

Part V

The Internet at School, Work, and Home

Bringing the Internet Home

Adult Distance Learners and Their Internet, Home, and Work Worlds

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Abstract

Debate about the role of the Internet in everyday life has raised questions about whether time spent online provides benefits to the individuals who are online and the families and friends around them. While recent surveys provide data on the overall picture of Internet use, here we look at adult users' views of what is gained and lost with the addition of online hours to already full schedules. For one year, we followed seventeen adult students as they engaged in an Internet-based distance degree program. We explored their involvement with the online learning community, how this affected their relationships with family, work, volunteer, and peer groups, and how they managed and juggled their involvement in these multiple social worlds. We find that students' satisfaction with the program increased, and anxiety about operating in the online world decreased, with increased involvement with the learning community. Although this was often realized in the short term at the expense of offline communities and activities, we believe that taking this as a negative effect discounts the very real support that such students were receiving online from other students. Moreover, we find two encouraging effects for local communities: first, that both work and home environments gain benefits from students' online activity as more experienced students find and act on synergies between their online learning and work and home activities, and second that retreat from local community is only temporary as students make up for lost time with others during breaks, and re-engage with their offline life as they near the end of their program.

Authors' note

Our thanks go to the 17 individuals who gave generously of their time for the interviews that provide the data for this chapter; to Jenny Robins and Susan Shoemaker who were

active in interviewing and earlier analyses, and to Jeff Boase for helpful comments. This work was supported by a grant from the University of Illinois Campus Research Board.

Introduction

Debate about the role of the Internet in everyday life has raised questions about its impact on the home, friendships, and the social well-being of its users. Researchers agree that we are spending a lot of time online: nine hours a week on average for both work and non-work activities for US users (UCLA CCP, 2000). Disagreement exists on whether all this time spent online is providing benefits to the individuals who are online and the families and friends around them.

While recent surveys provide data on the overall picture of Internet use, here we provide a user's level view of what is gained and lost at home, with friends, and at work with these hours online. The Internet users in this study are not teenagers, nor are they spending their hours in the online games or anonymous chat rooms associated with the darker predictions about the impact of the Internet on "real life." Instead they are mature adults, with responsibilities and obligations to others, living with spouses and children and holding down full-time jobs, who have taken an intense, committed use of the Internet into their homes as part of a distance education degree program. They have made a serious life decision that a higher degree is important to them, and that the Internet option accords best with their ongoing commitments.

This chapter examines how involvement in this Internet-based distance program fit, and sometimes clashed, with the lives of adult distance learning students. These adults represent a new and growing sector of Internet users whose educational experiences will color their future use of computers and the Internet. Moreover, these adults are not without influence on others: bringing the online educational experience into the home has an impact on how children and spouses will use computers; becoming conversant with technology helps them bring others online such as relatives who live at a distance and people reached through volunteer work; and sharing their reports of the pros and cons of their online experiences can affect how others view online education, perhaps affecting also the future success of online programs. Educational programs can thus become a way in which the Internet reaches the home, even for those not directly involved in the program.

These adults are among the early pioneers in online education, and among the first to accommodate this type of experience into their offline lives. They did not know others who had taken a degree or even individual courses online and found that only other members of their program understood their "different kind of world" (a description from one of the students). They represent the beginning of a continuing and growing trend. As the Internet continues its penetration into work and home life, so does its presence as a medium for the delivery of education to students of all ages and walks of life, whether by established institutions of higher education or those in the private sector (Beller and Or, 1998; Gibson, 1998; Rout, 2001). In 1998, 85–90 percent of institutions of higher education with over 3,000 students expected to offer distance education (Gibson, 1998, editor's notes, reporting on a 1997 Chronicle of Higher Education study). The increasing percent of households with computers (65 percent of US households) and Internet access (43 percent with access from home; 55 percent of all Americans with access from home or elsewhere; Nie and Erbring, 2000) increases the potential number of online learners and also the likelihood that individuals will find themselves learning online. Increased home and work access, combined with increased efforts by institutions to offer distance education, increases dramatically the number of individuals who will be bringing an Internet education program home in the near future. Indeed, a *Wall Street Journal* article puts the expected number of US distance learners at 2.2 million for 2002, up dramatically from the 710,000 in 1998 (Grimes, 2001).

While distance education has been in place for a long time, Internet-based education is not a simple reworking of old paradigms. Greater expectations for interpersonal interactivity, collaborative learning, immediacy, "just-in-time" delivery, development of distributed learning communities, and technological competencies, make this a new endeavor for all concerned (Bruffee, 1993; Dede, 1996; Harasim, Hiltz, Teles, and Turoff, 1995; Koschmann, 1996; Renniger and Shumar, 2002). Students entering this domain must learn new norms about communication with instructors and other students. Whereas traditional distance courses consist of exchanges between instructors and students through broadcast and print media, newer online programs require peer-to-peer exchange, with students managing conversations and discussion online through media such as email, bulletin boards, and chat rooms. Using these new forms of communication requires learning new norms for conversation and community. These means of "persistent conversation," i.e., conversations

that "may be searched, browsed, replayed, annotated, visualized, restructured, and recontextualized" (Erickson, 1999) leave users unsure of communications norms. Even when familiar with a particular medium, local norms must be discovered and learned before students can feel confident about the online presentation of themselves and their work (Bregman and Haythornthwaite, 2001). New online learners get a dual education, including both the intended educational content of the program and grounding in the use of technologies for work and social interaction (Haythornthwaite et al., 2000).

Controversy about the Internet suggests on the one hand that the Internet reduces involvement with those with whom we share strong, local, interpersonal ties, taking us away from face-to-face involvement and potentially decreasing our overall well-being (Kraut et al., 1998; Nie and Erbring, 2000; Putnam, 2000). On the other hand, the Internet is seen as providing the means for increased contact with others, particularly with distant friends and relatives (Howard, Rainie, and Jones, 2001; Kraut, Kiesler, Boneva, Cummings, Helgeson, and Crawford, 2002; Wellman, Quan Haase, Witte, and Hampton, 2001; and this volume) and those with whom we share common interests (Sproull and Kiesler, 1991; Wellman, Salaff, Dimitrova, Garton, Gulia, and Haythornthwaite, 1996), and for increasing continuity with others as we move about daily, and/or as we move homes (Hampton and Wellman, 2001).

When many hours are taken from local, face-to-face activity and given to an online activity, it can be expected that disruption or displacement will occur. What we set out to explore here is what this disruption means to a set of individuals involved in intensive Internet use that is not shared with local family members. How does their time committed to the online endeavor affect their time with others? Does involvement pull them away from local family, work, or volunteer associations? What is the impact on friendships? Do they lose or gain friends while involved in the distance program? Are online friendships real and enduring, or merely instrumental connections to other students? Do they feel isolated and alone when spending time on the Internet? Is their Internet use and Internet experience a separate part of their life, cordoned off from work and family, or are there synergies between the online and offline worlds?

To explore these questions, we examined in detail the results of longitudinal interviews with 17 students (nearly 70 hours of interviews), and results from a one-time questionnaire given to members of the program in fall 1999. This chapter also draws on our earlier analyses

of these interviews that explored the presence and meaning of online community for these students (Haythornthwaite et al., 2000); the management and juggling of the multiple social worlds students cope with, including home, work, and the online education world (Kazmer and Haythornthwaite, 2001); and students' concerns about self presentation through the persistent conversations of email, bulletin boards, and online chat (Bregman and Haythornthwaite, 2003). We begin with a description of the distance, multimedia environment and the data collection, proceeding then to an examination of how students' experiences affect their involvement with others.

Media and Interaction in the Online Environment

The students in this study are enrolled in the distance option of an American university masters degree program. The option, known as LEEP, is given by the Graduate School of Library and Information Science at the University of Illinois.¹ Students complete a masters degree in library and information science (LIS) at a distance through courses conducted via the Internet. The program begins with a two-week intensive on-campus session ("boot camp"). All remaining courses are taken from home via the Internet, with required on-campus sessions once a semester.

Both synchronous and asynchronous media are used to deliver classes and to provide means for student-to-student, and student-instructor interaction. "Live" lectures (given from twice a semester to weekly depending on the course and the instructor's preference) are delivered via RealAudio, with the instructor speaking to the distributed audience. During the lectures, students use Internet Relay Chat (IRC) to pose questions to the instructor that are visible to all students. Both the broadcast lecture and the contents of the main class chat room are recorded and available for review by students. IRC is also used for discussion; students may gather in subgroups outside the main chat room as part of the lecture time. Sessions in these chat rooms are not recorded. Students also make use of IRC's "whisper" facility to pass non-recorded messages to specific, named other students during class sessions.

Along with lectures and synchronous discussion via IRC, courses make use of webboards (web-based bulletin boards) for class discus-

1 For details on the program see <http://leep.lis.uiuc.edu>.

sions and exercises. Students post comments or homeworks to the webboards where they are visible to other students and the instructor. Other program-wide webboards are used for announcements and discussion. All students have email accounts, and there is a toll-free phone number for calls to campus. Assignments, which may include group projects, are submitted as web pages, webboard postings, or attachments to emails, and less frequently by fax and regular mail. Grading and comments are returned to students via regular mail or email.

Data collection

For one academic year, from fall 1998 to spring 1999, we followed 17 students (13 female (76 percent), 4 male (24 percent))² as they progressed through their distance education experience. Hour-long phone interviews were conducted with each student mid-semester and near the end of each semester.³ Interviews were tape recorded and transcribed; names used below with quotes are pseudonyms reflecting the gender of the interviewee. Interviewees were at various stages in their degree program: three began with the first LEEP cohort in 1996, two began 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; 1 part-time, but full-time by the end of the year), most (12 of the 17, 71 percent) in library or library related endeavors (for example, archives), with 1 to 20 years experience. Students were all mature adults, living in their own accommodations, usually with a spouse or significant other; three had small children, four had grown children; only two lived alone.

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

2 The students are completing a degree for a profession that is female dominated. Proportions of women and men returning the questionnaire (86 percent female, 14 percent male) suggest that interviews slightly over-represent men for this particular program.

3 One student only participated in the first three interviews; all others participated in all four interviews.

set of interviews was used to formulate hypotheses and areas of questioning for following interviews; analysis follows grounded theory practice and consisted of coding the data for themes in student experiences, comparing for commonalities and differences, and analyzing the themes that emerged (Strauss and Corbin, 1990). Questions focused on social network aspects of social support, such as interactions between the interviewee and people in their personal social network (Wasserman and Faust, 1994; Wellman, 1997). We explored involvement with and obligations toward fellow students, family, friends, parents, co-workers, and so on who provided social, technical, and other support, who helped students manage classwork, childcare, household chores, and so on and what kinds of online and offline activities students engaged in and with whom.

In fall 1999 we gave a questionnaire to each student attending the on-campus mid-semester session. Questionnaires were distributed during class and handed to the researchers as soon as completed. Of the 138 students enrolled in the LEEP email list, 113 returned questionnaires (82 percent response rate). Of these, 97 (86 percent) were female, 16 male (14 percent). Most began their program in 1998 or 1999, with only 1 from the first cohort (1996), and 8 from 1997. Three-quarters (73 percent) worked full-time outside the home (79 outside the home full-time; 1 self-employed full-time; 3 full-time volunteers); 19 (17 percent) worked at home full-time on family related activities. Almost all others (27 percent of respondents) worked part-time (21 outside the home part-time; 9 self-employed part-time). Sometimes overlapping with paid work, 13 worked part-time in volunteer work, and 13 worked at home part-time on family related activities. The majority (81 percent) did or had worked and/or volunteered in a library at some time.

The questionnaire asked about how people got to know each other in LEEP, the number of friends they felt they had made in LEEP, which media were used to maintain contact with them, and which media were best for receiving support from other LEEP students. More general social support was explored by having students rank the importance of different people both inside and outside the program for helping with their educational and professional goals. A final set of questions explored their expectations regarding the mid-semester on-campus session and how well these were met. The results from this questionnaire are used here to situate the interview results against the larger student experience.

Students' Experience of the Online Environment

Our first analysis of the interviews (Haythornthwaite et al., 2000) focused on whether LEEP was perceived by students as a community, and how students defined and maintained this virtual community through the "lean" media (Daft and Lengel, 1986) available for interaction. We did indeed find that students perceived LEEP to be a community, and belonging to it was highly important for their personal well-being.

Interviews also revealed how important it is to take into consideration the amount of time people have been in the program and the way this affects their experiences. It takes time for students to become at ease in this environment with its new technologies (new for almost all students), multiple media, and strange new ways of interacting with others. For some this start-up is especially stressful, combining doubts about being a student with doubts about the ability to work with the technology. Writing publicly through webboard postings combines the agony of self-exposure with the self-doubts of the returning student (Bregman and Haythornthwaite, 2001). However, it is not long (usually no longer than one semester) before students are old hands at online exchanges, carrying on conversations according to the norms of this environment, finding other LEEP students who can help put the program and their experiences into perspective, and providing each other with social support, companionship, major emotional support, and sociability.

These accounts of early stress and later benefit from online contact echo findings reported by Kraut, Kiesler et al. (2002) in their third survey of participants in the Homenet project. While their earlier studies showed loneliness and depression were associated with higher Internet use, the latest survey showed lower depression with higher Internet use, and no significant association with loneliness. As Kraut et al. suggest, and as we will show below, integration of Internet use with daily life, and development of synergies between online and offline life, provide more beneficial outcomes from such use.

Along the way to becoming fluent in the LEEP environment, students develop a strong sense of community with other students in the LEEP program. They find they belong to a "different world" that is only understood and shared by other LEEP students, and this gives them a way of partitioning and naming their experience. In building and perceiving this community, students report that they particularly benefit from and appreciate synchronous interaction, whether during

the "live" sessions or on-campus visits (one day per course per semester, with all days taking place within the same week). When off campus, students reinvent physical proximity as virtual proximity, appropriating technology and the opportunities afforded them by class and program structures to socialize and work with people they met on-campus, for example, by engaging in near-synchronous email exchanges. Those who fail to make such connections feel isolated and more stressed than those who are more active in communicating with others.

The initial boot camp, the immediacy of later synchronous sessions, and the on-campus face-to-face sessions help to keep connections current, so students feel they are there with people they know rather than with strangers,

Even though they would be just a name on the screen in the chat room or on the webboard, you still had the memory of knowing them from boot camp, which was such an intense experience. That gave you a connection. It was almost like they were there. You could imagine them. Since it was just recently, and you had them fresh in your mind, you knew exactly who was saying it and what it sounded like, if they had really said it, and what it would have sounded like. (Alice)

The immediacy of synchronous and on-campus sessions helps to overcome isolation and helps students know they are completing this program with others,

I seem to get more out of class when we meet live more often . . . It keeps you from feeling isolated . . . The immediacy [is nice], even though you're typing, not speaking to them directly, you're typing with them. (Janet)

While immediacy is important, students also find that they learn about each other from webboard postings, email, and interaction in class chat. While synchronous communication may be perceived as the best, continuous interaction via webboard postings has been described as "butter on toast, real thin but still tasty" (Jerry). The combination of media provides an integrated environment in which there is more than one way to get to know others.

In answer to questions about formation and maintenance of friendships in LEEP, questionnaire respondents ranked the on-campus sessions as the most important for maintaining their circle of LEEP

Table 15.1 Importance of each medium for maintaining a circle of LEEP friends

<i>Medium^a</i>	<i>Average rank^b</i>	<i>Number of respondents who provided a rating, this item</i>
On-campus sessions	6.0	86
Email	5.7	85
Live class sessions	5.4	84
Other ^c	4.9	12
Class webboards	4.4	83
Other LEEP webboards	3.1	82
Off-campus face-to-face	2.6	75
Telephone	2.1	77

^a Media are listed in order from most to least important according to the average of the ranks given by all the respondents. ^b 7 = "very important"; 1 = "not at all important." ^c "Other" includes IRC whispering, and group projects; note that only 12 respondents gave a ranking for this category (n = 113).

friends, followed by email, "live" class sessions, class webboards, other LEEP webboards, other face-to-face contact (for example, among those who live near each other), and the phone (see table 15.1).⁴ Although only offered by a few in the "other" category, whispering via IRC and group projects were ranked above class webboards for maintaining these friendships.

Along with the temporal adjustment to activity within LEEP, we also observed that, over time, LEEP work and its environment become less separate from everyday life, and students begin to recognize the overlaps and synergies with other areas of activity (Kazmer and Haythornthwaite, 2001). Janet explains how this is different from experience in other school programs,

More than being an educational program, it's more a life program. I think in order to be in LEEP [you] 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

4 Students were asked first if they had "found a circle of friends or people you talk to often from among other LEEP students? (answered yes/no)." If they had found friends, they were then asked how many there were in this close circle, how they first got to know these people, and then to rank the importance of each means of communication for maintaining this circle of friends.

lines are all very fuzzy. I didn't anticipate that . . . that the lines would be so fuzzy between work and school and home. (Janet)

Since many of the students are working in organizations appreciative of what they are learning, synergy arises early between work and school for many. Students may be given special opportunities or duties, and access to computers and knowledgeable co-workers. Work environments gain by having employees with special skills, and who are more knowledgeable about workplace practices. For others such synergy never occurred and some changed jobs to gain a better balance.

Involvement in Social Worlds

Involvement in any intensive program can be expected to affect other aspects of students' lives. Yet a program that takes too much from offline life may become unmanageable for students, and eventually lead to the failure of such endeavors. At present the LEEP program has a very high retention and completion rate (97 percent), and so we consider the reports from these students as indication of a manageable load, even if a difficult one and one that requires adjustments to offline commitments.

The first step in understanding the impact of the Internet experience on offline life is to identify students' commitments and obligations. In speaking of these commitments, we find it useful to discuss them in terms of the "social worlds" in which they operate (see Kazmer and Haythornthwaite, 2001). A social world consists of people who share activities, space, and technology, and who communicate with one another (Strauss, 1978). These emerge from the way individuals allocate their time and resources. Each world is coordinated around a primary activity, for example, learning, tending family, earning a living, and is usually associated with one site, such as the university, the home, the workplace. These multiple worlds are not isolated; individuals do not leave all obligations in one world behind as they move to another. Instead, social worlds interact and impinge on each other: we take work home from the office, manage school work while watching children, take family phone calls at the office, and read work-related email at home and on the road. We'll return to discussion of students' social worlds below, but first it is important to consider whether the Internet is a world of its own.

With the advent of the Internet and online communities, we find that social worlds are not confined to offline activity. While many speak of the Internet as if it were a social world of its own – and indeed many examinations of online community speak singularly of the online activity without reference to its place in individual's lives (including our own first analysis of LEEP) – the Internet's communication landscape includes many purposes, and intersection with many worlds. It includes email communications for work, social exchanges with family, searching for community information, buying products for the home, and playing games for personal entertainment alone or with known or unknown others. Treating the Internet as one social world and lumping together "time spent on the Internet" fails to acknowledge the way in which individuals make use of the Internet to serve multiple purposes in support of multiple social worlds. The distance students also did not immediately perceive overlap between their online and offline worlds, but, as explored below, it emerged over time as their newly acquired technical competence allowed them to help children with Internet searching, make and keep connections with travelling and distant friends and relatives, and bring their skills into the workplace.

We see the Internet not as a social world, but as a medium through which we have the opportunity to maintain our multiple social worlds. Recognizing the Internet as a medium rather than as a world comes with accepting the computer "as a medium through which individuals and groups can collaborate with others" (Bannon, 1989, p. 271), with having the technology fade to the background and the information and interpersonal landscape come to the foreground (Bruce and Hogan, 1998). Rene explains how this came about for her when she first began to communicate online after boot camp,

It was, I think, immediately disconcerting to be back, because as soon as you got back to where you were, meaning like home and work, it felt like boot camp was some other life you had miles and miles away. Then when you started up again it was very easy to fall back into the old rhythms of being with someone in person as you were online. It's like, "Oh, hi . . . How's your little boy. How is he doing." Because you know everything about the person, because you've talked to them. (Rene)

By "wading right in" to online communication, and "taking off as if [the others] were still right next to each other, talking," Rene found that:

That is really where the technology fades away. It is just the other person and some other medium of communicating with them. You don't even think about it when you're typing. It is like they are sitting right next to you and you are talking to them. (Rene)

While Rene, "waded right in" and accepted immediately that she was talking with others rather than with the computer, others take longer to come to see the possibility of continuing the boot camp conversation. For example, Nancy bonded with a set of students at the on-campus session, yet in the middle of her first semester she felt unsure about emailing them: "Everybody's working. Everybody . . . well . . . I just . . . I guess I just was not really sure that I . . . that I really should [email them]." At this time, she emphasized her preference for the face-to-face, traditional classroom, and spoke of the pervasiveness of computers and how we must all interact *with* computers,

I realize that computers are a part of our lives. No matter what I do . . . I'm going to interact with computers at some time or another. I mean . . . when I go to the grocery store a lot of you know . . . when I go to the ATM . . . you know we do a lot of things I mean with computers now. We are on line . . . electronic book stores, buying things. It's just a part of our lives. There's no way we can get around not using a computer. And at work on our jobs . . . just about everybody's job includes working on a computer now. I mean it's a fact of life. (Nancy, mid-first semester)

None of her rhetoric refers to reaching others via computer, just interacting with the computer. But by the beginning of her second semester she is able to talk of her experiences with more transparency about computers, focusing instead on chatting, and gathering in groups, even though all this is computer-mediated,

the online classes . . . we do, kind of chat, before our class, before [the instructor] starts the lecture. And then, you know, we get into small groups sometimes, or every week, we get into it because she'll have some questions, which she's made up beforehand. She wants us to get into these small groups to discuss them, and then we come back together. (Nancy, after the beginning of the second semester)

Experience, whether gained intensively by being thrown in the deep end of a distance learning program, or through longer, less frequent use of the Internet may be the key to reaching technological trans-

parency and transcendence of individual social worlds. Recent Internet surveys reveal different uses of the Internet by those with more years of experience online that support this view. *Netizens*, as Howard, Rainie, and Jones (2001) refer to them, spend more time online each day, are more likely to be online on any particular day, and engage in the most kinds of online activities (see also Nie and Erbring, 2000; UCLA CCP, 2000; and other chapters in this book). Their extra time online and extra activities suggest that if asked we would also find that they were spending more time online working with different social worlds.⁵

Social Worlds Obligations and Time with Others

To return to one of the key debates about Internet use and benefits we ask: how does time committed to the online endeavor affect students' time with others? We can examine the impact of time with others through students' obligations in their multiple social worlds. Interviewing the students showed that there are three *mandatory* worlds that need to be dealt with on a daily basis: the worlds of LEEP, work, and home. Obligations in these mandatory worlds cannot be shirked (although occasionally they can be deferred, see below). The *LEEP world* consists of instructors, administrators, support staff, and fellow students. Obligations include declaring courses, paying fees, attending classes, getting assignments done, working with other students, and sharing emotional support with other students. Their "world view" of LEEP is largely defined by their student-student relationships and thus this world mainly involves obligations and interactions with other students. The *work world* encompasses where students earn their living, their job, and the people with whom they work (supervisors, co-workers, and others in the same organization). Obligations involve getting the company or institution's work done. Some (but not

5 A caveat about this conclusion for general Internet behavior is one well articulated by Nie (2001). Current long-term users are also the early users of this technology and represent a group marked by higher socio-economic status and greater interpersonal connectivity. The connectivity of such people may be due to their personal characteristics as already well-connected people rather than to years of experience on the Internet, i.e., the next generation of new users may not show the same integration of the Internet into all aspects of their lives because their personal characteristics may not lead them to this type of use (see also Haythornthwaite and Wellman, this volume).

all) work environments allowed and indeed encouraged overlap with the LEEP world. Many supervisors and co-workers were supportive and often helpful in gaining entry to the program and being open to discussion in relation to school work. The *Home world* 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 parental involvement in school and extra-curricular activities. While spouses and significant others are highly important to the LEEP students' home worlds, it is children who take first place in their attention and prioritizing.

Along with the mandatory worlds are *optional* worlds with less pressing obligations. These include, in decreasing order of obligation, other family and close friends, remote family and old friends, and volunteer groups (for example, parent-teacher organizations, church, civic organizations). The professional library and information science world is another optional world. It becomes more significant over time as students increasingly identify with the profession and are identified by co-workers and other librarians as (soon to be) members of the profession.

In much of the examination of the Internet and its impact, concern has been expressed about the loss of time with local family. However, concern is not expressed about time with co-workers or time with members of an online community. However, these students tell us that all three of these represent mandatory worlds for these students, in which obligations must be met and cannot be shirked. Loss in *any* of these three areas can impact negatively on students' lives. Concern has also been expressed about the loss of engagement in volunteer activities (e.g., Putnam, 2000), and as an optional world such activities are vulnerable. While long-term effects may be felt by the community, a student prioritizing their time is not likely to suffer from dropping (temporarily) their volunteer work, and we do see students abandoning these activities early.

Juggling multiple worlds

In managing their multiple worlds, students effect a juggling act – a term a number of them offered to describe their life. Unlike on-campus students, who generally pursue the degree full-time, and pre-plan by leaving work, LEEP students drop very little. They take on the distance option precisely so they do not have to give up work. Most stu-

dents take two courses a semester and report that it takes them from 10 to 20 hours a week to keep up with readings, webboard postings (1–2 hours a day), being present in live sessions (typically 2 hours a week) and assignments. These hours are added to their already filled schedules of work, family, and friends. No wonder that they speak of “juggling,” “handling,” “deciding,” “rearranging,” and “accommodating” LEEP and their other obligations when describing how they manage their schedules!

Juggling requires constant attention, and students must be responsive to changes in each world in order for the next “throw” to be successful. Clarissa, for example, juggles her own activities to accommodate LEEP, but those rearrangements affect: her husband, who has to miss activities to do child care; her work, where she has had to take days to complete LEEP work; and her meeting schedules for other groups. Ted, like many others, is faced with juggling full-time work with family, including young children, and the LEEP program. He applies extra effort to build a schedule that enables him to stay involved with his family and still get some sleep. He has put off tasks, such as gardening, that can be done when he was less busy, and added tasks that support his LEEP work, such as implementing changes to technology at home (for example, adding a telephone line). He prioritizes his children’s activities as number one, even if that means missing a LEEP class, or taking a lower grade in a course,

When it’s one of the kids concerts, I’ll go and just try to make it up another time. Maybe my grades will suffer, but I felt those were more important. So I would just have to rearrange my time and maybe work late at night. 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. But when it comes to the kids’ activities, I want to be sure that I’m able to go . . . I’m really not concerned with my GPA that much. Maybe I’ll find out I should have been. Right now if I just get a B in the class I’m just overjoyed. (Ted)

Beth, in a similar situation, made the decision to take her schooling slowly, taking only one course a semester “because I have to do all the [children’s] sports and the academic [work] and maintain my family.” Holly, who also has children, chose the distance program deliberately “because my family is my number one priority . . . I didn’t want to be traveling.” She also prioritized by giving up her volunteer work: “Before I started LEEP I was real involved in [a 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.”

Managing multiple obligations

To deal with the simultaneous and competing demands of their multiple social worlds, students *prioritize* by deciding which of their worlds is more important, and then which tasks and relationships are most important within the world. They balance emotional needs (for example, with family and children) with task needs (such as school-work), and managing relationships with inhabitants of their worlds (children, spouses, bosses, co-workers, friends, and family) with accomplishing tasks in these worlds (doing paid work, making dinner, completing homework). They balance what must be done now with what can be done later in a cycle of *neglect and repair*. Within this prioritizing and juggling, students also manage multiple obligations by creating *isolation* or *insulation*, carving out time and space to deal with one and only one world for a time (see also Salaff, this volume).

First students prioritize and identify expendable tasks, things that can be dropped outright. As students prioritize they all show a consistent hierarchy of dispensing with activities. First to go are *solitary leisure activities* such as television, reading, needlework, gardening, as well as household cleaning chores:

You know what I've learned? I have learned that you know those little dust bunnies can sit there another day. They're not going anywhere.
(Nancy)

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. As Putnam (1995) points out, “harried souls do spend less time eating, sleeping, reading books, engaging in hobbies, and just doing nothing” (p. 6).⁶ As they get more harried, stu-

6 Putnam (1995) goes 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. However, we may also consider this as voluntary work, and perhaps fits the same niche in individuals' lives.

dents may begin to use live class time for other homework, work time for LEEP, and sleep time for anything else – prioritizing has given way to cramming. Last to go are *time with family, particularly children, and schoolwork itself*. But even these can give way: sometimes family has to “understand that [Mommy or Daddy] is doing work now and can’t be disturbed,” and as Ted noted, expectations for grades can be reduced. This order of dropping activities shows that concerns about loss of time with family are real, but that individuals strive to keep these relationships active. It also implies that harried schedules may be more responsible for loss of family time than time on the Internet.

In the next few sections we rotate through the worlds, examining sequentially the effects in each world of synergies, overlap, and/or collisions between worlds. Although these sections focus on one world at a time, in fact we cannot separate worlds so cleanly and instrumentally; they are intricately connected and should be considered that way.

Interleaving Internet activity and home

In their prioritizing and even with the final desperate cramming, students are choosing which responsibilities can be neglected and set aside for future repair. Relationships with spouses and partners, close and extended family, and friends most often require repair. Students repeatedly mention the need to “say no” to outings with spouses or friends,

I have had to say no a lot more to different activities, involvement in church, involvement in my kids’ school, socially. I feel like I have to say no a lot because I work and because I have a family, I have to look at my time and say oops, I’ve got a couple 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, married, school-age children)

Holly’s story, while an example of one way that many students prioritize, leaves out the number of students such as Ellen (married, no children) and Sue (married, older children at home) who say flat-out that they do *not* say “no” a lot. They tend to focus more on cramming, or losing sleep, than on saying “no” to activities and relationships around them.

Those who do muster the courage to say "no" depend on semester breaks and summers to nurture interpersonal relations neglected during academic semesters. Alice, for example, maintained close touch with her large family but found involvement in LEEP reduced her visits with friends from once a month to once every two 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).

In keeping with the mandatory and optional worlds, students spend more time managing close personal relationships than those with friends and other relatives. While most have tolerant family members who can wait for future repair, there are also some who report difficulties with the reallocation of priorities. Spouses may have to take on extra duties, and children have to honor the student's work times. It is in these relationships that the involvement in an intense program can have a negative impact on immediate social relationships. Although many cope and accommodate to manage these relationships, live sessions, homework deadlines, and on-campus visits do take time away from these close personal ties. Whether long-term benefits and repair of time together repays the immediate effort is beyond the scope of the data on hand. However, it is important to note that involvement in this program is time limited and thus may differ from involvement in continuous online communities that may not include the breaks that allow for relationship repair.

The cycle of neglect and repair – with loss of time spent together now with promise and/or actual delivery of time together later – suggests that to understand the impact of time spent with others requires an understanding and recognition of this cycle of relationship maintenance. This also suggests that new users of the Internet, such as these students in their first semester of the program, may be seen to neglect and ignore others because no stage of repair has yet been enacted. Once the use of the Internet finds its balance with home life, then feelings of ignoring others or being ignored by others may diminish when viewed from a longer perspective. While the UCLA CCP study tells us that 8 percent of Internet users *do* feel they are ignoring other household members, and 25 percent *do* feel ignored by household members spending too much time online, it would be useful to know further how this plays out with the number of years of use of the Inter-

net to see if more perceptions of neglect are prevalent in new user households.⁷

Another impact is that while the student may be at home, they are not available to others. Even though physically in one world (home), they are mentally in another (LEEP). Students try to carve out time and physical space within the home where they can concentrate on LEEP work. They have mixed success in this. Those who have the greatest success have spouses, partners, and so on, who give them space, both physical and mental, in which to get their work done. Giving space (and time) is a form of social support received from others within the home. Some students gain time and space as spouses take up family and household duties, others enjoy a more intangible support, for example,

Other people who help me? My boyfriend definitely does because he doesn't come over when I have a class and he doesn't talk to me if he is here and I have a class . . . if he is here, he'll be in a different room if I'm studying or something like that. So he definitely helps. (Alice)

Those who have less success find they cannot clearly delimit their time and space for LEEP. Even in accommodating households, claiming a room and a computer is not always easy, and often students juggle their office space and their time on the computer. 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.

Even when physical space can be claimed, family members, especially children, often have difficulties accepting these boundaries between worlds as barriers to interaction. Young children don't understand that "If Mommy has the door to her office closed you're not supposed to be bothering her" (Barbara). Clarissa does different kinds of work in her room, some of which is interruptible and some of which is not, and family members can't tell the difference. Though she has talked about and tried several different techniques for reducing interruptions, after one year of distance education, she was still wrestling with creating a private space for herself and her school work. Even when they have claimed space, students still split their attention

7 Note also that the Kraut et al. (1998) studies did focus on new user households and found greater neglect of interpersonal relations.

between the LEEP and Home worlds. Local conditions in the Home world can reach levels that put their priority above that of LEEP activities, for example,

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, the youngest ones particularly, they fight like cats and dogs. You have to stop and quell that. (Ted)

To further carve out time and space, more experienced students 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 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. They learn to interleave and wedge LEEP into times of the day when other worlds are not pressing for attention.

Juggling worlds, maintaining relationships and managing priorities "on-the-fly" are intrinsic parts of multiple world management. We should not see on-the-fly prioritizing as a failure, but rather as the reason for success. As Mark Levine (1998) remarks, reflecting on the skills of juggler Enrico Rastelli:

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. (Levine, 1998, 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 are important for balancing worlds. While we believe 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 managers, creating the kind of withdrawing from "real world" activity observed in other studies.

Synergies between Internet activity and work

While we have concentrated so far on the impact on the home world, obligations in the work world also cannot be ignored. As noted above, many are working in fields related to the nature of the degree, and find both cooperation and appreciation of their work from supervisors and fellow workers. For them the content of their education fits seamlessly with their work environment, and that environment even provides input to their education with help from knowledgeable co-workers. 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 so that "being involved with the program . . . made something happen that wouldn't have otherwise happened" (Barbara).

Workplaces benefit from students' LEEP involvement and support them in many ways. Often students are given time and access to computers at work for LEEP, allowing them to build a LEEP space within the work world. Even those with offices at home sometimes bring LEEP into work and try to juggle the two worlds simultaneously,

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. (Jerry)

Students also bring their work experiences to class, providing a two-way synergy in learning between work and LEEP.

Even with synergy and opportunities, work is still being juggled with responsibilities for LEEP, and the work world may also be treated to a cycle of neglect and repair. For example, Barbara takes a little from work with expectation of repayment in the future,

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. (Barbara)

Where the two worlds are ultimately synergistic, as they are for Barbara, the short-term deficit is easily repaid in the long run. Such is not always the case. Sue, for example, found her work environment

unreconcilable with the demands of the education program. She found no alternative but to change work worlds in order to accommodate her LEEP world and her personal goals,

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. (Sue)

Near-term demands of this job were unable to accommodate the "neglect and repair" strategy for managing multiple worlds.

Impacts on the online learning environment

Home and work demands can at times overwhelm involvement in LEEP, subjecting LEEP to the cycle of neglect and repair. 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. (Doris)

While this sort of neglect and repair is another example of managing multiple world obligations, neglecting to join the online world has far more negative consequences on students. Those who fail to make connections, particularly those who do not make connections in their first semester, show much greater distress about their LEEP involvement. Here is one student's account of how she felt at the beginning of their first semester:

I'll have to tell you that it has been one of the most stressful times in my whole life . . . I've had quite a lot of difficulty adjusting to the isolation of being in a non-traditional classroom . . . not being able to talk face to face with the other students . . . I started to have a lot of anxiety . . . just wondering if what I was posting sounded okay or if it sounded so bad . . . Finally I just had to take time off work. (Nancy)

Although the stress experienced by this student represents an extreme case, others also had trouble adjusting to the conditions of a “persistent conversation” (Erickson, 1999) environment, that is, of recorded, visible and enduring texts. While students approach a learning environment bringing with them expectations in line with the traditional classroom, such as how to participate in class, communicate with an instructor, or carry on a discussion with fellow students, they find that what would previously have been an ephemeral conversation is now recorded and preserved for review; previously private exchanges of homework between instructor and student now become public bulletin board documents. Every opinion, however well expressed, every joke and typographical error, leaves a written legacy of an individual’s persona and style. They are suddenly exposed in a persistent, public form as never before (see also Bregman and Haythornthwaite, 2003).

It should not be surprising that many feel exposed, and unsure how to communicate. Nancy’s feelings of uncertainty are present in others’ reports also, particularly in relation to webboard postings. For example,

At the beginning it was difficult for me because I felt like when I posted something it had to be perfect. All the time all these other people are just talking away . . . I found that difficult to get used to because I felt like I had to be perfect. (Ted)

When you pretty much communicate with other people through writing I think holy cow these people are so smart. I’ll look dumb if I ask them this question. (Alice)

Many students remark that they are not comfortable in LEEP until they get their first grade. Students do not know whether they are doing the right thing until the external confirmation of a grade arrives. Nancy (quoted above) finally telephoned the instructor to find out how she was doing. Making this connection to the faculty member, and other connections with LEEP students, including a strong personal tie that provided her with social support, greatly increased her comfort level in the program.

Social support from within LEEP is extremely important for students to be able to manage their LEEP experience. Many report how meeting students at the first on-campus session after they began the program (approximately two months after their time together in “boot camp,” and six weeks into the semester) allowed them to compare

notes and find out that their experiences were normal, and par for the course, for example,

I felt it was individual for me at times, when I thought certain assignments were difficult, but then you talk to other students and they're having the same challenges, same difficulties. (Beth)

Many find their support in close ties formed at boot camp. Of the 113 questionnaire respondents, 81 said they had found a circle of LEEP friends; 74 of those 81 (91 percent) first got to know these people at boot camp. These circles of friends ranged from 1 to 15 others, with mean of 4.5 and median of 4 others in the circle (only 11 claim a circle of over 6 others). These sets of friends find ways to keep together over their time in the program: they try to take the same courses together, stay on campus in the same place, and even visit at each others' homes. Others maintain friendships and gain support through a close friend they "talk" to through email, often finding each other online late at night when assignments are due.

In particular, and perhaps to the chagrin of instructors who are aware of it, students make use of the "whisper" facility of IRC to catch up socially, make jokes, pass information, and concurrently help to explain the content of the lecture. This facility makes it easy for students to ask "dumb questions" of their friends that they do not need to post publicly. It provides another way in which students can become comfortable with their virtual classmates.

However, all the mediated conversations require making the effort to talk and require students to join the LEEP world and stay part of it. When this is accomplished LEEP offers:

A support system. An emotional support system, an intellectual support system, people you could ask questions, get information from. (Holly)

The online world itself becomes a place where general social support can be gained. Students help each other not just with work, but also with coping with the program, its load in their lives, and events in their offline lives. But it also is a world that students feel requires more effort to belong to than an offline world. "Sometimes it's easier to say 'no' to an online community because it's not right there in front of your face all the time" (Holly). And, as Doris describes it,

You have to make more of a point to reinforce things because you're not going to bump into people, you have to make a point of nurturing

friendships more so than you do in a neighborhood community or church community or work community where you just bump into people . . . Maybe you do have to work at it more, because it's easier to drop out of it, too . . . you can just kind of fade back if you want and just say, well I'm just going to sit here and do it more like a correspondence course. (Doris)

Much has been made of the lack of personal well-being that can come from the absence of close, local contacts. The LEEP experience also shows that well-being can be compromised by a lack of online contacts. Students will feel alone when online if they have not gone beyond communication with the computer and reached instead communication with others *through* the computer. As students make contacts and form relationships with other LEEP students, and with faculty and staff, they move from a stressful position of isolation to confident membership in the online world. In keeping with results of research on social support in other settings, the more others with whom individuals maintain supportive ties, the more positive the association with happiness, mental health, and well-being (Haines and Hurlbert, 1992; Hammer, 1981; van der Poel, 1993; Walker, Wasserman, and Wellman, 1994; Wellman and Gulia, 1999).

As students gain friendships online, none speak of losing their offline friendships. Instead they seem to have welcomed more people into their social circle, adding a set of virtual, and soon to be professional, friends to their network.⁸ This computer-supported social network is already serving people well in the search for new jobs, and in wider searches for difficult to find information. We do not know yet how these friendships and this network will endure past graduation, but given students' ongoing association with the profession, the opportunities to meet at professional conferences, and the enduring online connectivity they will be able to maintain, one can expect these to be as durable as any offline friendships and perhaps more so.

8 We note again that these more highly educated users, and early adopters of Internet based distance education may again – as Nie (2001) points out – be more able to add connections because they are better connectors. While this ability may still hold true for later adopters of this program, who will still be more highly educated as they enter this graduate program, this may not hold true for all forms on online education.

Disconnection, connection, and optional worlds

We have already noted where lines between LEEP and work provide opportunities for mutual exchange of resources, information, and know-how. Similarly, the worlds of home, and extended family and friends can also co-exist beneficially with LEEP. These worlds often provide the emotionally supportive interpersonal contact that students say helps keep them going in LEEP.

When asked to rank the importance of people within and outside the program for helping with their educational and professional goals, spouses and partners score well ahead of others (see table 15.2). These are followed by: LEEP class mates; people at work; professors or instructors for classes; personal friends; parents, children or other family members; LEEP technical support personnel; GSLIS and LEEP administrators; LEEP students not in their class(es); members of voluntary organizations (religious groups, social groups, and so on); and non-family household members (e.g., room mates). Listed in the "other category" which ranked between LEEP class mates and people at work, 12 volunteered as significant supporters a variety of people including faculty advisors, non-LEEP professors and technical support, and library personnel (see table 15.2).

Home, work, 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 re-establish and strengthen ties with far-away family and friends, and to introduce technologies into their volunteer organizations. 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, boding well for future payback to volunteer worlds.

Thus, we see increased social contact associated with learning and using online technologies; however, we note that that this effect is not seen until students have gained experience and confidence with the technologies. Along with this confidence comes a recognition of the generalizability of the technology they are using, and the fact that it

Table 15.2 Importance of support providers in students' achieving library and information science educational and professional goals

<i>Support provider^a</i>	<i>Average rank^b</i>	<i>Number of respondents who provided a rating, this provider</i>
Spouse/partner	1.6	93
LEEP class mates	2.8	101
Other ^c	3.3	12
People at work (outside the home)	4.1	87
Professors or instructors for class(es)	4.4	99
Personal friends	4.6	82
Parents, children or other family members	4.6	79
LEEP technical support personnel	4.8	90
GSLIS and LEEP administrators	5.3	86
LEEP students not in your class(es)	5.6	61
Members of voluntary organizations	6.8	35
Non-family household members (e.g., room mates)	8.3	21

^a Providers are listed in order from most to least important according to the average of the ranks given by all the respondents. ^b 1 = "most important"; 12 = "least important." ^c "Other" included faculty advisor, professors from other programs, library directors and administrators, non-LEEP technical personnel, pets, religious figures, and themselves; note that only 12 respondents gave a ranking for this category (n = 113).

can be used for other worlds. Instead of seeing it as a means of communicating with boot camp friends and classmates, they become aware that it can connect them to others – the friend in Europe, the parents a few states away, as well as the larger network of LEEP members and graduates.

Discussion

Bringing the Internet home as part of an intense online educational program can, like any other major challenge we take into our lives, affect our time with others. While much emphasis has been placed on the Internet's impact on time spent with those at home, the LEEP experience shows that for the individuals involved, there are three mandatory worlds to be accommodated: LEEP, home, and work. While concern has been expressed for the impact on face-to-face local contact,

we suggest that for success and well-being while participating in an online program, concern must be turned as well to the friendships and support available from members of the online world. Like any other world, it requires community development in order to be a rewarding place to spend time.

Time online does indeed affect time with those nearby. As students merge participation in an online world with the mandatory worlds of home and work they prioritize and schedule involvement with others. Students ration and apportion time with spouses and partners, and make adjustments to work schedules and loads, decrease time spent with family and friends, and drop volunteer work. However, as students gain more experience in the online world, its capabilities and uses leak out into other worlds in various ways. New technology skills transfer to work and home. Synergy develops with people at work, and in the library and information science profession; extended and remote family and friends gain technology support, and email as a communication channel; and volunteer groups reap the benefits of LEEP students' new technical skills and confidence.

Concern that involvement in the online environment will erode friendships seems unfounded with these students. While they may delay and space out face-to-face contact with friends, none report abandoning or losing friendships. Instead, they talk at length about the new friends they have made through the program and the social support they gain from them, ranking them second after spouses and partners in providing support towards their educational and professional goals. Although we do not yet know how enduring these friendships will be once everyone has moved on from LEEP, their common profession and their already established ability to maintain these relationships at a distance suggest they may endure.

Support is found for concerns about individual isolation online and isolation is evident among these students particularly when new to the intense, foreign, and non-physical online world. It takes time to learn communication norms, and it takes more effort to stay in touch and be present with others than in a face-to-face environment. Some find it difficult to overcome their own reticence to contact instructors and other students, and to overcome anxieties about presenting themselves online. Isolation can be overcome by more continued online contact, particularly synchronously, and by becoming aware of themselves as members of a community rather than as isolated individuals communicating with the computer. With experience, the technology and the overhead of communication protocols fade to the background,

allowing personal online relationships to move to the foreground, and diminishing feelings of isolation.

We also see that students' ability to cope with this intense online undertaking can depend heavily on the support and cooperation of offline friends and family. As home and work worlds dovetail with LEEP, cooperation from those worlds is as essential for successful completion of the program as is the support from those within the program on how to manage its daily routine. These worlds all co-mingle in the daily responsibilities, obligations, and management of demands achieved by the individual student.

Is there benefit to all this work, to the extra effort needed to get to know online norms, to make and keep connections with others, and to juggle their and others' responsibilities in their multiple worlds? And, indeed, in their first semester, many students may be asking themselves this very question. Our interviews do suggest a number of benefits from taking this education in this way. First, this distance option allows many to fulfill what has been a long-term desire to acquire this degree, one they could not have fulfilled if required to move to the university campus. Students place-bound by jobs, spouses' jobs, and children now have the option of obtaining the degree. Second, the technological proficiency, ease of use, and recognition of opportunities that arise with increased experience in the program provide a variety of benefits. Many receive immediate respect from supervisors, colleagues at work, LIS professionals, and family for taking on this endeavor; they are chosen for opportunities at work as a result of their online involvement; and they become able to take the knowledge they have acquired to work, home, and volunteer organizations. For better or worse they have become part of the new digital revolution rather than watchers from the sidelines, and even those with existing technical and computing skills gain in the continued exposure to working and learning with others online.

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