, J. S., and K. Kortash. 2009. Navigating through turbulent times: How the corporate special library and brand communications work together to forge a path to the future. Paper presented at Special Libraries Association annual conference, Washington, DC. Available from www.sla.org/pdfs/sla2009/navigating turbulenttimes_heinze.pdf. (Accessed April 4, 2012.)

Mastel, K. 2011. Extending our reach: Embedding library resources and services within extension. In *Embedded librarians: Moving beyond one-shot instruction*, eds. C. Kvenild and K. Calkins, 211–218. Chicago, IL: Association of College and Research Libraries.

Matos, M. A., N. Matsuoka-Motley, and W. Mayer. 2010. The embedded librarian online or face-to-face: American University's experiences. *Public Services Quarterly* 6: 130–139.

Matthew, V., and A. Schroeder. 2006. The embedded librarian program: Faculty and librarians partner to embed personalized library assistance into online courses. *Educause Quarterly* 4: 61–65.

Moore, M. 2006. Embedded in systems engineering: How one organization makes it work. *Information Outlook* 10 (5): 23–25.

Muir, G., and H. Heller-Ross. 2010. Is embedded librarianship right for your institution? *Public Services Quarterly* 6: 92–109.

Schuman, P. G. 1990. The image of librarians: Substance or shadow. *Journal of Academic Librarianship* 16 (2): 86–89.

Shumaker, D., and M. Talley. 2009. *Models of embedded librarianship: Final report*. Alexandria, VA: Special Libraries Association.

Spencer, F. G. 2009. 10 questions: Reece Dano. *Information Outlook* 13 (3): 26–29.

York, A. C., and J. M. Vance. 2009. Taking library instruction into the online classroom: Best practices for embedded librarians. *Journal of Library Administration* 49 (1/2): 197–209.