
An Ideological Analysis of Digital Reference Service Models

JURIS DILEVKO

ABSTRACT

USING THE THEORIES OF PIERRE BOURDIEU about occupational fields of struggle and species of capital, this article examines the ideological implications of the digital reference call-center model. This model has the potential to lead to deprofessionalization of reference work because of increased automation and the replication of employment conditions prevailing in private sector call-centers. Call-center work typically involves unskilled women earning low wages in jobs that present little opportunity for career building. Library directors who advocate digital reference call centers as models of the future have neglected the negative aspects of call centers in their rush to cut costs and provide efficient services. One answer to the deskilling dilemma is the simple act of reading: the more a librarian reads, the more he or she becomes an irreplaceable contributor in the reference transaction.

INTRODUCTION

In the headlong rush to redefine reference service for the 21st century, what has been overlooked or downplayed is the fact that increasing reliance on technological efficacy invariably decenters the human intellectual contribution to the reference transaction. To be sure, reference librarians are very skilled and astute in constructing search strings and knowing which databases and Web pages may contain the nuggets of information sought by a demanding user. They are equally adept at teaching users to evaluate “the variety of information formats and interfaces clients encounter” (Frank, Calhoun, Henson, Madden, & Raschke, 1999, p. 154).

Nevertheless, the various scenarios envisioned for reference services of the future have the effect of deprofessionalizing the reference librarian. For all intents and purposes, the librarian becomes an assembly-line information worker not typically conversant with or cognizant of the information dispensed. At one time, the reference librarian was a person who was broadly familiar with contemporary social, cultural, political, and scientific occurrences. Such familiarity was important to delivering high-quality reference service because it added a fresh intellectual perspective and a new knowledge base to the question or problem at hand. Now, to judge from some recent proposals and models of digital reference service, the role of the reference worker is to be a mere technological gatekeeper, a guide who makes minor intellectual contribution beyond the perfunctory act of steering the user to the best Web sites or databases without knowing a great deal about the issues underlying the user's request.

Wilson (2000) is no doubt correct in her assessment that those who will most frequently use digital reference services in the future are "individualistic or egalitarian," defined as "those who enjoy working on their own and those who desire greater equality in the way that users and reference librarians interact" (pp. 388–389). The traditional reference desk model was not the most congenial approach to information provision for this group of users insofar as it presented "a hierarchical context in which reference librarians were accorded expertise regarding information resources and access" (p. 388). As Koyama (1998) points out, anonymous digital reference services may be favored by those who do not feel comfortable with "the captive nature inherent sometimes in the personal interview controlled by the librarian" (p. 51). Wilson's (2000) point is that, because librarians will henceforth deal primarily with a different group of users, reference work must be fundamentally rethought to cater to this new group of users. She therefore urges reference librarians to "improve their technological skills" (p. 389) in order to "align with the new reference/user cultural reality [and] to maintain user allegiance to the value of reference service" (p. 390). Yet Wilson seems to forget that a central reason that all users (whether hierarchically oriented or individualistically oriented) turn to a reference librarian is this: they can no longer move forward to resolve their problem or situation. They implicitly recognize that the reference librarian has some kind of expertise that they themselves lack. A hierarchical relationship, in Wilson's terms, is therefore still present. Because "independent and individualistic users" are likely to be well acquainted with the vast resources of the Internet and have tried to find needed information there on their own, in the electronic realm, the act of turning to a reference librarian is a tacit admission that they are really at a loss. Thus, non-hierarchical users do not merely want a reference librarian who has strong technological skills—because they themselves may possess those. (After all, students are exposed to the Web at an ever earlier age, and thus develop an impressive facility

with technological concepts and best practices.) Instead, they want someone who can bring something new to the table.

Certainly it is vital, as Wilson recognizes, for the reference librarian to be well-versed in "information therapy" (p. 390), making users more clearly aware of their actual information needs. But it would be a strange therapist indeed who based a practice solely on increasingly sophisticated technological skills and who did not devote much time and effort to developing working knowledge about subject areas. Simply put, why would you consult with reference librarians in the first place if they have a reputation for not knowing much more than you do? As technological skills become widespread among a larger segment of the population, reference librarians should consider how best to develop a unique knowledge niche that would allow them to differentiate themselves from potential library users—to position themselves as market leaders, instead of followers. In today's frenetic world the key to preservation of the reference librarian and the reference function in North America may lie in forging a reputation as a profession whose individual members are a repository of accumulated knowledge. Only a strong and concerted commitment to a program of in-depth, time-consuming, and painstaking reading in diverse subjects can achieve this goal. Long-term success should be measured not by how frantically one strives to emulate and adopt contemporary reigning paradigms of whatever sort, but by creating a service that is of lasting value to the growing legions of ultra-connected and time-pressed individuals. Ultimately, a service profession such as librarianship thrives not by offering what others already have, but by providing something that others lack—in this case, a wealth of subject knowledge accumulated through an ongoing program of focused and purposive reading.

This article glances at some of the new paradigms for reference service, demonstrates briefly how they lead to a deprofessionalization of reference work, and provides a few examples of how the simple act of extensive reading can help reference librarians provide better service. I suggest that renewed emphasis on voluminous reading is a prerequisite for the revalorization and reintellectualization of the reference librarian and the reference function. Reading has the potential to provide the basis for the reference librarian to make the kinds of intellectual (and, if necessary, interdisciplinary) connections that add real value to the reference transaction.

THE DEPROFESSIONALIZATION OF THE REFERENCE FUNCTION

Calls for a reformulation and rethinking of the concept of reference work make the human contribution either completely redundant or severely devalued and routinized. For example, Richardson (1998) reports on the Question Master "decision support system automating some of the more routine, fact-type reference questions encountered in libraries" (p. 29). The system, comprising a series of Web pages, is intended to guide librarians

(and eventually end-users) "through a set of clarifying questions before making recommendations of an appropriate electronic or relevant print resource from WorldCat, the OCLC Online Public Union Catalog" (p. 29). Noting that the accuracy rate of this system is about 64 percent, Richardson observes that, even in the beta stage of development, it performed better than the typical accuracy response rate of 55 percent provided by reference librarians. Heckart (1998), extrapolating from the current functionality of advanced "intelligent agent" and "knowbot" systems, predicts a future for the emerging digital library in which machine help will replace human help. A student will complete a paper and post it to the class Web site "without ever visiting the physical library or talking to a real life library staff member." In an attempt to legitimize this vision, Heckart notes that corporations are "implementing virtual help desks, in which an employee finds answers by keying in a few key words on the corporate intranet" and in which, "if negotiation is needed to refine the request, the employee is automatically prompted with questions" (pp. 251-254).

While Richardson (1998) and Heckart (1998) almost completely eliminate human intervention in the reference process, another cluster of articles proposes the call-center model as something to which the digital reference library of the future should aspire. Writing specifically about academic reference service, Ferguson (2000) postulates "electronic research environments that combine information resources, asynchronous tools and instructional aids, and real-time assistance [from] knowledgeable staff [skilled in] formulating research strategies and solving navigation problems" (p. 307). One "critical component" of such a service is the "Internet call center, which integrates telephone, e-mail, chat, video, and other inputs into a single incoming queue." There "an information specialist can employ FAQs, voice-recognition database queries, a ready reference collection at hand, electronic reference and other information resources, accumulated service histories within a C[ustomer] R[elationship] M[anagement] system, and a variety of service protocols . . . in directly resolving queries, referring to experts on call, or making appointments with experts" (p. 308). Viewing the call center as the anchor of the model digital reference library because it creates "economies of scale that allow increased flexibility in the allocation of resources for the greater and long-term good," Ferguson notes that the model depends upon "rich access to, and routine participation of, staff proficient in automatic call distribution (ACD), computer-telephone integration (CTI), CRM software, and Internet call center technologies" (p. 308).

Coffman and Saxton (1999) see the incoming call center as a model for networked reference service in public libraries. They envision reference workers as "agents . . . tak[ing] calls at computer workstations where they . . . have ready access to databases, lists of frequently-asked questions and answers, pre-written scripts for particular situations, and other tools needed

to deliver . . . information" (p. 148). McGlamery and Coffman (2000) recommend the use of "web contact center software" (WCC) in public libraries, specifically pointing to the web site of a mail-order retailer such as Lands' End . . . as a good model for WCC library reference service because the software available on that site "takes full advantage of collaborative tools, such as pushing, form filling, and taking control of the requestor's browser" (pp. 381-382). WCC provides the same functionality as traditional call-center technology, but also takes advantage of the fact that many customers now have access to Web browsers. How would this work in practice? As described by McGlamery and Coffman, an individual in search of information about how to start a small business goes to a library web site. From the library's business page, the user clicks on an icon marked "Talk to a librarian" and chooses to open a chat session. After providing some identification and perhaps a registration number, the user is put on hold while the library pushes Web pages to the user's browser, much the same way music is pushed to a person waiting in a telephone queue. Because the user has initiated contact from the library's business page, the user's request has automatically been directed to business reference staff. When the user does talk to an employee in the business department of the library, the employee makes use of a variety of software tools that have created "a hierarchical script based on the most commonly asked business questions" (p. 382). The library employee listens to the user's request about information for starting a small business, finds the correct script based on a generic answer, and pushes it to the user's browser "in the form of a web page, a PowerPoint presentation, a page of frequently asked questions (FAQ), or any other electronic resource available to the library" (p. 382). If the question is more detailed, the library employee could instruct the user how to use a business database with "follow me browsing," a process that allows the employee to take control of the user's browser and lead the user "through each step of the process" (p. 382).

In general terms, the "click here to talk to a librarian" icon can be placed anywhere on a public library's web site. If located on the catalog page, it would help the user find books from paraprofessionals; if located on a page containing reference databases, it would connect the user to someone skilled in searching databases. If located on a subject-specific page, it might refer the user to a reference librarian who, if she or he could not answer the query, would refer the user to other networked subject specialists at other libraries—whether academic, legal, or medical—in the local area.

THE DANGER OF DESKILLING IN CALL CENTERS

At first glance, library call-center scenarios seem exciting and groundbreaking, allowing libraries and librarians to present themselves as forward-looking, cutting edge, and technologically adept. At second glance, however, the library call-center model is part of a disturbing trend toward deskilling

of the library profession. Harris (1992) has identified deskilling as an important issue in librarianship and presents evidence that certain library specializations, such as cataloging and collection development, are at various stages of risk. Citing the work of Nina Toren, Harris understands deskilling to involve "the delegation of routine activities to less qualified personnel [and] leaving the complex and difficult problems to the trained professional. Sometimes, however, not much is left to warrant a distinct professional status and its correlates" (p. 123). Harris and Marshall (1998) show that both budget constraints and rapid developments in computer technology have had the effect of "pushing tasks down the organizational hierarchy." Tasks previously performed by professional staff are "now assigned to less expensive nonprofessional staff." Moreover, tasks that were "at one time performed by library staff at the bottom of the organizational pyramid may be pushed entirely out of the waged work structure in libraries" (pp. 570-571).

How can the call-center model be understood as contributing to deskilling? Quite obviously, the call center is associated with the business world. Numerous companies have instituted call centers in order to become more efficient and to cut costs. Call centers try to set up interactive voice response (IVR) systems such that IVRs handle about 80 percent of incoming calls. A great deal of work goes into trying to make IVRs as flexible and information rich as possible so as to handle an increasing percentage of calls. Simply put, IVRs do not require human intervention and are thus extremely cost-efficient. Those calls that cannot be handled by an IVR are put into an automated call distribution (ACD) queue, where they are routed to the next available agent. To manage the ACD queue in the most efficient way possible, the Erlang C algorithm is used to determine optimum staffing requirements. Developed in 1917 by A. K. Erlang, an engineer with the Copenhagen Telephone Company, Erlang C is a complex formula that takes into account the total traffic volume of arriving calls in a set period, the average amount of time spent per transaction, the average length of after-call processing time, and a carefully calculated acceptable service level, usually defined as 80 percent of calls answered within 20 seconds. Theoretically, companies can cut staffing requirements by lowering service levels—for instance, defining an acceptable service level as 75 percent of calls answered within 30 seconds—and by encouraging workers to spend less time on each client call and in after-call processing.

In the library realm, the quest for efficiency and cost-cutting is, on the surface, the primary force behind the fascination with call centers. Lurking beneath these ringing endorsements of streamlined, efficient service is a barely contained disdain for the complexities of library reference work and a devaluation of those aspects not specifically connected to answering user queries. Consider Coffman and Saxton, who begin by suggesting that "the amount of down-time spent waiting around for somebody to ask a question" by reference librarians is a serious concern (p. 143). From the

managerial perspective, such down-time is lost time because professional staff are not spending their entire time answering reference questions. Coffman and Saxton are more than a little disconcerted by the fact that librarians “try to fill up these slack periods by ‘reviewing the professional literature’ and other odd tasks” (p. 143) or by “keeping kids quiet, scheduling staff, ordering supplies, presiding over children’s story times, checking books out, and other details of managing the building” (p. 154). In their minds, circumstances such as these “only raise even more fundamental questions about what the true professional functions are in a library, and how and where they should best be performed” (p. 154).

The scorn with which Coffman and Saxton view traditional reference work is palpable and visceral. Their use of quotes around the phrase “reviewing the professional literature” indicates that they do not think very much of this activity. They use the phrase “odd tasks” to relegate all other job duties of the reference librarian—such as reader’s advisory services, keeping abreast of current events and current reference sources in order to anticipate future reference questions, collection development responsibilities, and so on—to a very low level of importance. Finally, they utterly mock tasks associated with children and the smooth functioning of the library as a whole. In short, Coffman and Saxton do not put much stock in the view of librarianship as a female-intensive profession imbued with an ethic of caring and community service (Harris, 1992; Hildenbrand, 1985). Instead, their watchwords are efficiency and cost effectiveness. Their overall strategy is clear. First, call into the question the value of reference work by showing that the job includes many tasks that ought not to be worthy of a professional. Second, because reference work does seem to encompass such tasks, remove reference work from the ranks of professional positions.

Having identified down-time as a serious managerial problem, Coffman and Saxton quantify exactly how much time staff at the County of Los Angeles Public Library system spend answering reference questions. The 88 branches of the system answer 3,016,619 million reference questions per year, with the average length of each reference question being 2.87 minutes (172 seconds). These 88 branches employ 116 reference librarians; total staff time spent answering reference questions is 144,338 hours. However, using the Erlang C algorithm and assuming an industry standard service level of 80 percent of calls answered on average in 20 seconds, they calculate that “a centralized reference center could handle all of the 3,016,619 million questions with a reference staff of only 67, a 42 percent reduction of the 116 staff required to handle reference services as we now provide it” (p. 153). Moreover, these 67 staff would “be occupied and answering questions 89 percent of the time.” However, if the Erlang C algorithm was told that 116 staff would be working to answer *all* the questions, the staff occupancy rate would be only 51%, “which means they are spending half their time doing something other than reference” (p. 153). Because Coffman and

Saxton believe that anywhere from 50 percent to 80 percent of all reference questions "might not require" professional librarians, "a large percentage of the 67 staff needed to operate the networked reference service would not require professional degrees nor would they require professional salaries" (pp. 154–155). Because most of the 116 staff currently providing reference service do have professional degrees, the "potential cost savings of a centralized service staffed with a high percentage of paraprofessionals could be substantial" (p. 155). The call-center model allows not only for a drastic reduction in the number of reference staff positions, but also for a large-scale deprofessionalization of those positions that remain. Because the questions asked by patrons at reference desks are not really very difficult, they can best be answered by low-paid paraprofessionals who will do nothing else all day.

Yet Coffman and Saxton (1999) are not satisfied with this increase in efficiency and decrease in costs. For example, they are enthusiastic at this prospect: "Reducing the average question length by just 22 seconds, from 172 seconds to 150, would reduce staff requirements by over 10 percent from 67 to 60 positions" (p. 157). Here queries are turned into mere commodities. The goal is to answer them as quickly as possible in order to process more each hour, raising the productivity levels of the call center by employing fewer people. Similarly, McGlamery and Coffman (2000) wax eloquent about developing library Web pages so that more than 80 percent of user questions would be answered without recourse to human assistance. "We are calling these sites 'reference front ends'" they write, "and it is our hope that they will help answer a great many of the patrons' questions before they can be tempted to click on the 'Talk to a Librarian' button" (p. 385). Even if patrons do click on the "Talk to a Librarian" button, library staff "can be trained to use the resources on these key sites to answer the bulk of the questions" (p. 385).

The drive toward efficiency and low costs is never ending. No matter the scenario, very little room remains for professional librarians and subject specialists in the call-center model. From a metaphorical perspective, the situation is very much as described by Harris and Marshall (1998), who quote one library director who believes that paraprofessionals could be taught to handle reference questions "without running to mommy" (p. 578). In effect, call centers view "mommy"—the disparaging term with which this library director referred to professional reference librarians—as superfluous. As libraries try to cut costs by employing fewer librarians and more paraprofessionals, the roles of librarians will tend to become very broad—a circumstance that "will eliminate their ability to specialize in the areas of expertise that have defined the core of the profession" (p. 577). The result is a growing deprofessionalization of the profession as librarians try to conform to the prevailing view, as expressed by another library director quoted by Harris and Marshall: "It's a larger thing that makes a

librarian [and] it's got something to do with management, and commitment, and analysis, and adapting to change" (p. 579). Left unspoken, however, is the danger that, as librarians evolve into managers, they risk losing the skills that made them librarians in the first place. As their jobs are continually simplified, as paraprofessionals take over these newly simplified tasks at a substantially reduced wage scale, as directors tell librarians that librarianship doesn't have anything to do with such "little things" (Harris & Marshall, 1998, p. 579) as cataloging, collection development, and, now, reference service, librarians may be forgiven for wondering about the intellectual content of librarianship and, indeed, whether there is such a thing as librarianship.

THE POLITICS OF CALL CENTERS

If librarianship is losing its intellectual component through such proposals, what is the face of the call center itself? First, the lists of skills that the new type of reference worker should possess mentions nothing about subject-area knowledge. Instead, necessary skills are confined to proficiency in various types of hardware and software packages, navigating already-constructed Web pages offering scripted answers, and keyboarding. Second, library call-center proposals completely overlook the negative aspects of private-sector centers, often identified as electronic sweatshops. The neglect of these negative aspects is perhaps the most surprising feature of the embrace of the call-center model by Coffman and Saxton (1999), Ferguson (2000), and McGlamery and Coffman (2000).

There is a substantial body of evidence documenting how call centers, whether inbound or outbound, exploit and degrade workers. Building upon Michel Foucault's insight that Jeremy Bentham's design for the ideal prison, the Panopticon, is a metaphor for the workplace of the future, Fernie and Metcalf (1997) argue that the call center is the ultimate manifestation of employer control and worker powerlessness. A philosophy of electronic surveillance discipline encourages an ever-faster pace of performance. Because the tasks performed in call centers are highly routine, highly intensive, and limited in range, Thurow (1989) sees call centers as a significant step toward the industrialization of the service sector. Richardson, Belt, and Marshall (2000) point out not only that the "Taylorist fragmentation of work and flat organizational structures" in call centers restricts opportunities for career progression, but also that, because call centers have few links with local areas, they can "seek out even cheaper locations in order to achieve further reductions in the costs of production" (p. 358). Finally, call-center workers are at constant risk of being technologically displaced as newer and more sophisticated technologies take the place of their already routinized and automated tasks.

With regard to the working conditions in call centers, there has been a long litany of well-documented complaints. Conlon (1998), reviewing the

results of a survey by The Radclyffe Group, a management consulting firm, outlines three major factors that contribute to worker dissatisfaction: inflexible rules that restrict employee movement away from their desk or cubicle area; high call quotas; and strict monitoring of quantitative and qualitative performance levels through electronic surveillance and tracking of calls. Higgins (1996) describes the sense of isolation that call-center workers experience: "It's supposed to be part of the new economy, but the setup is really very old fashioned—'we're the boss, do what we say' sort of thing. At one place, they seemed to think they were the commanders on *Star Trek*—we all worked down on the floor, while the supervisors were on 'the bridge,' looking down on us" (p. 8). Menzies (1999) outlines the rigid adherence to a predetermined script and the constant lurking of supervisors who reprimand any deviation from this script. As Richardson, Belt and Marshall (2000) and Buchanan and Koch-Schulte (2000) note, such conditions taken as a whole have resulted in serious health concerns: workers complain about tension, stress, sleeplessness, headaches, eye strain, voice loss, hearing problems and burnout. McFarland (1996), describing strenuous governmental efforts (including tax incentives and resettlement bonuses) that resulted in a massive influx of call centers into New Brunswick, Canada, observes that local workers have no illusions about why call-center companies choose to move there: "The company feels that New Brunswick is a cheaper place in wages and benefits. They see New Brunswick as desperate . . . [where] workers will settle for anything as long as it is a job [but] the strategy of bringing in low-paying jobs is creating a poor society" (p. 13). Reporting on the explosion in call-center jobs in Jacksonville, Florida, Bryant-Friedland and Finotti (1998) note that the annual average wage of \$21,000 paid to call-center employees does not compare well to the citywide average of \$26,365 in all other industries. As in New Brunswick, there was a concerted strategy by Jacksonville city officials to attract call centers in an effort to create jobs in a depressed area. Together with promises of cheap land and low building costs, business development officers touted "a plentiful supply of low-wage workers, especially Navy wives and college students," thus institutionalizing a permanent low-income ghetto. Studying the concentration of call centers in the depressed mining area of Newcastle in northeast England, Richardson et al. (2000) observe that "the availability of a sufficient pool of quality labor at a lower cost than other regions" is the reason most cited by managers for the decision to set up shop (p. 362). It is therefore not surprising, as Karr (1999) reports, that call-center turnover rates average about 31 percent in the United States, significantly above a rate of 18 percent for companies in other industries. Richardson et al. cite one female call-center agent who links infantilizing treatment with high turnover rates: "When I first came here . . . I was like a small child, they were watching me . . . I think most call centres are like that and that's why there's such a high turnover of staff . . . because people just get fed up with it, the

pressure" (p. 364). Workers are beginning to unionize and embark on strike tactics to win better working conditions, increased autonomy, clearly demarcated career progression ladders, and overtime pay for working evenings, nights, and weekends.

Given the almost overwhelming derision with which call-center work is characterized, many management consultants have proposed ways to improve call-center working conditions. Curtis (1999), for example, recognizes that ways must be found "to make the job fulfilling as call centers get larger" (p. 33) and recommends that companies give serious consideration to "localisation," that is, mini-call centers "manned by between ten and 15 people, with the feel of a local community center" (p. 37). Thaler-Carter (1999) recommends a series of incentive compensation plans to motivate call-center employees, and especially lauds team-based and department-based objectives leading to low-cost or no-cost incentives such as "fun" gifts or prizes (plastic eggs in Easter baskets with a little prize or toy in each egg and a matchbox-size company car are two of the ideas mentioned) that go a long way to "encourage productivity and create energy" (p. 104). Conlon (1998) outlines a proposal to encourage the creation of "an environment of personal and team accountability" (p. 92). Although these suggestions appear plausible on the surface, they do nothing to address the problematic structural nature of the call-center industry as a disciplinary Panopticon. For instance, a primary purpose of the idea reported by Conlon (1998) is to make employees themselves participants in surveillance activities. Instead of focusing on systemic inequities in the call-center milieu that make for disgruntled workers, employees are urged to develop team spirit such that "if one rep is taking too many breaks, instead of reporting him to a manager, a teammate can confront that person herself about the behavior" (p. 92). Thaler-Carter's (1998) insight about team-based incentives that stress "fun" (albeit infantilizing) rewards is thus a logical addendum to the Panopticon metaphor: employees motivated by team-based incentives will be more prone to participate in surveillance of their fellow employees, all in the name of winning prizes for the department as a whole. Instituting a policy of rewards does nothing to reduce the amount of electronic surveillance. It even encourages workers to process calls more quickly because those who do not win incentives understand that, insofar as the automated call distribution (ACD) system tracks the amount of time spent on each call, rewards are based on pre-determined quantitative measures that can be increased at the discretion of management. Even Curtis's (1999) notion that mini-call centers are the wave of the future does not alter the fundamental nature of call-center work, because technology exists to monitor productivity across a virtual and decentralized network. Even though people may be working in small groups of 10 or 15 people, or even at home by themselves, each computer is still being centrally monitored. In addition, the mini-call center model allows companies to avoid a rising wage structure

such as might develop at large central facilities, due to possible low-employment rates in the surrounding area or to unionization pressures. As Curtis (1999) notes, the small telecenter approach allows the company "to set up cost effectively wherever there are people willing to work," a wily euphemism for a constant search for low-wage geographic pockets.

Despite the numerous drawbacks of call centers, it is somehow appropriate—although no less disconcerting—that Coffman (1999) embraces the retailer Amazon.com as a model for the library of the future. He could not be more fervent in stating his belief that Amazon.com is the epitome of a successful and technologically innovative organization with a firm commitment to superior customer service. Using the Amazon.com paradigm, he pictures the ideal local library as providing access to 43 million items (the approximate total of all items listed in the OCLC database), all accessible through a catalog designed "for the selection decision, with records that carry reviews, cover art, tables of contents, excerpts, and any other kind of content that could help a person" (p. 47). Accessible seven days per week and 24 hours each day, the new library will even provide home delivery of requested books so that patrons' time is not wasted. Customer service representatives will always be friendly, knowledgeable, and willing to help patrons with their questions and book selections.

The reality of Amazon.com is starkly different from Coffman's inexplicably naïve vision. Customer service representatives—the backbone of Amazon's operation—make only between \$10 and \$13 per hour. As Leibovich (1999) reports, they are expected to respond to 12 e-mails per hour; "lagging productivity—fewer than 7.5 e-mails an hour for an extended period—can result in probation or termination." Employees complain that their self-worth is measured in "how many e-mails I could answer": "we're supposed to care deeply about customers, provided we can care deeply about them at an incredible rate of speed." Another employee recounts how, after a telephone conversation lasting three or four minutes with a customer to whom he recommended a Civil War-era fiction book, he was chastised by a supervisor who warned him to "watch the schmoozing." In other words, everyone is expected to work constantly at an "uptime" pace. The infamous Amazon memo entitled "You can sleep when you're dead" is a brutal reminder of how unforgiving work expectations have become for customer-service representatives.

Amazon regularly orders mandatory overtime to deal with backlogs of unopened e-mail and telephone calls. Managers outline goals to be met—goals couched in the rhetoric of team-building and sacrifice: "You own this goal. I own this goal. We all will share in the consequences of failing to meet this goal." "Fun-productivity" races held at midnight—where the prizes are "sundaes, smoothies, trail mix, pretzels, award-winning coffee and other yummy things"—are presented as "great news" even though they count as required overtime. But for many customer-service representatives, such

management methods such as these are “like Communist China under Mao. . . . You’re constantly being pushed to help the collective. If you fail to do this, you’re going against your family. But if this is a family it belongs on Jerry Springer” (Leibovich, 1999).

When losses mounted and stock prices collapsed in 2000, the concept of family and “goal ownership” evaporated very quickly. Amazon instituted a round of layoffs and began to outsource customer service representative jobs to Daksh.com, with the expressed goal of having about 80 percent of its customer service work done in India (Guyatt, 2001; WashTech, 2000). Whereas Amazon custom service representatives in the United States earn on average \$1,900 per month, Indian workers can expect to earn no more than \$109 to \$175 per month (WashTech, 2000). In an effort to reach acceptable levels of profitability, Amazon is thus participating in the global outsourcing movement, taking advantage of countries with relatively weak labor standards and low wage structures. It was perhaps inevitable that dissatisfaction with Amazon work practices reached such heights that persistent efforts were undertaken to form a union; as one worker bluntly explains, “Amazon may be the symbol of the new economy, but it has the worst of the working conditions of the old economy” (Greenhouse, 2000a, C3). Preaching the mantra of ownership and family, Amazon has responded with anti-union activities, distributing instructions to managers about how to dissuade workers from signing union membership cards (Greenhouse, 2000b). In short, Amazon.com stands as a case study of the negative features associated with call centers. The fact that Coffman (1999) has unlimited praise for the Amazon.com business model and management ethos is troubling to say the least, considering his desire to make call centers the heart of the 21st-century library.

WOMEN AND CALL CENTERS

Perhaps the most salient and intriguing feature of call centers is the preponderance of female employees. Most scholars agree that about 70 percent of call-center employees are women and that many employees find themselves on “the periphery of the labour market for some reason,” usually poverty, transience, or lack of education (Buchanan & Koch-Schulte, 2000, pp. 9–10, 16–19; Richardson, Belt, & Marshall, 2000, pp. 359–361). While the part-time student component of call-center work tends to be evenly distributed between men and women, full-time work is dominated by women who, as one worker put it, “probably have not progressed beyond high school or who have families or for some other reason would not be able to find a job” (Buchanan & Koch-Schulte, 2000, pp. 15–16). This division of labor has gendered consequences, namely the ghettoization of women in routinized, low-paying jobs without much chance for advancement. Buchanan and Koch-Schulte (2000) also document how sexism plays a role in such gender imbalance. Women may modulate the pitch of their

voices in order to deal effectively with male callers. "Guys will respond to you better if you speak in lower tones like a husky voice. . . . It's almost a sexual preference. In that sense, I think women get the short end of the stick because it almost brings them down to sexual objects. . . . I think we should give women more credit than just pretty faces and nice-sounding voices" (Buchanan & Koch-Schulte, 2000, p. 15).

Although inbound call centers tend to provide more stability and chances for advancement, Buchanan and Koch-Schulte (2000) suggest "the dynamics of the industry are such that the 'good jobs' are disproportionately distributed to the few young men in the labour force" (p. 14). Indeed, relatively high-paying inbound call centers that require special expertise (like mutual fund sales) and that consequently require phone representatives to pass exams are almost exclusively dominated by men. In broad terms, men working in call centers have specialized skills that give them numerous opportunities for advancement, while women tend to be concentrated in positions that demand sympathy, listening, interpersonal, conflict-resolution, and communication skills—care-giving functions that may be summarized as "emotional labour" (Buchanan & Koch-Schulte, 2000, pp. 48–51). Moreover, women do not have much opportunity to learn new and challenging skills that would lead to better-paying jobs simply because they are valued for their care-giving role and for their ability to keyboard quickly (Buchanan & Koch-Schulte, 2000, p. 53). Thus, despite the gleaming appearance of many call centers, with rows of high-powered computers and sophisticated Web-based digital interfaces, many female workers view their workplaces as nothing but factories. "You think this is an advanced office and this is on the cutting edge of technology, or whatever. It is not that at all. It is a factory" (Buchanan & Koch-Schulte, 2000, p. 53).

As libraries move toward the vision of Coffman (1999), Coffman and Saxton (1999), Ferguson (2000), and McGlamery and Coffman (2000), where paraprofessionals in call centers perform functions previously the preserve of reference professionals, there is a danger that they will become even more complicit in what Ellis (1997) identifies as "the economy of off-shore information production" (p. 112). For instance, many cataloguing and document-conversion tasks are performed in less-developed countries for low wages and in unsafe working conditions. These are low-skill data-entry jobs held by women at a rate approaching 98 percent. Reviewing other studies on the subject, Ellis summarizes that these "data-entry women are locked into physically damaging work with little or no opportunity for making transitions to traditionally male (and increasingly scarce) technical or supervisory roles." He quotes one supervisor of data-entry clerks who notes "Women are better at this kind of job [because] they are more dexterous, more disciplined, more caring about the quality of work and more agile" (pp. 117–119). This echoes the comments of a call-center supervisor worker interviewed by Buchanan and Koch-Schulte (2000), who attrib-

uted the preponderance of women in the industry to the fact that "there were more typing skills among women, and also, I suppose, you aren't trained to anything else. . . . It's a great job for somebody who types real fast and sits there" (p. 53). Studying the phenomena of data processors in various Caribbean countries, Skinner (1998) also offers evidence for the mostly female composition of data clerks. One government official is of the opinion that "women have a natural proclivity for work that is tedious and monotonous" and that "a man just won't stay in this tedious kind of work, he would walk out in a couple of hours" (p. 83).

Siegel (1998) notes that the Silicon Valley high-tech workforce also has characteristics of gendered labor segmentation. Even though women make up only 38.1 percent of these workers, women constitute 79.1 percent of clerks, versus 22.6 percent of managers (pp. 99-102). These statistics indicate the larger forces currently affecting library restructuring and reorganization. Harris and Marshall (1998) remind us that a prevailing attitude among some library directors is that the work traditionally performed by higher-paid women in the library system is overrated, silly, or comprised of what Coffman and Saxton (1999) call "odd tasks." Thus, in the view of library directors, "it makes good sense to pass it on to other women who are a little lower-paid, and who can, with training, take on increased responsibility" (Harris & Marshall, 1998, p. 579).

This deprofessionalization of reference responsibilities is, from one perspective, tantamount to a ready acceptance of a large number of female call-center clerks. They would perform tasks that are tedious, monotonous, and partake in what Jarman, Butler and Clairmont (1998) term "the routinisation of human interactions" (p. 2). At the same time, this approach suggests the valorization of managerial and systems-administrator tasks which, according to the statistics gathered by Siegel (1998), are held mostly by men.

Even though proponents of digital reference call centers in academic and public libraries would strenuously argue that their vision of the future is very far removed indeed from the electronic sweatshop model, the call-center analogy used to describe digital reference work is, on both practical and symbolic levels, extremely telling. Since librarianship is a female-intensive profession that has traditionally paid relatively high wages, any attempt to offload reference functions to paraprofessionals working in a setting characterized by constant electronic surveillance, low wages, labor segmentation, work routinization, stress, and high levels of employee churn is a worrisome setback. Library directors currently do not seem overly concerned about "the economy of offshore information production" described by Ellis (1997), so it is not inconceivable that they would come to accept as normal, and perhaps even desirable, a situation in which clerical workers process reference questions under less than stellar working conditions. For all intents and purposes, library directors who are enthusiastic about call

centers appear to be willing victims of technological determinism. It is almost as if they are saying to themselves: If the technology exists and if everyone else is using it, why shouldn't I use it too? The opportunity to cut costs and show oneself to be an adept and forward-thinking manager is irresistible. Scant heed is given to Gramsci's (1971) warning against the danger inherent in blindly accepting that which seems to be the commonsensical approach and "the spontaneous philosophy which is proper to everybody" (p. 323). In short, unexamined acceptance of late 20th-century information technology (IT) has created a hegemonic dynamic insofar as non-IT-based solutions are held to be without much value.

REVALUING READING AS THE BASIS OF REFERENCE WORK

To be sure, there are numerous suggestions about how to improve the call-center experience. Buchanan and Koch-Schulte (2000) propose a series of significant ameliorative actions, including monitoring the "gender and racial segmentation of workers" in call centers, ensuring that call centers create intellectually challenging "good jobs" that provide advancement and career opportunities, regulating the working conditions with regard to pace and stress, and emphasizing the value-added and skilled nature of call-center work (pp. 63–72). These changes, if instituted, would certainly improve library reference call centers. Yet the dangers remain: not only would the "bad jobs" prevalent in call centers assume an increasing share of the totality of jobs in a library universe heretofore characterized by "good jobs," but the fundamental human-centered and caring aspect of traditional reference work would also be eviscerated in the rush for efficiency and cost-effectiveness.

Ferguson (2000) would disagree with this assessment. Instead, he believes that a three-tiered integrated "on-site/remote service matrix" (p. 306) would ensure that the "enduring service values [of librarianship] can be reinterpreted and sustained in meaningful ways by promoting user satisfaction that derives from personal contact and by increasing the ability to verify customer satisfaction in arenas not currently monitored well" (p. 308). He envisions first-tier gateway services ("basic use and finding questions related to core information resources") staffed by students and paraprofessionals who make use of asynchronous user aids through Customer Support Centers; second-tier intermediate services ("general research support and initial triage of complex software or hardware issues; referral to experts") staffed by paraprofessionals, computer consultants, and librarians making use of e-mail reference; and third-tier expert and specialized services ("subject or resource experts by appointment or during office hours") staffed by librarians and computer consultants (p. 305). Yet, at the same time, he foresees that an "Internet call center" would be the cornerstone of all these services, dealing around the clock with most questions and situations, making only a small number of referrals to librarian experts

(p. 308). Keeping in mind that, according to Coffman and Saxton (1999), the primary purpose of library call centers is to increase efficiency and reduce costs by decreasing time spent per call and hence the number of staff required to take calls, the nature of the "personal contact" that Ferguson (2000) still believes to be possible is, to say the least, problematic.

From another perspective, Ferguson's plan also devalues the majority of reference questions and information requests by assigning them to less-qualified personnel. In effect, he forgets that each reference question comes with a complex history and, often, a psychosocial context. As Dervin (1992) has shown, individuals seeking reference assistance may be thought of as experiencing a gap in their understanding of a particular situation, whether intellectual, psychological, emotional, practical, or recreational. They have a discontinuity in their knowledge about something, and they are unable to continue on their journey of achieving knowledge without obtaining "gap-bridging" information (p. 68). Reference staff may therefore be instrumental in offering a series of "helps" that can assume such diverse forms as initiating a new idea or a new way of looking at things; offering a sense of direction; assisting in the development of a new skill; regaining control; moving out of a bad situation, or obtaining support, comfort, or reassurance (p. 75). Kuhlthau (1993), moreover, sees the librarian as a counselor who establishes, with the patron, an ongoing dialogue "that leads to an exploration of strategy and to a sequence for learning" (p. 144). Typically, the dialogue may be reformulated, redefined, and nuanced throughout the many stages of the information-seeking process, as librarians "facilitate understanding, problem solving, and decision making" (p. 188). In the call-center model advocated by Coffman (1999), Coffman and Saxton (1999), Ferguson (2000), and McGlamery and Coffman (2000), with its emphasis on speed and rote answers through electronic FAQs, the opportunities for caring, personalized reference service delivered by library professionals who understand the psychological insights of Dervin (1992) and Kuhlthau (1993) would be few and far between.

Is there another approach to rethinking reference service that would valorize the intellectual contribution of the individual reference librarian to a greater extent and still provide value-added service? Early practitioners of library reference work were convinced that general-interest reading, especially reading of newspapers and magazines, was an integral aspect of success on the job. Walter (1925) urged librarians not only to promote reading among the public, but also to realize that "[i]n self defense the librarian [too] must read if she wishes to succeed." (p. 31). More specifically, to keep up with the pace of world events, "One often must get out of the current to see the progress of the stream and to notice that it is the stream and not the banks which moves" (p. 32). Continuing his analogy, he suggested that, because "[i]nformation is the real water of life to the mind," it is "most often in books, in magazines and newspapers that one can get the

best perspective of social progress in the limited periods of leisure [available to the librarian]." Wyer (1930) urged librarians to "[f]aithfully read at least one local newspaper" and to "[k]eep somewhat in touch with affairs of state and nation as well as city . . . through a metropolitan daily or an able review" (pp. 120–121). Hutchins (1944) was adamant about the central role that newspapers play in the provision of superior reference service. She noted, first, that "a very large proportion of the reference work in practically all types and sizes of libraries is accomplished by means of periodicals and newspapers (p. 103). Newspapers and periodicals are "indispensable" because they "supply the most up-to-date information on all subjects" (p. 103). Ranganathan (1961) also insists on the value of reading newspapers and periodicals on a regular basis: because "sometimes research studies and investigations are reported in the newspapers at their inception. Sometimes newspapers have feature articles on important conclusions brought to light." Accordingly, a "close scanning of both newspapers and periodicals is really necessary for useful, intelligent long-range reference service" (p. 349) because the reference worker must constantly anticipate the types of questions that could possibly be asked, and because periodicals "provide opportunities for the reference librarian to keep himself [or herself] abreast of the world's progress in knowledge," in effect "keep[ing] ahead of the game [and at] the very wave-front in the advance of knowledge" (p. 352). When reading newspapers and periodicals, "the variety of questions actually brought up by enquirers and of the questions anticipated on the basis of local knowledge and contemporary happenings should get interlaced in the mind of the reference librarian" (p. 350).

The emphasis on reading current publications is undergoing a renaissance. There is some indication that a handful of companies are recognizing that general-interest reading (sometimes called "environmental scanning") by their in-house corporate librarians contributes to the bottom line. For example, the librarian for Highsmith Inc. spends "20% of her time scanning newspapers, magazines, on-line databases, and Web sites . . . and her antennae are always up for interesting tidbits from television, radio, advertising, or casual conversation" (Buchanan, 1999, p. 54). The significant point here is that she never knows what she is looking for or what she will find. Instead, she must be alert to a wide variety of issues, themes, social trends, and occurrences, and her perusal of media sources must be sufficiently detailed so that she can reject material as well as flag it as potentially valuable. As a result, she becomes a walking, well-informed resource for everyone in the company, not just for those who have assigned her specific tasks and searches. In addition, Thomsen (1999) suggests that one important way for librarians not only to survive constant change, but also to provide the type of service users demand and expect in a fast-paced world, is to read newspapers, magazines, and generally make themselves into "active and informed citizens" through a diversified and continuous current-awareness program

(p. 32). Indeed, in order to anticipate the myriad questions and concerns that affect “the lives of our patrons and sends them off in search of information” and to avoid embarrassing gaps in their own cultural knowledge, Thomsen argues that reference librarians, “should spend several hours a day reading a variety of newspapers and magazines—cover to cover—listening to National Public Radio (NPR) and watching CNN” (p. 34).

BENEFITS OF NEWSPAPERS AND MAGAZINES IN LIBRARY REFERENCE WORK

In sum, intensive reading of a wide array of current publications gives librarians intellectual tools with which to confront an equally wide array of information requests. They can then use this knowledge to understand the comprehensive context of the question and to make innovative connections to other fields and subject areas, giving the library customer a richer and more robust answer than if they had very little background knowledge about the particular question. Or, quite simply, they can provide the answer in a shorter time, thus fulfilling one of the desiderata of reference work in the digital era.

How does this work in practice? To give some idea about the range of situations where knowledge of information contained in newspapers and magazines has had or could have a demonstrated positive effect in reference work, I want to present four documented examples from often overlooked reference texts.

In one of his reference case studies, Ranganathan (1961) tells the story of the “Kra Canal Enquiry.” Here, “a young graduate stepped into the library. Mentioning an alleged agreement between Siam and Japan, he asked for information on Kra Canal.” Unfortunately, the librarians “were absolutely ignorant” of [the problem]” (p. 391). A long and frustrating hunt for the desired information commenced. Librarians and the patron worked hand in hand, searching unsuccessfully through the following sources: encyclopaedias; books on Siam; book on Japanese foreign policy; books on naval bases in Singapore; and books on Far Eastern problems. Subsequently, periodicals were searched, with a little more success. The magazine *Pacific Affairs* contained an article called “The Kra Canal: A Suez for Japan?,” which contained a number of footnotes leading to the *Parliamentary Debates*, which in turn gave a number of references to key articles in *The London Times*.

Grogan (1987c) describes how “a young girl obviously on her way home from school” approached the reference librarian wishing to know as much as possible about the first woman in space, whom she said (incorrectly) was Sally Ride (pp. 65–67). Vaguely aware of the recent publicity surrounding Sally Ride, the librarian searches first (unsuccessfully) in the American, British, and international versions of *Who’s Who*. He then searches *Biography Index* and finds references to only very brief articles that he knows will not be very useful to the patron. He then remembers the existence of a

magazine entitled *Current Biography*, looks at the cumulative index of the most recent issue, and locates a reference to a cover story on Sally Ride in an issue about three or four months old. The article is about three pages long, mentions that Sally Ride was the first American woman in space, and contains a wealth of personal information about the astronaut.

Grogan (1987a) recounts how a public librarian was asked about spontaneous human combustion. Convinced that such a thing cannot exist, she looked in five encyclopaedias, but only found that this phenomenon occurs in hay, coal, and other such substances. She then consults the *Oxford English Dictionary*, which states that human combustion is possible in people who consume much alcohol. She then searched the library catalog. Finding nothing there, she was “at something of a loss where to turn next” when she asked a senior colleague, who immediately told her, “There was a letter in *The Times* about that a year or so ago” (p. 9). Once located, this letter turns out to be the key to finding a vast array of information about spontaneous human combustion.

Grogan (1987a) describes a request for information about the present whereabouts of Noah’s ark. The unsuccessful search encompassed, again, numerous encyclopaedias, numerous periodical indexes, and the *British National Bibliography*. Two promising-sounding books were indeed found but did not contain the desired information. Grogan then relates how “[t]his was the point at which the librarian indicated that he had taken the search far enough” (p. 18). But, some months later, “by one of those chances that happen so frequently in reference work,” the librarian noticed “in his routine scanning of *The Times*” a story, datelined Ankara, that reported on a recent discovery of “a boat-shaped formation found 5,000 ft. up Mount Ararat in Eastern Turkey” which the archaeologist was confident would turn out to be Noah’s Ark (p. 19).

In the first two examples, intensive reading of newspapers or magazines could have facilitated answer provision. Librarians would have been aware that they had read about the Kra Canal in a newspaper and would have immediately gone to *The Times* index to find the appropriate issue. Or, if the article in question was too recent to have been indexed, they could have leafed through back issues to locate the correct article. Either way, much time could have been saved. Similarly, in the case of the young girl and Sally Ride, even the most cursory scanning of recent magazines and newspapers—the idea of environmental scanning as described by Buchanan (1999)—would have allowed the librarian to locate the cover story article about this famous American astronaut. The last two examples, on the other hand, provide ready evidence that newspapers indeed do serve a valuable function. Even a seemingly innocuous letter to the editor can become the starting point for finding an answer to a difficult reference query such as the one about spontaneous human combustion. In addition, as the Noah’s Ark example demonstrates, even the most intractable queries can

frequently be resolved through careful attention to information contained in newspapers.

Although these examples come from an era when online information sources were nonexistent or in their infancy, newspapers and magazines still remain an unparalleled source of up-to-date information. Consider, for instance, five seemingly simple reference questions.

- What is the state flag of Mississippi?
- What is the state motto of Ohio?
- Where is the border between the Canadian province of Québec and Labrador?
- Where is the seat of government of Equatorial Guinea?
- What is the minimum wage in Duluth, Minnesota?

At first glance, these are ready reference questions that could be answered by looking in almanacs, statistical sources, atlases, encyclopaedias, or various online compilations of facts. In reality, they address complex issues that have no one simple answer. Indeed, these complex issues were described in newspapers and magazines throughout the fall of 1999 and spring/summer of 2000, and reference librarians who had not been regularly scanning newspapers and magazines would not have been able to provide correct answers to these questions. In the case of the Mississippi state flag, Firestone (2000) reports that Mississippi has had no official state flag for 94 years because "during a codification of all state laws in 1906 all laws before that date had been repealed unless they were specifically put into the new code of laws" (p. A1). Because the state flag (with its Confederate symbol) that everyone considers to be the state flag had been so designated by an 1894 law, but had not been placed in the 1906 codification, it could no longer be considered as the official state flag. The question about Ohio's motto is equally complex. Simply put, it is not "With God, All Things Are Possible" because in April 2000 the United States Court of Appeals (6th circuit) ruled that the words are a direct quotation from the New Testament, clearly Christian, and thus an infringement of the separation of church and state (Fritsch, 2000, p. 2). In the case of the border between the Canadian province of Québec and Labrador, the problem lies in the fact that Québec has never officially recognized that Labrador is part of Newfoundland. Even though a British Privy Council decision in 1927 gave Labrador to Newfoundland and most international maps and atlases show Labrador to be part of Newfoundland, Québec believes that Labrador is its own territory, and that, accordingly, there is no border (McKenzie, 1999, D1). With regard to the seat of government of Equatorial Guinea, a correct answer would have been, again, almost impossible to find without recourse to newspapers. Onishi (2000) reports that, as part of a novel developmental strategy, Equatorial Guinea has decided to move its government to a new town every six months so as to stimulate economic, social, and cultural progress in hinterland

areas. The question about minimum wages in Duluth, Minnesota, is perhaps the most intriguing of all. One of the most obvious places to look would be Minnesota state government Web sites such as the Minnesota Department of Labor and Industry. Indeed, this site does contain a page entitled "Wage, hour and employment laws," which states that minimum wages in the state are defined according to the size (wealth) of the employer and how recently the worker was hired. Thus, a large employer—whose annual gross volume of sales made or business done is not less than \$500,000—would have to pay a minimum of \$5.15 per hour, while a small employer only has to pay a minimum wage of \$4.90 per hour. Although technically accurate, this information would nevertheless be false for Duluth insofar as this city is among the few that have adopted a "living wage" law, which mandates that any company doing business with the city of Duluth must pay a wage that is above the state minimum (Uchitelle, 1999, C1).

Librarians who relied on convenient print or electronic sources such as encyclopaedias, almanacs, atlases, and statistical sources to answer these questions about Mississippi, Ohio, Québec/Labrador, Equatorial Guinea, and Minnesota would have given outdated and incorrect information to users. Knowledge of the information contained in newspapers and magazines would have permitted these same librarians to provide a correct answer in a relatively short time. As Grogan (1987b) suggests, newspapers are irreplaceable repositories "of much information completely unavailable elsewhere,"—all the more so because "a substantial minority of the enquiries in all types of libraries stem from the news of the moment" and because they present "the best source there is for assessing the *Zeitgeist*, the life of the time as seen through the eyes of contemporaries" (p. 94).

CONCLUSION

The theories of Pierre Bourdieu, as explicated in the series of conversations collected in Bourdieu and Wacquant (1992), provide some insights about the processes of change in library reference work. Bourdieu formulated the notion of "field," defined as a "social microcosm" or a "configuration of objective relations between positions." There are numerous "fields" in society, and each follows "specific logics" (p. 97). For instance, the world of economics is a field, as is the world of art, religion, or literature. At the same time, however, the limits of a field are fluid and "*always at stake in the field itself*" (original emphasis; p. 100). A field, Bourdieu believes, can be compared to a "game," with the difference that a field follows "rules, or regularities, that are not explicit and codified" (p. 98). In addition, a field has "stakes which are for the most part the product of competition between players" (p. 98). Each participant or player has one or more "species of capital" (knowledge of a certain skill, for example) which can be deployed during the competition. For Bourdieu, it is the "species of capital" that is "efficacious in a given field, both as a weapon and as a stake

of struggle" (p. 98). Whoever has capital can wield power and influence. In a sense, capital allows an individual "to *exist*, in the field under consideration, instead of being considered a negligible quantity" (original emphasis; p. 98). Accordingly, it is "the state of relations of force between players that defines the structure of the field" (p. 99). To clarify his point, he compares "species of capital" with tokens of different colors. The position of each player within the field thus depends not only on the number and arrangement of that individual's tokens, but also on "the *evolution over time* of the volume and structure of this capital" (original emphasis; p. 99). More important, individuals can decide to play in order to transform, partially or completely, the immanent rules of the game. They can, for instance, work to change the relative value of tokens of different colors through strategies aimed at discrediting the form of capital upon which the force of their opponents rests (e.g., economic capital) and to valorize the species of capital they preferentially possess (e.g., juridical capital; p. 99).

A field is therefore dynamic. Indeed, it can be said to be a "*field of struggles* aimed at preserving or transforming" the configuration of "potential and active forces" within it (original emphasis; p. 101). Because the field is "a structure of objective relations between positions of force," participants within the field attempt to "impose the principle of hierarchization most favorable to their own products" (p. 101).

If librarianship is considered to be a field in Bourdieu's terms, it is possible to understand it as a "field of struggle" in which one form of capital (subject knowledge of a diverse array of topics) is in the process of being discredited. Another form of capital (ready acceptance of any form of technological innovation) is being valorized. Lengermann, Niebrugge-Brantley, and Kirkpatrick (1996), using the sociological theories of Dorothy Smith's *The Everyday World as Problematic* and *The Conceptual Practices of Power*, locate the library as the "mediator between the sphere of the extralocal apparatus of ruling" (defined as the sphere shaped by "capitalism and patriarchy" and including such "documents of control" as laws, contracts, news reports, media portrayals, etc.) and the "sphere of the local actuality" (defined as possessing a feminine consciousness insofar as it is concerned with the "dailiness" of living, personal relationships and concrete coping activities) (pp. 84–85). As the technology-driven information revolution marketed by "the extralocal apparatus of ruling" is enforced as a new "textual revolution" to which all must submit, the library, a place inscribed with a feminist notion of professional service, is faced with numerous challenges to remain "a supportive environment focused on the needs of individuals in the local actualities of lived experience" (p. 93). In effect, reference librarians are in danger of allowing their field to be defined by external forces that have decided to make technology-based solutions the primary "species of capital" in an effort to "impose the principle of hierarchization most favorable to their own products."

Reference librarianship is undergoing profound changes. On both symbolic and practical levels, there is competition to lay claim to the field of reference librarianship, to make it conform more closely to the interests of one group of players who feel that they are currently in the ascendant. The ideas of this group of players have been represented by the ideas found in Coffman (1999), Coffman and Saxton (1999), Ferguson (2000), and McGlamery and Coffman (2000). These players are deploying their "species of capital"—belief in the efficacy of technological innovation as represented in the call-center model—in order to render less valuable the "species of capital" of reference librarians whom they accuse of being concerned only with "'reviewing the professional literature' and other odd tasks" such as "keeping kids quiet, scheduling staff, ordering supplies, presiding over children's story times, checking books out, and other details of managing the building" (Coffman & Saxton, 1999, pp. 143, 154). However, these supposedly valueless tasks go a long way toward creating "a supportive environment focused on the needs of individuals in the local actualities of lived experience" (Lengermann, Niebrugge-Brantley, & Kirkpatrick, 1996, p. 93) and privileging an in-depth subject knowledge about a wide variety of topics. From the perspective of Bourdieu, this is a strategy "aimed at discrediting the form of capital upon which the force of [an] opponent rests" and emphasizing the superiority of an opposite species of capital. The end result is that the "relative value of tokens of different colors" has changed in the field of reference librarianship. From this perspective, technological innovation has become a weapon allowing one group of individuals to exert power and influence on their own behalf and to marginalize the contributions of more skeptical others. It allows this first group of players to paint themselves as innovators in the profession, and it renders the second group a "negligible quantity." In a very real sense, technological innovation is being construed as a synecdoche for progress, which in turn will allow the field of reference librarianship to survive. The terms of the debate thus permit any skeptic of technological innovation to be branded an opponent of progress and thus an impediment to the field's survival.

The specter of deprofessionalization of the reference function looms ominously. An increasing percentage of reference questions are being of-flooded to paraprofessionals working in call centers notorious for low pay, high turnover, lack of advancement opportunities, and stressful working conditions. As reference functions become more and more automated through call-center interactive voice-response systems and automated call-distribution systems, the intellectual component traditionally associated with reference librarianship becomes increasingly etiolated. Indeed, the kind of subject knowledge gained from an intensive program of reading is fast becoming an endangered "species of capital." It may seem trivial to suggest that reading newspapers and magazines can help to re-intellectualize reference work and reestablish a "species of capital" that could be "effica-

cious in a given field, both as a weapon and as a stake of struggle." But, as the examples discussed above suggest, there is real value for reference work in reading newspapers and magazines, especially since such reading often leads to the reading of book-length matter. Although few would discourage reference librarians from reading intensively and extensively in diverse subject areas, by the same token, such reading is not, for the most part, encouraged and valorized as a vital component of reference work. Were it to be so encouraged and valorized, such inherently deprofessionalizing proposals as digital reference call centers, with their implications of labor market segmentation and the feminization of "bad jobs," might prove to be unnecessary.

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