Juggling Multiple Social Worlds

Distance Students Online and Offline

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Using the Internet means bringing into our offline lives yet another social world, one in which we operate through media, communicating and maintaining ties with people who live at a distance and who we may rarely or never meet. How successfully do we manage integration of this new world into our existing world? Do worlds collide or seamlessly integrate into a cohesive whole? For 1 year, the authors followed 17 students as they engaged in a distance learning program. The authors explored their involvement with the online learning community and how this affected their relationships with family, work, volunteer, and peer groups. Students' satisfaction with the program increased, and anxiety about operating in the online world decreased, with increased involvement with the learning community. This was realized at the expense of offline communities and activities. However, the authors also found a reverse trend when students reengaged with offline life as they neared the end of their program. This work highlights the importance of temporal aspects of involvement in online worlds and provides some insight into the priorities, needs, and rewards involved with managing multiple worlds.

As the Internet becomes integrated with our lives, we bring into our offline lives another social world (Strauss, 1978) where we operate through media, often at a distance, and with people we may rarely or never meet (Wellman & Gulia, 1999; Wellman et al., 1996). Despite increasing use of Internet technology, most of those who add an online world to their existing worlds enter a new domain. In doing so, they add new norms and conventions for interaction; expand networks of friends, coworkers, and colearners; and accept new ways of maintaining ties with others. When a new online world is added, how do participants manage relations among worlds? Do worlds collide or are they seamlessly integrated into a cohesive whole? Are we faced with a competitive process where time in one world is stolen from another or a collaborative process whereby conduct and content in one world aid and influence that of another?

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One increasingly popular arena of online life is Internet-based distance education (Harasim, Hiltz, Teles, & Turoff, 1995; Renniger & Shumar, 2001). This has extended the reach of universities and other educational organizations and increased opportunities for students to pursue degrees. Yet little is known about the impact of this form of education on students' lives. How do students manage their lives with the addition of this online world? How is the online experience more than just adding the educational component to their lives? How do they prioritize different aspects of their lives? Answering such questions and understanding the burdens and challenges associated with online education is important for preparing students entering and coping with such programs. Thus, we are interested in the social phenomena associated with balancing or even juggling online and offline commitments and in using this understanding to enhance the overall experience of students.

To explore the character and impact of Internet-based distance education, we have been studying the experiences of distance students in a graduate degree program at the Graduate School of Library and Information Science (GSLIS), University of Illinois, known as LEEP (Library Education Experimental Program).[1] In this article, we present results from a qualitative analysis of longitudinal interviews with 17 students that describe how students' online and offline worlds overlap and how they manage and juggle their multiple world responsibilities.

A SOCIAL WORLDS PERSPECTIVE

A social world consists of people who share activities, space, and technology and who communicate with one another (for a full explanation of this concept, see Strauss, 1978). Each world is coordinated around a primary activity (e.g., learning, tending family, earning a living) and is usually associated with one site (e.g., the university, the home, the workplace), and yet these worlds intersect. It is this interaction that is of interest. As Strauss (1978) noted, "A major analytic task is to discover such intersecting and to trace the associated processes, strategies and consequences" (p. 123). Here we explore the intersection of online learning with other worlds that students inhabit. We find this perspective useful because it "makes a strong contribution to understanding the complexities of human social organization by aiming to grasp rather than deny them" (Clarke, 1991, p. 119). It promotes exploration of all aspects of an individual's experience, recognizing that social worlds emerge from the way that individuals allocate time and resources. It also lacks the affective baggage of the often imprecise term *community* and allows description of spheres of individual activity without necessitating the attainment of intangible, group-oriented experience.

A number of recent studies have found this approach useful for understanding how individual involvement in multiple worlds affects perceptions and use of technology. Covi (1996) described how scientific researchers' multiple social

world memberships interact to affect the way they use digital libraries; Fitzpatrick, Kaplan, and Mansfield (1996) found that systems administrators' involvement in multiple worlds affected their perceptions and use of their work space; and Star, Bowker, and Neumann (in press) showed how involvement in multiple worlds affected the use of information systems.

In the Internet context, the social worlds perspective leads us to consider all of an individual's worlds, not just online ones, and the way in which online and offline life intersect and interact with each other. This is in contrast to approaches that tend to classify the Internet as a social world in itself. For example, a number of articles about the HomeNet project discussed how using the Internet affects other aspects of people's lives (Kiesler & Kraut, 1999; Kraut, Kiesler, Mukhopadhyay, Scherilis, & Patterson, 1998; Kraut, Patterson, et al., 1998), and Nie and Erbring (2000) discussed the social consequences of innovation and how the Internet affects personal interactions.

Treating the Internet as one social world is not without consequences. Examining time spent on the Internet tends to obscure the use of technology for a specific social purpose. The approach implies that when people begin a new activity, such as Internet use, all the time spent doing the new activity is subtracted from other activities. This hides the way that activities overlap and how time spent online can benefit offline relationships. Such a priori definitions of what constitutes a world fail to acknowledge the way in which individuals spread their social relations across multiple means of communication and social contexts, blurring locational and medium-specific definitions of worlds (Haythornthwaite, 2000; Haythornthwaite & Wellman, 1998; Wellman & Hampton, 1999; Wellman et al., 1996). Executives conduct business on the golf course, we receive family phone calls at work and business calls at home, and we use the Internet to maintain local and distant ties with those who share common interests. The Internet defies designation as maintainer of one social world—it is instead a medium through which we have the opportunity to maintain multiple social worlds.

The social world perspective is a particularly useful way to frame examination of distance education students because they are involved in many spheres of activity and must cope with what at first seem separate worlds of online and offline commitments. We turn now to the multiple worlds of these distance learners, beginning with an overview of their educational environment and proceeding to the results of our analysis.

THE DISTANCE EDUCATION ENVIRONMENT AND DATA COLLECTION

The distance education program option known as LEEP allows students to complete a master's degree in library and information science (LIS) at a distance through courses conducted via the Internet. Students begin their program with a

2-week intensive on-campus session ("boot camp"). All remaining courses are taken from home via the Internet, with students required to come to campus once a semester. Distance courses are conducted using a combination of synchronous and asynchronous interaction. Live lectures (given from twice a semester to weekly, depending on the class) are delivered via RealAudio and use Internet Relay Chat (IRC) for student questions and discussion. Web boards (Web-based bulletin boards) are used for class discussions and exercises and for program-wide announcements and discussion. All students have e-mail accounts, and a toll-free phone number is available for calls to campus. Assignments, which may include group projects, are submitted as Web pages, Web board postings, or attachments to e-mails, and less frequently by fax and regular mail. Grading and comments are returned to students via regular mail or e-mail.

For 1 academic year, we followed 17 students as they began and progressed through their distance education experience. Four 1-hour phone interviews were conducted with each student in midterm fall 1998, near the end of the fall 1998 term, midterm spring 1999, and near the end of the spring 1999 term. Interviews were tape recorded and transcribed. Names used below are pseudonyms, with the names reflecting the gender of the interviewee.

The interviewees were at various stages in their degree program: Of the group, 3 began the program in 1996, 2 in 1997, and the remainder in 1998. All were new to this type of program and to distance education. Each student worked outside the home (16 full-time and 1 part-time, but full-time by the end of the year), and most (12 of 17) in library or library-related endeavors (e.g., archives), with 1 to 20 years' experience. Students were all mature adults living in their own accommodations, usually with a spouse or significant other; 3 had small children and 4 had grown children; and only 2 lived alone.

Our interviews explored students' involvement with the online learning community and how this affected and was affected by their relationships with family, work, volunteer, and peer groups. Analysis of each set of interviews was used to formulate hypotheses and areas of questioning for the following interviews. Analysis consisted of coding the data for themes in student experiences, comparing for commonalities and differences, and analyzing the themes that emerged (for details, see Haythornthwaite, Kazmer, Robins, & Shoemaker, 2000). Questions focused on the exchange of resources between the interviewee and people in their personal social network (Haythornthwaite, 2000, in press; Wasserman & Faust, 1994; Wellman, 1997). We explored involvement with and obligations toward fellow students, family, friends, parents, coworkers, and so forth; who provided social, technical, and other support; who helped students manage classwork, child care, household chores, and so forth; and what kinds of online and offline activities students engaged in and with whom.

An earlier article described how students strongly perceived LEEP to be a community, one primarily founded on interactions among students (Haythornthwaite et al., 2000; see also Kazmer, 2000). They provided each

other with social support, companionship, major emotional support, and sociability. At first this environment is unknown territory; norms and conventions are sought but little understood. Writing publicly through Web board postings combines the agony of self-exposure with the self-doubts of the returning student (for an examination of concerns about self-presentation, see Bregman & Haythornthwaite, 2001). However, it is not long before students are old hands at online exchanges, carrying on conversations according to the norms of this environment.

THE MULTIPLE WORLDS OF DISTANCE LEARNERS

Involvement in any intensive program can be expected to affect other aspects of students' lives, and here we focus on how involvement in an intensive online experience interacts with obligations and commitments in other domains. Our attention to the management of different social worlds derives from a desire to prepare new students as they enter the program and to make recommendations for the program. We wanted to know what helps students to work through and complete this program. Other research has pointed to a loss of real-life engagement with increasing online engagement (e.g., Kraut, Patterson, et al., 1998; Nie & Erbring, 2000). A program that takes too much from offline life may become unmanageable for students. Thus, we are interested in the extent to which LEEP interferes with offline involvement, what impact this has on students' lives, and where that impact becomes critical for remaining in the program. At present, the program has a very high retention and completion rate, a situation we want to maintain.

The first step in understanding the interaction of worlds is to identify the separate worlds in which students are involved. Our interviews reveal three mandatory worlds that individuals dwell in and rotate through on a daily basis: LEEP, work, and home. Obligations in each cannot be shirked, although occasionally they can be delayed. There are also other optional worlds: extended family and friends, volunteer work, and the LIS profession.

THE LEEP DISTANCE LEARNING WORLD

LEEP is inhabited by instructors, administrators, support staff, and students. Among these inhabitants we can distinguish social circles within the LEEP world, such as cohort members who shared the same boot camp, students who have been or who are in the same class, circles of close friends, students who have worked on group projects together, and administrator-student and instructor-student combinations. However, when students refer to their LEEP world, they are usually referring to time spent with other students: Their bonding and sense of a LEEP community comes from interaction with other students while

grappling with technology, discovering communication norms, progressing into the LIS profession, and sharing a world that no one in their local world understands (for details see Haythornthwaite et al., 2000). Because our examination is taken from the perspective of the student, our discussion of the LEEP world generally refers to the student-student LEEP community.

WORK WORLD

Work encompasses where students earn their living, their job, and the people with whom they work. Work world members include supervisors, coworkers, and others who work within the same organization. Supervisors have often been instrumental in helping individuals enter the program, and their support makes it easier for students to reconcile their LEEP and work worlds. Whether work is in the same domain as LEEP also makes a difference for students. Synergy between what is learned and experienced in LEEP and what is valued and rewarded at work plays an important part in integrating these worlds. Those in unrelated work fields express a craving for contact with the profession that increases as they continue through the program, whereas those in related work fields find immediate applications for knowledge gained in LEEP. Working in a common domain provides students with access to willing and informed coworkers, and through them with access to further remote coworkers. Moreover, their coworkers' familiarity with the program confers immediate prestige on the student and acceptance of the student's goals. Those outside the profession find it harder to gain this recognition or understanding.

HOME WORLD

Home primarily comprises immediate family—spouses, significant others, and children below college age. Young children occupy a central position in this world. They require attention at home, and parents are involved with their school and extracurricular activities. Although spouses and significant others are highly important to the LEEP students' personal worlds, it is children who take first place in their attention and prioritizing.

OPTIONAL WORLDS

The optional worlds include, in decreasing order of obligation, other family and close friends, remote family and old friends, and volunteer groups (e.g., parent-teacher organizations, church, civic organizations). Although geographically close others tend to get less attention while an individual is involved in LEEP, students report increased contact with remote relatives and old friends as a result of e-mail connectivity and the students' new and growing presence on the Internet.

The professional library and information science world is another optional world, but one that becomes more significant to students over time. As they progress through the program, they increasingly identify with the profession and are identified by others as members of the profession; they become aware of the principles behind the rules applied in local practice. This world is enacted through a mix of membership in professional associations, participation in association meetings, interactions at work, and interactions within libraries and with librarians.

JUGGLING MULTIPLE WORLDS

> Enrico Rastelli, the most legendary juggler of the twentieth century . . . stands, ostrichlike, on one leg, with a large ball balanced on the top of each foot, one on his bent knee, one in each hand, and one on top of his head. A stick extends from his mouth, and a ball perches on the end of the stick, balancing yet another stick, which is balancing yet another ball. The juggler looks like a human house of cards. (Levine, 1998, p. 76)

Juggling—a term offered by several students—is an apt metaphor for students' mode of operation. Students juggle, as well as handle, decide, rearrange, or accommodate LEEP and their other obligations. For example, Holly feels that "anybody who's a mom and who's juggling work, family, and this LEEP program" will understand her experience. Like Enrico Rastelli, they balance multiple responsibilities in a continuous state of precariousness.

The juggling image also accords with Strauss's (1978) comment that "most social world and subworld entries involve *orbiting* processes; i.e., moving from one to another, retaining both or dropping the original, plus simultaneous memberships" (p. 124). Students enter the LEEP world, but the LEEP world also enters their array of orbiting worlds. Although in principle adding LEEP is the same as adding any new social world, the online environment offers extra challenges. Students must learn how to handle LEEP, including how to operate the technology, how to communicate online, what the rules and protocols are, and how long tasks will take. They add not just an extra world but one with new rules of entry, exit, and engagement.

Juggling LEEP with ongoing activities requires active management and conscious attention. Strategies for juggling include integrating LEEP into the orbit, accomplished consciously by prioritizing and scheduling time and effort, and isolating LEEP for attention, often by carving out personal space for LEEP work. Over time, the process of switching between and juggling obligations in multiple worlds gives way to synergy, in which what is learned in one world helps in another. The next sections examine managing strategies for successful LEEP engagement, then examine how juggling evolves into synergy for many students.

LET THE JUGGLING BEGIN

Ted, like Holly quoted before, is adept at juggling. He manages work, school, family, travel, and professional writing responsibilities. In his first year, Ted had to apply extra effort to build a schedule that would enable him to stay involved with his family and still get some sleep. He made a conscious decision to put off tasks, such as gardening, that could be done when he was less busy, and to add tasks that supported his LEEP work, such as implementing changes to technology at home (including adding a telephone line). He prioritized his children's activities as number one, even if that meant missing a LEEP class or taking a lower grade in a course.

Ted, and many like him, bring LEEP into their lives as an extra world. Unlike on-campus students, who generally are pursuing the degree full-time and have often preplanned by leaving work, LEEP students drop very little. In this sense they are similar to on-campus students who take the degree part-time while holding full-time jobs. However, the LEEP student's load is different because of the newness of the computer-based distance environment. They integrate not only the world of education but also the world of computer-mediated communication into their lives.[2] Students remarked that they are getting a dual education—one in the subject area and one in the social and technical use of communication technologies.

Students prioritize and schedule their time and effort. Most students report that more effort is needed to maintain a presence in the virtual LEEP environment than they believe would be needed in an on-campus setting (Haythornthwaite et al., 2000). This adds to their overall load; newer students like Jeff often say that assignments "took a lot longer than I expected" and that they feel compelled to work harder to project a good image online (e.g., in their Web board postings) (see Bregman & Haythornthwaite, 2001; Haythornthwaite et al., 2000).

At first, students focus on managing additional time demands within the 24-hour day by engaging in an ongoing process of assessing what has to be done and what can wait, letting go of things that are reparable (such as close family relationships) or expendable (like watching television), cramming what has to be done into the remaining hours of the day during the semester, and using breaks as opportunities to catch up on delayed activities and relationships. Managing strategies include prioritizing and planning, scheduling and appropriating time and space, and calculated neglect and repair of specific activities.

PRIORITIZING AND PLANNING

In allocating time and effort, students balance emotional needs (e.g., with family and children) with task needs (e.g., schoolwork), and accomplishing tasks (paid work, dinner, and homework) with managing relationships with inhabitants of their worlds (children, spouses, bosses, coworkers, friends, and

family). They decide which of their worlds is more important and then which tasks and relationships are most important within the world. They identify first the expendable tasks, then the reparable ones, and finally the crucial ones. Although prioritizing revolves around LEEP (a strange new constant that has a high priority associated with students' lifelong goals), it is not the top priority at all times. Work and home, particularly children, compete equally for time and attention, so each is prioritized and reprioritized over time.

Some students plan ahead for the semester. They decide how many worlds to juggle and, like Holly, drop optional activities before they begin LEEP, or, like Beth, decide that LEEP must be balanced with demands of other worlds:

> Before I started LEEP I was real involved in [a particular civic organization] here in my town, and I was on the board and real active, and I pretty much had to just forgo that completely. (Holly)
>
> My rate is only one course a semester because I have to do all the [children's] sports and the academic [LEEP work] and maintain my family. (Beth)

Others, such as Barbara, demonstrate more day-to-day planning:

> As far as family activities . . . what typically would happen is you know if there was a family activity that was going to take place, say, over the weekend when I was going to be doing some studying, I would do as much of the activities then as I could and then . . . maybe if I could stay up later that night you know to do the work.

Although Ted deals with more minute-to-minute planning,

> I still have not been able to teach my kids not to disturb me when I'm working. It's hard to do when they come up with a math problem they don't understand or a fight. . . . You have to stop and quell that.

Holly and others find they have "had to say 'no' to a lot more activities: involvement in church, involvement in my kids' school, socially." They say no because they have responsibilities in other worlds, which have to be managed by planning:

> I have a family, I have to look at my time and say oops, I've got a couple of hours block on Saturday to do this, I can't plan to do other things. So I've really found over the last year especially that I'd had to be much more of a manager of my time. (Holly)
>
> Rather than being able to say, "Okay, well, yes, I can just put some laundry in and then run out the door and spend the rest of the afternoon [with extended family] doing whatever." . . . I have to say things like, "No, I've got to at least spend a few hours today working on this" or, "Six hours today doing this and then maybe tomorrow we'll see." (Barbara)

Although according to Beth, adding the LEEP world "cramps your time," successful planners—such as Holly, Barbara, and Beth—are active planners who can say, "I know what to do and how to allocate my time."

At the other end of the managing continuum are those who manage on the fly—cramming, losing sleep, or skipping meals rather than saying no to activities and relationships. Ellen admits that "sometimes my recreational activities interfere with when I need to be sitting alone doing my homework." She attributes this in part to the lack of synchronous time for class, that "there's no set time to sit down." The immediacy of the real world of friends overshadows for her the call of the virtual world. Many, even those who are in control of their planning, steal time from sleep for LEEP work:

> Sometimes I don't get to my work until 9 o'clock, so by the end of the week I'm desperately needing sleep. (Ted)
>
> I'm up until 1 o'clock or 2 o'clock . . . not just one at a time, or once a week, but a few nights a week to do the work because that's when it could be done. (Barbara)

Setting priorities is not done once and for all. Although some students do make firm decisions on priorities before beginning the program (e.g., Beth), all must at times make choices about what to complete and what to let slide. Those who drop activities before beginning the program often see time-consuming participation in the LEEP world as temporary and have a longer view of when reparation can be made. Barbara talks about trade-offs in terms of these short- and long-term effects. After some 1 and 2 o'clock bedtimes, she admits that

> I might not be 100% as productive at work [after late night studying], but for me that is a short-term situation. I know that the long-term effect of me being involved in this program and getting the knowledge I think is going to . . . outweigh those drowsy moments.

Students in their first semester often make on-the-fly decisions. They may be aware of the need to prioritize, but have not yet developed strategies for doing so. Doris, in her first year as a LEEP student, explains,

> Part of my problem, why I'm writing the paper at night and things like that, is because I don't set priorities, I don't forgo enough, and maybe I should just sort of accept that I should.

Similarly, Ted found out the hard way about the importance of setting priorities:

> I remember from my first assignment I did an all-nighter, then went to work the next day. At my age I can't do that any more.

As students prioritize on the fly, they follow a consistent hierarchy of dispensing with activities. First to go are solitary leisure activities such as

television, reading, needlework, and gardening. Next are social leisure activities with friends such as going to the movies or out to dinner. Volunteer work, if not dropped before beginning LEEP, is dropped or reduced at this stage. Next, classes, work, sleep, and even eating are compromised.[3] Students may begin to use class time for other homework, work time for LEEP, and sleep time for anything else—prioritizing has given way to cramming. The clean separation of worlds fragments as one world intrudes on another and time and energy are borrowed from one world with a promise of repayment in the future. Last to go are time with family, particularly children, and schoolwork itself. But even these can give way: Family has to "understand that [Mommy or Daddy] is doing work now and can't be disturbed" and expectations for grades can be reduced.

The new demands on students' time are not simply schoolwork in a traditional sense. Social associations with other students take time and include socialization into the profession. Learning includes not just subject content but also how to implement and use the technology, how to function socially in a virtual learning environment, and how to juggle priorities in multiple worlds.

We should not see on-the-fly prioritizing as a failure to prioritize, schedule, and stick to a plan, but rather as the reason for success. As Mark Levine (1998) remarked,

> It isn't simply that jugglers can do things that other people can't, I thought, but that jugglers are a peculiarly apt embodiment of the human effort to cope gracefully with more demands, from more directions, than one person can reasonably be expected to manage. (p. 76)

We note that the ability to cope gracefully, or even to cope at all, may distinguish these students from others who try to juggle multiple worlds. Both deliberate planning and coping with change on the fly are important for balancing worlds. Although we believe that other populations may also function in this way, it is possible that such coping strategies are a function of the maturity and higher educational attainment of these students. Involvement in online worlds may overwhelm less accomplished users, creating the kind of withdrawing from real-world activity observed in other studies.

SCHEDULING AND APPROPRIATING

CLAIMING TIME AND TERRITORY FOR THE LEEP WORLD

Although students juggle multiple worlds, they occasionally need to exist in one world, separated from the others. One priority is to concentrate on LEEP work without interruptions.[4] Even students who prioritize cannot succeed without creating time and space to accomplish prioritized activities. Allotting fixed periods of time for tasks in LEEP is initially difficult for students. They are unfamiliar with the technologies, norms, and protocols of the online environment;

unable to determine how long schoolwork will take; and unable to find the time needed for LEEP work.

One technique is to leverage the benefits of the asynchronous portions of the program. Doris, for example, prefers to work at night; she discovered that she can do LEEP work then, leaving her daytime schedule fairly intact. Other students, like Clarissa, may not prefer to work at night, but that is the time most open in their schedules and is therefore when many LEEP tasks get done. Holly leverages the ability to work asynchronously to do her LEEP work in small chunks throughout the day. The interleaving and wedging of LEEP into nonreserved time becomes so important to these students that they can come to resent actual meeting times, for example, live classes and on-campus sessions. This can result in tension between synchronous and asynchronous operations in LEEP, reflecting a split between those who crave synchronous interaction and those who resent the imposition on their schedules.

Another technique used by students is to create territory in the home world where they can carry out LEEP work. Students have mixed success in this. Beth found herself moving to various locations in her house as family members needed each workspace for other purposes; Ted tried locations around his house to find a quiet space where he could work. Clarissa, after 1 year of distance education, was still wrestling with creating private space for herself and her school work. Even when physical space can be claimed, family members, especially children, often have difficulties accepting these boundaries between worlds as barriers to interaction. As Barbara mentioned, young children don't understand that "if Mommy has the door to her office closed you're not supposed to be bothering her." Clarissa does different kinds of work in her room, some of which is interruptible and some of which is not, and family members cannot tell the difference.

Even when they have claimed space, students still split their attention between the LEEP and home worlds. Because managing multiple worlds includes prioritizing on the fly, some interruptions take precedence over LEEP work. Maintaining relationships is part of multiple world management, and availability, especially for children, is often more important than completing school tasks.

Students often create LEEP space in their work worlds; they use computers at work to do their LEEP work (often with the consent of employers). Jerry, a 1st-year LEEP student, has a home office but sometimes does LEEP at work, despite the threat of interruptions:

> Every once in a while something will come up at work and I can't get away for the synchronous session at home so I'll be at work so I'll do it at work, but I try to do it at home so I can participate without getting phone calls and interruptions.

Thus, work, like home, often places the student in two worlds simultaneously, with people and activities from these environments interfering with attention to the LEEP world.

Another world separation technique is to keep involvement in LEEP away from the people in their other worlds—hoarding LEEP to themselves. Thus, Ellen says,

> As far as bringing someone else or a significant other to the on-campus,[5] I'm not ready to do that. I've heard other people say that too. "I'm not ready to mix that up just yet."

Many also become fatigued at explaining LEEP to others. Although eager to demonstrate it when they first begin, they soon do not want to have to explain it to outsiders any more.

Thus, whereas juggling is important in managing multiple worlds, so too is concentrating exclusively on particular worlds at particular times. Although this section has discussed how to give attention to the LEEP world, the following section describes how individuals pay back other worlds, creating the needed balance over time.

NEGLECT AND REPAIR

As students prioritize their multiple world activities, they decide that responsibilities in some worlds can be neglected with the promise of future repair. Relationships with spouses and partners, close and extended family, and friends most often require repair. Students depend on semester breaks and summers to nurture interpersonal relations neglected during academic semesters. Alice shared with us her experiences in prioritizing and repairing some interpersonal relationships. She maintained close touch with her family but found that involvement in LEEP reduced her visits with friends from once a month to once every 2 months and involved shifting visits to the summer when she did not take classes. To stem the potential impact of neglect on interpersonal relationships, some students do frequent "temperature taking," thinking about and discussing how both partners can continue to nurture the relationship. A common solution is to schedule time together, setting up dates to watch movies or just hang out (Kazmer, 2000).

Others find that the work world must be neglected, if not wholly given up. Barbara feels that the short-term loss of attentiveness to work will be repaid later with her increased knowledge. Sue, however, found no alternative but to change work worlds to accommodate her LEEP world:

> What I did was quit that job, because the director didn't want to be more flexible with more time off. I didn't want to ask her. I could see that she wasn't going to be flexible with it. So I quit that job and now I have a job with less hours. Now I have more time to do my homework and I did that on purpose, because I don't feel I need that extra stress.

However, like any other world, sometimes it is LEEP that must be neglected and revisited later. Doris, having a difficult semester personally, shared that after the loss of a good friend,

> It just seemed like a monkey wrench kept being thrown into my plan to be methodical about this, so I was kind of proud of myself for getting that assignment out of the way and just begin like, okay, now the crises have all past and I'm going to make more of a plan and stick to it.

Thus, a rounded view of students' lives considers not just the day-to-day rhythm of home, work, and school, but also the way in which individuals use the rhythm of the semesters to balance worlds.

FROM JUGGLING TO SYNERGY

Juggling requires constant attention, and students must be responsive to changes in each world for the next throw to be successful. For example, Clarissa rearranges her own activities to accommodate LEEP, but those rearrangements affect her husband, who had to miss activities to do child care; her work, where she had to take days to complete LEEP work; and her meeting schedules for other groups. Although students begin with multiple adjustments to separate worlds, soon they notice ways in which their multiple worlds blend together and help one another. Janet sums this up best:

> More than being an educational program, it's more a life program. I think in order to be in LEEP we have a sense of where you are and where you're going at home and at work and at school. In my past experience in graduate and undergraduate programs when you focus on school it's school and when you focus on home it's home. But here the lines are all very fuzzy. I didn't anticipate that, that the lines would be so fuzzy between work and school and home.

CROSS-WORLD SYNERGY

Where lines between LEEP and work, home, and other worlds begin to blend, students experience opportunities for mutual benefit. Instead of collisions, synergy develops between what they are doing and learning in LEEP and what they are doing in other worlds. Positive synergies have been seen primarily between LEEP and work, but also with all other worlds. These include the transfer of knowledge from one domain to another and access to a network of others on whom to call for expertise and advice (see also Nardi, Whittaker, & Schwarz, 2000).

LEEP AND WORK

Benefits flow from LEEP to the workplace as students gain course content and technical expertise that they can apply at work. They may be able to assume additional work duties or do projects for LEEP that can be used in the workplace. Barbara was given an extra opportunity at work specifically because of LEEP:

> Because of my involvement in the program, one of my colleagues said, "Oh you'd be a good person to do this . . . you should do the demo for this because she's a librarian and you're in the library school." . . . That was kind of nice. That was one where being involved with the program . . . made something happen that wouldn't have otherwise happened.

Course content can help students understand ongoing work practices. For instance, Alice, who had been working in libraries for several years before she entered the LEEP program, tells of understanding the "bigger picture" related to local policies:

> One of the rules in circulation in the library I'm working in now, you can't give out titles over the telephone. . . . People will call . . . and you have to do this kind of guessing game where you say, "Tell me the possible titles and I can tell you which one it is." . . . Since I've been doing the LEEP program, I understand that a library has a burden to protect peoples' privacy. . . . So the LEEP thing made me think more about that. Censorship issues and stuff like that that I haven't really thought about. Those kind of things are bigger picture, things that I would kind of think about every once in a while.

LEEP also provides students with access to a network of instructors and practitioners in various areas of LIS. They can marshal that collective knowledge to help solve problems in their own workplaces.

Whereas workplaces benefit from students' LEEP involvement, they support the students in many ways. Often students are given time and access to computers at work for LEEP. Students rely on resources at work, including library materials and knowledgeable coworkers. And just as LEEP course content can help workplace practices, the converse is true: Students often have a large body of experience on which to draw that helps them understand the material better and, when shared, helps other LEEP students. Jeff explains quite vividly these beneficial interconnections:

> Working at work is a lab for me to do library stuff. I mean for example we're talking about copyright or whatever, I mean that's a part of my job is to come up with a copyright policy. So it's like a place for me to apply everything that I'm learning . . . it's like a mutual benefit, what I'm learning helps me in my job, and having my job to work out the kinks and apply actually what I'm learning, mutually reinforces.

LEEP AND LIS PROFESSION

As students find increasing positive overlap between their school and work worlds, they begin to see that involvement in LEEP also interacts with their involvement in the LIS profession. Many students report feeling increased ties with the profession and greater understanding of its philosophy and practices. This helps them feel more competent and confident at work. Personal contact with members of the profession at conferences and other workplaces leads to a sense of personal belonging and helps in moving from a paraprofessional to a professional position. It helps in the LEEP world, too. For example, students who rely on the network of public librarians when they travel find that they can get permission to use public library Internet connections and other computer resources more easily because they are becoming members of the profession through LEEP.

Students also realize that the friends they make within LEEP will make up a portion of their professional cohort after graduation and that maintaining those relationships will help them as they complete LEEP courses and long afterward. Holly, who has already seen several LEEP friends graduate, explains this multifaceted benefit. She sees the LEEP community as

> a support system: an emotional support system, an intellectual support system, people you could ask questions, get information from. I also feel professionally it's a network. It's been interesting as I've been in it longer and I've seen people graduate and get jobs, that there are people that I have connections with professionally that were in LEEP that are in areas in work the same as mine.

LEEP AND HOME, FRIEND WORLDS

The worlds of home, extended family, and friends can also coexist beneficially with LEEP. These worlds often provide the emotionally supportive interpersonal contact that students say helps keep them going in LEEP. Home and friend worlds often provide technical equipment and support and are repaid with the technical expertise students gain from LEEP. Students leverage their new comfort with electronic communication to reestablish and strengthen ties with far away family and friends and to introduce technologies into their volunteer organizations. For example, Beth found that the expertise with technology she gained in LEEP allowed her to plan her family's vacations using the Internet; help her college-age daughter with information retrieval; and carry out banking, word processing, and scheduling online. Because of her example and her help, more of her geographically remote family has come online and she keeps in touch with friends and family all over the world. Another student helped establish a used computer distribution program to benefit low-income users. Thus, we see increased social contact associated with learning and using online technol-

ogies; however, we note that that this effect is not seen until students have gained confidence with the technologies and have become familiar with them over time.

COLLISIONS

Although synergies demonstrate the best of all worlds, not all overlaps between LEEP and other worlds are so smooth. Where lines remain hard and fixed, worlds cannot combine synergistically and may collide uncomfortably. Collisions occur when two or more worlds are competing for resources of attention or time; for example, a collision can occur between LEEP and the family when a LEEP class is scheduled during the dinner hour, when family members resent time taken away from other activities, or when new routines collide with old ones.

Sometimes LEEP and work are not synergistic. Sue, quoted above, changed jobs to manage LEEP. Others see no synergy between their current work and what they hope will be their future work. Doris works in a profession that she thinks is removed from LIS but hopes to move into an LIS job after graduating. To support herself, she continues to work in her first profession but feels keenly the absence of the synergy that she sees other students experiencing and wishes she did not feel such a disconnect between LEEP and her daily work.

Real life can also interfere with LEEP. Life events can become so overwhelming that LEEP falls by the wayside: Hospitalization, ill children, deaths of friends, family, and pets are all causes of collisions in which the LEEP world must be handled later. LEEP students praise instructors for their flexibility on course completion schedules in the face of such real-world interference.

DISCUSSION

We learn from these students that these many communication technologies provide a medium rather than a world—LEEP is a world, the Internet is not—and that the important issues in their lives revolve around managing multiple world relationships rather than managing online/offline dichotomies. Although it is easy for an outsider to consider LEEP students' worlds as divided between online and offline, dichotomizing their lives in that way does not accord with their experiences. When they talk about LEEP, they do not discuss it as a separate online activity. Instead, they talk about it in terms of the people, experiences, and tasks it comprises and how it interacts with home, work, and friends. The issue that emerges is not how students' manage online involvement but instead how they integrate this new world into their array of existing worlds. Juggling and synergy result from students taking an active approach to managing their multiple worlds, where one of those worlds just happens to include heavy use of Internet communications technologies.

Increasing involvement in an online environment is more complicated than a simple, unconscious transfer of attention from offline time. Students actively manage time, activities, and relationships; prioritizing what and who needs to be dealt with first, what can be dropped, and what can be left aside and repaired later. Children get high priority, but spouses, parents, and friends have to wait. Personal entertainment (television, needlework, and gardening) are dropped, and household chores are left until later. It is in the voluntary world that most activities are dropped (see also Putnam, 2000). Work—paid work—fades to the background if not compatible with LEEP, but it provides increasing synergy when compatible. These students' patterns of interaction suggest that adding an online world can increase and decrease social involvement, depending on the individuals' skills at multiple-world management, their familiarity with the technologies, or with the way they prioritize and enact cycles of neglect and repair of relationships.

Although we believe that other populations and online environments are likely to function in similar ways, we note the way in which LEEP has emerged for its members as a community (see Haythornthwaite et al., 2000) and not just an educational program may create a social world more completely than other online endeavors. Also, as noted above, LEEP involves graduate students selected because of the ability to succeed in such an intensive educational option. Their success in actively managing multiple worlds and experiencing beneficial overlap may result from their particular talents in organizing. However, this in itself is also an important factor to recognize. Not everyone may be able to juggle these multiple worlds, nor does everyone know how to do it at first. Online worlds may indeed displace offline worlds in a form of neglect without repair, or with repair so far in the future that it cannot be recognized today. As involvement in the program increases, students do withdraw from offline responsibilities, trying to create their own mental and physical space so that they can concentrate on LEEP work. They increasingly depend on social interactions with LEEP students who understand what one student called their "different kind of world." Yet involvement in LEEP increases opportunities at work, and experience with the technological environment provides many with synergy that allows them to help children with their schoolwork and increase contact with distant friends and relatives. Time stolen from family and other extracurricular activities is often only borrowed. Experiences gained in LEEP are paid back to other worlds as students become increasingly technologically and professionally savvy.

Using the social worlds perspective, we see the impact of online education or of the Internet as a complex interaction among multiple, sometimes competing, social arenas. We have seen, in some literature on the interactions between online and offline life, a way of discussing Internet use in fairly broad strokes (e.g., Kraut, Kiesler, et al., 1998; Kraut, Patterson, et al., 1998; Nie & Erbring, 2000). Our students' reports suggest that to evaluate the impact of the Internet it is important to understand the social worlds brought into play when people go

online and how these social worlds are juggled, integrated, and/or collide with other worlds, offline or on.

NOTES

1 For details on the Graduate School of Library and Information Science (GSLIS) Library Education Experimental Program (LEEP), see http://alexia.lis.uiuc.edu/gslis/leep3, and http://leep.lis.uiuc.edu.

2. One of the students was able to compare the experience of taking a degree by driving to a campus after work versus taking a degree via LEEP. This student felt that LEEP provided a great relief from the previous routine of driving to campus and very much enjoyed being able to be in the home when taking classes.

3. See also Putnam (1996), who reported that "harried souls do spend less time eating, sleeping, reading books, engaging in hobbies, and just doing nothing" (p. 6). Putnam went on to note that such people forgo these activities but still maintain their involvement in volunteer organizational activity. Here we find students drop volunteer work to maintain engagement in their important organizational activity, that is, LEEP. It is possible that LEEP fits the same niche in an individual's life as a volunteer group membership. Further research would be necessary to explore this possibility.

4. We can expect that there are also times when the students want to exist in the work or home worlds without interruption from LEEP. Because our interviews were about LEEP, we can only comment here on techniques for corralling time for work in that world.

5. Referring to the midsemester on-campus day for each course being taken.

REFERENCES

Bregman, A., & Haythornthwaite, C. (2001). Radicals of presentation in persistent conversation. In *Proceedings of the Hawai'i International Conference on System Sciences*. Los Alamitos, CA: IEEE Computer Society Press.

Clarke, A. (1991). Social worlds/arenas theory as organizational theory. In D. Maines (Ed.), *Social organization and social process: Essays in honor of Anselm Strauss* (pp. 119-158). New York: Aldine de Gruyter.

Covi, L. (1996). Social worlds of knowledge work: Why researchers fail to effectively use digital libraries. In *Proceedings of ASIS Mid-Year Conference*. San Diego, CA: Information Today.

Fitzpatrick, G., Kaplan, S., & Mansfield, T. (1996). Physical spaces, virtual places and social worlds: A study of work in the virtual. In *Proceedings of the ACM 1996 Conference on Computer Supported Cooperative Work* (pp. 334-343). Boston: Association for Computing Machinery.

Harasim, L., Hiltz, S. R., Teles, L., & Turoff, M. (1995). *Learning networks: A field guide to teaching and learning online*. Cambridge, MA: MIT Press.

Haythornthwaite, C. (2000). Online personal networks: Size, composition and media use among distance learners. *New Media and Society*, *2*(2), 195-226.

Haythornthwaite, C. (in press). Building social networks via computer networks: Creating and sustaining distributed learning communities. In A. Renniger & W. Shumar (Eds.), *Building communities: Learning and change in cyberspace*. Cambridge, UK: Cambridge University Press.

Haythornthwaite, C., Kazmer, M. M., Robins, J., & Shoemaker, S. (2000). Community development among distance learners: Temporal and technological dimensions. *Journal of Computer-Mediated Communication* [Online], *6*(1). Available: http://www.ascusc.org/jcmc/vol6/issue1/haythornthwaite.html

Haythornthwaite, C., & Wellman, B. (1998). Work, friendship and media use for information exchange in a networked organization. *Journal of the American Society for Information Science, 46*(12), 1101-1114.

Kazmer, M. M. (2000). Coping in a distance environment: Sitcoms, chocolate cake, and dinner with a friend. *First Monday* [Online], *5*(9). Available: http://www.firstmonday.dk/issues/issue5_9/kazmer/index.html

Kiesler, S., & Kraut, R. (1999). Internet use and ties that bind. *American Psychologist, 54*(9), 783-784.

Kraut, R., Kiesler, S., Mukhopadhyay, T., Scherilis, W., & Patterson, M. (1998). Social impact of the Internet. *Communications of the ACM, 41*(12), 21-22.

Kraut, R., Patterson, M., Lundmark, V., Kiesler, S., Mukhopadhyay, T., & Scherlis, W. (1998). Internet paradox: A social technology that reduces social involvement and psychological well-being? *American Psychologist, 53*(9), 1017-1031.

Levine, M. (1998, December 7-14). The juggler. *The New Yorker*, 72-80.

Nardi, B. A., Whittaker, S., & Schwarz, H. (2000). It's not what you know, it's who you know: Work in the information age. *First Monday* [Online], *5*(5). Available: http://www.firstmonday.dk/issues/issue5_5/nardi/

Nie, N. H., & Erbring, L. (2000). *Internet and society: A preliminary report*. Stanford, CA: Stanford Institute for the Quantitative Study of Society.

Putnam, R. D. (1996). The strange disappearance of civic America. *American Prospect* [Online], *24*. Available: http://www.prospect.org/archives/24/24putn.html

Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community*. New York: Simon & Schuster.

Renniger, A., & Shumar, W. (Eds.). (2001). *Building virtual communities: Learning and change in cyberspace*. Cambridge, UK: Cambridge University Press.

Star, S. L., Bowker, G. C., & Neumann, L. J. (in press). Transparency beyond the individual level of scale: Convergence between information artifacts and communities of practice. In A. Bishop, N. Van House, & B. Buttenfield (Eds.), *Digital library use: Social practice in design and evaluation*. Cambridge, MA: MIT Press.

Strauss, A. (1978). A social world perspective. *Studies in Symbolic Interaction, 1*, 119-128.

Wasserman, S., & Faust, K. (1994). *Social network analysis*. Cambridge, MA: Cambridge University Press.

Wellman, B. (1997). Structural analysis: From method and metaphor to theory and substance. In B. Wellman & S. D. Berkowitz (Eds.), *Social structures: A network approach* (pp. 19-61). Greenwich, CT: JAI Press.

Wellman, B., & Gulia, M. (1999). Net surfers don't ride alone: Virtual communities as communities. In M. Smith & P. Kollock (Eds.), *Communities in cyberspace* (pp. 167-194). London: Routledge.

Wellman, B., & Hampton, K. (1999). Living networked on and offline. *Contemporary Sociology, 28*(6), 648-654.

Wellman, B., Salaff, J., Dimitrova, D., Garton, L., Gulia, M., & Haythornthwaite, C. (1996). Computer networks as social networks: Collaborative work, telework, and virtual community. *Annual Review of Sociology, 22*, 213-238.