Instructional Space for the New iSchool Building Planning Document

INF 387C

Group 4
Liza Banks
Laura Evans
Emily Hersh
Allison King
Susan Megison

Table of Contents

Executive Summary

With the goal of designing what will be considered the premier educational space among the nation's top Information Studies programs, the members of Group 4 collaborated to investigate the creation of a new instructional space for Universtiy of Texas's School of Information (iSchool). We began by analyzing the current instructional space of the iSchool and creating five user profiles of hypothetical instructional space users from which we created the results of fictional surveys of students, faculty, and staff to gauge their needs and interests for classroom and lab spaces. In addition, we researched innovative instructional space ideas from other universities as well as current data on the best lighting, color, and furniture to optimize learning.

This work all led to the creation of a vision statement and four conclusions regarding the new instructional space: 1. We will need multipurpose spaces, with integrated technological components, that will be adaptable into the future; 2. The design should support collaborative learning among students and aid professors in their role as instructors; 3. There should be informal learning spaces to develop a sense of community; and 4. There should be elements of the design based on the unique UT-Austin community and adaptable to individual professorial styles. We then used the vision statement and conclusions to create the goals, objectives, tactical strategies, and budget for the project as well as a plan for evaluating the project's success.

In addition, to help promote the visibility of the iSchool on campus and to support the University's goals of undergraduate instruction, Group 4 proposed the creation of an Undergraduate Research Help Center (RHC), which would be created as a collaboration between the iSchool, the Office of Undergraduate Studies, and the UT Library System. Housed in Perry-Castañeda Library, the RHC would be staffed by two co-directors and twenty consultants, all iSchool graduate students. The consultants would meet one-one-one with undergraduate students for hour long sessions to help them with their research assignments and teach them about the research process. Our group created a grant proposal to fund the pilot year of the RHC project.

Background Information

Ranked in the Top 10 Library and Information Schools nationally and #1 in Archives and Preservation, the University of Texas at Austin School of Information provides first-rate research and education opportunities to prepare 21st century information professionals. Offering a PhD program designed for information researchers, scholars and advanced information managers, a Master of Science program in Information Studies preparing students for a range of information professions, from archival enterprise and information architecture to librarianship and museum work, as well as advanced certificate programs, the iSchool recognizes the contributions of each specialty and encourages interdisciplinary cooperation. Yet, the current physical location of the iSchool distances students and faculty in the Conservation and Preservation programs from the rest of the school, due to the existence of two separate buildings. Further, both structures pose logistic and technological challenges and limit the school's capabilities to expand.

We intend to design the new facility at 1616 Guadalupe to establish and maintain greater collaboration between all units of the iSchool. In addition to narrowing the geographic distance between departmental specialties, instructional space in the new building will be shaped to improve access to learning and promote communication. The construction and equipment for classrooms and lab space will reflect a commitment to active participation and technological advancement. Extending beyond the confines of its new physical space, the Research Help Center will ensure a crucial partnership between the iSchool and wider campus community, highlighting a shared focus on academic excellence.

Specific Team Member Roles and Responsibilities

Allison King was elected Team Leader of Group 4. As such, she made a Gantt chart for the project timeline which was sent to the rest of the group so that everyone would know when different components of each part of the whole project were due. She updated this Gantt chart throughout the semester to keep everyone informed of any changes as they happened.

For Case Study 2, everyone in the group participated in the group chat that was held on Sunday October 7 at 8pm. Laura set up the chat room on BlackBoard and Allison made sure that

the chat transcript was recorded. After an amazing two-hour conversation about Case Study 2, Liza wrote up our Vision statement and Emily wrote up the rest of Case Study 2, both based on the transcript of our conversation. Everyone took part in the editing and refining process and Liza submitted it.

In a group meeting, we collectively came up with the goals for the Strategic Plan of the iSchool Instructional Space. Everyone, except for Emily, came up with at least 3 objectives for each goal and the tactical strategies for how to achieve these objectives. We chose this method because, while we assumed there would be some overlap, we felt that each person would bring a different perspective to the project, and coming up with the objectives and tactics separately avoids one voice overpowering the others. Emily then took the ideas and combined them into one cohesive Goals, Objectives, and Tactics section.

Our first course of action for the needs assessment part of the Strategic Plan was to identify the needs of the iSchool population when it comes to instructional spaces. Since we were working in the hypothetical, we decided that each person would come up with a User Profile. Each of the five personae represents an archetypical user of the new instructional space. This exercise gave us a better idea of for whom we were designing the space and what sort of special requirements they may have.

As the user personae were being created, we split into sub-teams, to cover different areas of the needs assessment. Emily found out what amount of space is currently being used in the iSchool and what the future projections are, including talking to professors and even taking a tour of the Kilgarlin Center. Liza and Susan researched current trends in education and considered how other departments at the University of Texas as well as Schools of Information in other universities are set up. Allison and Laura developed a list of student and professor needs, based on the personae, and wrote them up as results of a hypothetical survey sent out to the iSchool community.

Liza took the three pieces of the Strategic Plan (the goals and objectives, needs assessment, and user profiles) and put them together. Once again, the entire team took part in the revision process. When everyone was satisfied with the paper, Liza submitted it.

The group then redivided into two sub-groups, Team Budget and Team Grant. By splitting up the tasks among our team members, the burden of the full load of work was distributed amongst all of us. Furthermore, this strategy allowed each person to reflect on the

other team's part of the planning document with a fresh perspective during the revision stage, allowing them to catch errors that were not noticed by the sub-team involved with that section of the project.

Team Budget was composed of Allison, Laura, and Liza. At the Team Budget meeting, they worked on the creating basic outlines for the different budget types. They decided that the line item budget would work best for this project and would need to be created in order to flesh out the Program Budget. Liza came up with items and categories and gave them to Laura who created the first round of pricing. Based on this, Allison created the line item budget, added or rearranged the items to fit the Goals and Objectives of the group, priced out some of the big-ticket technological items, and made sure that everything balanced to $2 million. Laura wrote up the budget narrative. Everyone in Team Budget took time to edit the line item budget and description. From the categories in the line item budget, Allison finalized the program budget and Laura finalized the zero-based budget. Allison submitted all of the budget items.

Team Grant was composed of Emily and Susan. Together, they came up with the idea for the grant, which they ran past the rest of the group. Once the idea was accepted, Emily visited the Hogg Foundation library to learn about funding opportunities and wrote the Project Description and Conclusion for the grant application. Susan researched information about the need for better research instruction for undergraduates and wrote the Statement of Need and Organization Information. Together, they worked on the Executive Summary and the Budget (with help and advice from Team Budget).

A few weeks before the end of the semester, Allison sent out a color-coded list to the group of what needed to be done in order to complete the full planning document. Everyone responded with the tasks they would fulfill. Allison's tasks were to make sure the Gantt chart was as accurate as possible and write this section. Susan wrote the Background Information section. Laura edited the Goals, Objectives, and Tactics, and wrote the Plan for Evaluation. Liza edited the Needs Assessment and Vision, based on feedback from the professor, and updated the References. Everything was compiled by Allison and then given to Emily, who wrote the Executive Summary. Once that was completed, everyone once again participated in the editing process of the entire document and when we were all satisfied with it, it was turned in by Allison.

Needs Assessment and Environmental Scan

Introduction

Our team's strategic plan for the new iSchool instructional space involved two main concurrent strands: an analysis of our space now, and decisions about what the space can and should be in the future. We created user profiles (see attached) to facilitate our creative thinking about the professors and students in all disciplines of the iSchool and evaluated the current space from their points of view. Following this, we conducted a needs assessment. This assessment was designed to provide us with an overview of what students and faculty think of the current instructional space at the iSchool, and to solicit opinions on how that space could be improved. We sought both criticism and praise of the current space, as well as suggestions, visions, and ideals that could be applied to the design of our new space. The needs assessment consisted primarily of surveys responses from faculty, instructional technology staff, and current and former students.

Simultaneous to this study, other group members conducted an environmental scan. They researched the current trends in educational (especially Library and Information Science programs) design and theory to gain an understanding of what kind of space best facilitates learning. We sought both theoretical and practical design ideas for a new space that would promote learning above all else.

We began the development of our vision for the future with a broad vision statement, which we then refined into more specific goals. These goals focused our research and analysis, and the intersection between these two trajectories guided us in creating measurable objectives and tactical strategies. We began with what there is, and proceeded to what there could be; the final step was to delineate the practical strategies necessary to take us from one point to the other. We now have a road map for the design and implementation of our vision of a new iSchool instructional space.

Where We Are: Needs Assessment

Analysis of current status of iSchool instructional space

The Sanchez building

The majority of iSchool classes are currently taught in the Sanchez building. The iSchool teaches approximately 50 classes per semester, both undergraduate and graduate, that require classroom space. There were 55 in Spring '07, 46 in Fall '07, and 53 in Spring '08. Classes are usually taught in three-hour blocks, with the most popular times being 9 a.m.- noon, noon – 3 p.m., 1 – 4 p.m., or 6 - 9 p.m., although there are a number of additional variations. Some of the undergraduate classes meet twice a week for 1 ½ hours each. During the most popular time slots, there are likely to be three or four classes held at the same time; sometimes as many as five are taught concurrently.

Classes are currently held in four rooms in Sanchez (commonly abbreviated SZB). SZB room 468 (approx. 875 sq ft) holds up to 50 students. SZB 464 (approx. 500 sq ft) and 546 (approx. 375 sq ft) each hold up to 25 students. SZB 556 (approx. 875 sq ft) holds up to 20 students but is usually used for doctoral seminars that usually have no more than 5 students and never more than 10. (All square footage estimates are approximations.) With the exception of the core requirements, classes are generally kept between 20-25 students, although we know from personal experience that they are often much smaller than that. Our team members have been in classes with only 6 students each.

The Sanchez building is also home to the IT lab, the common area for both group and individual work for students throughout the iSchool. The IT Lab and its accompanying storage space are approximately 1350 square feet. The lab is currently divided up into 4 rooms: a main room, a smaller room that can be used to teach classes, a very tiny room for advanced multimedia or voiceover work, and a small equipment storage room. Currently, the Lab maintains 17 Dell PCs with Windows XP, 1 Dell PC running Fedora, and 5 Apple G5s with OS X, with 11 additional Dell PCs and 12 Apple G5s in the Lab Annex. Each computer station is supplied with headphones and CD/DVD burning drives. In addition, they may be connected to scanners, audio-visual conversion stations, digital cameras, and other hardware in the Lab. Two

more Macs and PCs, both equipped with podcasting microphones for recording sound in media projects, are available in the Scannex, a small room located near the computer resource books.

The Kilgarlin Center

In the Kilgarlin Center, home to the Conservation and Preservation programs, there are a Book Lab (approx. 320 sq ft) and a Paper Lab (approx. 240 sq ft), as well as a Dirty Room, a Photo Doc Room, and a Supply Room (each approximately 42 sq ft). Classes typically have less than 10 students; in fact, they have their first class ever with 10 students in the Fall '07 semester. They also have a classroom, a meeting/lunch room, and a computer lab/book room, all due to their current distance from the main iSchool building. They are happy to share those facilities with the general student population when the two buildings are consolidated. Professor Ellen Cunningham-Kruppa told our team that the current lab sizes are adequate; they don't need much more space for those. They could, on the other hand, use more space for the Photo Doc Room and the Storage/Supply Room. The size of the Dirty Room is fine, but it *cannot* be connected to the Paper Lab because of dust. It can be connected to the Book Lab, but doesn't have to be. Ellen also loves the idea of windows, both to the outside, as long as there are shades, and to the inside, so that others can see the conservation students' work. In the new facility, all of these areas should be password- or passcode-protected.

The Paper Lab has large tables that two or three students share. The Book Lab's tables are somewhat smaller and are shared by two students. Along the walls, they have counter space with microscopes and other supplies; the counters have drawers underneath and shelves above. Each student has his/her own taboret, a small rolling storage cabinet in which they keep tools and supplies. Each lab has a shallow sink, approximately 3x5 ft, which uses specially filtered water.

The fume hoods for collecting the chemical fumes are also important. One fume hood area, located in the Paper Lab, is connected to metal tubes that run across the ceiling and come down at each workstation. The tubes are like vacuums: students can place them right next to the chemicals used at the work stations, and the fumes are sucked up through them into the fume hood. The fume hood looks like a big hood that would go over your stove. A small 2x3 ft table for using chemicals is located underneath the hood, and the whole apparatus is positioned against a wall. Electrical plugs are important, too. Right now, over the lab tables there are retractable extension cords that they can pull down from the ceiling. The last important element of the labs

is the huge, heavy, cast iron pieces of equipment, paper slicers and the like, three or four various pieces total. Professor Cunningham-Kruppa has already spoken to the architects about the possible floor load issues this equipment may cause on the fifth floor, and presumably they are addressing them in the architectural plans.

Flawn Academic Center

Some classes, mostly undergraduate, are held in the Flawn Academic Center, or FAC. The three sections of Children's Literature are all held in FAC 21, a large auditorium. Two of the sections are capped at 275 students, and the third is capped at 180. Shirley Lukenbill, who teaches one of the 275 student sections of Children's Lit, told the team she hopes the classes will be kept in FAC, which is more central for undergraduate students. Two additional small classrooms in FAC are used for a few other, mostly undergraduate iSchool classes.

Other instructional space

Besides the three official iSchool spaces, classes that iSchoolers may take for iSchool credit (i.e., they are either offered by the iSchool or cross-listed at the iSchool) are taught in a sprinkling of other locations, including HRC, PCL, UTC, EPS, CMA, NOA, JON, RLM, PAR and GAR. The number of classes in these other locations is small: eight in Spring '07, two in Fall '07, and six in Spring '08. We assume that the classes are taught in HRC and PCL because of the need to use materials or equipment at these locations; and if so, we can assume those classes would continue to be taught in those places. Some of the uses of the other locations are a result of space concerns at the iSchool and may be consolidated into the new building.

Results of hypothetical user surveys about current iSchool instructional space

Surveys were (hypothetically) sent out to the students, faculty, and staff of the iSchool, to find out the interests and needs of the population, in terms of Instructional Spaces. We had a 70% response rate from students, a 55% response rate from faculty, and a 42% response rate from staff.

Classrooms

Our team sought to develop an overview of what students and faculty think of the current classroom space at the iSchool, its strengths and weaknesses, and to solicit opinions on how that space could be improved. Naturally, we received results that covered a wide range of opinions, reflecting the diversity of interests and teaching and learning styles within the iSchool. There were certain ideas and themes represented frequently, however, which we will discuss here. First, both students and faculty expressed a desire for classrooms that facilitate hands-on learning, so that students can gain practical experience, especially in areas such as digitization. This coincided with the desire for classrooms to be equipped with computers for the students' use, as well as any special equipment necessary to support the specific subject being taught. Furthermore, students were nearly unanimous in crying out for more power outlets, to allow every student to plug in their laptop in class.

Flexibility also emerged as an important theme. Many instructors specified that they would like a large classroom for a popular class, or conversely, a small classroom for a more specialized class. Students also wished for either more space, such as in the conservation classes, or more intimate settings. At least one suggested outright that the classrooms be adjustable in size, so that they can accommodate large or small groups as needed. Movable furniture fits into this theme, as well. Many students prefer tables in the classrooms that allow them to spread out and rearrange themselves into groups easily; linear seating was not favored by anyone.

Storage space in instructional areas was also requested frequently. Faculty would like their students to be able to store materials for in-class projects in the classrooms, as well as their own materials. Security would be very important if we were to incorporate this idea. Some faculty who expressed a desire for storage space mentioned that they would like their book collections to be available to students; many students envisioned a reading room within the instructional space.

Labs (IT and Conservation)

Based on the results of the survey, most of the respondents felt that the IT Lab was important to the iSchool. Many of the students said that they use the IT Lab for individual and group projects. Faculty are pleased that students can use this space to work on technological assignments outside of class. They like that there are both Macs and PCs, as well a variety of

digitization technology available for different projects. All groups surveyed said that they appreciated the help and knowledge of the IT Lab Staff (otherwise known as Purpleshirts). They are glad that the Purpleshirts are in the Lab in order to help with assignments and to teach short courses, and they appreciated having a classroom in the Lab for this purpose.

However, students wished that the IT Lab was better equipped to deal with group work. Some students complained that it was hard to gather around a computer or find a small area where they wouldn't feel that they were disturbing other people. One student even suggested having a number of smaller rooms with a computer and full set of digitization equipment, in addition to the regular lab space for small groups or an individual to work in private. As expected, there were complaints about the printing system, although students were happy that there is both a color and a black and white printer. 20% of responses from students and professors said that they wished there was a poster printer in the Lab, for printing Capstone or conference posters.

We also asked faculty and students from the Preservation and Conservation program how they felt about their current lab spaces. While the professors felt that there was adequate room in both the Book and Paper labs, 80% of the students wished that they could have a little more space, saying that if the program grew any larger than it already is, it would be crowded and difficult to work in the space.

Needs Assessment Based on the Results of Our Environmental Scan

Innovative design ideas from other universities

Recent studies suggest that the classroom environment is a crucial element in supporting and encouraging learning in higher education. Yet, the traditional design of learning environments, often the result of lining up vacant rooms and filling them with sturdy tablet desks, shows little cooperation between learning theories and architects to experiment with creative, education-based design concepts.

Considering that iSchool students will spend a considerable amount of time in the instructional spaces of the newly constructed building, it is worthwhile to consider recent trends that accommodate both comfort and learning in classrooms and lab settings. In fact, Dittoe emphasizes that function, flexibility, and aesthetics are essential in designing environments

conducive to learning. Further, Brown and Long highlight a trend toward human-centered design, in which "learning spaces in the 21st century need to foster discovery, innovation, and scholarship, not simply contain them" ("Trends in Learning Space Design," 9.5). This report will illustrate how building design and educational goals may be interwoven to create functional yet innovative instructional spaces that facilitate teaching and learning, based on examples from university classrooms.

The University of Dayton, North Carolina State University, Rensselaer Polytechnic Institute, and Stanford University continue to experiment with the concept of a "studio classroom," rooted in flexibility, comfort, sensory stimulation, technology support, and decentralization. With moveable tables and chairs, learners are encouraged to move from listening to a single speaker, as in a traditional lecture, to working in groups for project-based activities, to working independently in reading, writing, or accessing electronic resources. Comfortable seating and adequate surface space for laptops allow students to actively engage in learning; they may also benefit from sensory stimulation, such as colorful walls, natural lighting, and creative room shapes. Because students expect seamless technology use, studio classrooms feature wireless environments, along with the capability to network with other devices, and flexible "plug-and-play" options for power access. Finally, studio classrooms avoid the concept of the front of classroom as privileged space; instead, flexible chairs and desks help to de-center the room and minimize the common barrier between teacher and student.

At North Carolina State University, circular tables help to promote active discussions and social interactions. Whiteboards along each classroom wall set the scene for "public thinking space," and smaller whiteboards on the doors of storage closets are easily accessible for teamwork brainstorming activities. Smaller whiteboards are stored on two walls of the University of Dayton studio classroom, easily demountable for individual use or grouped into a long series on the wall, alongside other students' boards.

Another visually striking feature of the University of Dayton studio classroom, the off-white walls are marked with a dark horizontal line at two-foot intervals, not only to serve as visual reference, but also to introduce interest to the typically bland surroundings. Patterned carpet in dark purple hues adds color to the floor. Hanging strip fixtures allow an adjustable amount of indirect or direct light, or a combination of both. In addition to students' positive reactions to the aesthetics of the space, professors note that "the room lets people loosen up,"

with a genuine freedom that empowers students to take more responsibility for their learning; for instance, taking a marker and illustrating their point on the white boards without prompting (Dittoe, "Innovative Models of Learning Environments" 87).

Stanford University's Wallenberg Hall, renovated in 2002, provides another successful design model of instructional space. Consisting of five advanced resource classrooms, nineteen additional classrooms, a theatre for classes and small performances, and "breakout rooms," the space also houses an impressive array of technological features. Each classroom has several display screens, laptops, wireless networks, flexible furniture, and several types of writing surfaces, though rooms designed for specific purposes are equipped with additional pieces of technology.

In particular, one meeting space that accommodates up to twenty-two students features soundproof glass windows and retractable blinds on one side, to allow observation space for visitors. Two Windows-based "Websters," big-screen displays for projecting in-class computer, laptop, video, or videoconferences, allow participants to "write" directly on documents, images, or the whiteboard. A wall-mounted remote control that activates electronic devices in the room offers another example of handy technology put to use. To avoid the inevitability of lost remote controls, the mount safely stores the control device, removed only by a faculty password.

Further, videoconferencing equipment connects the classroom with institutions around the world. Twenty laptops, stored in carts, are available to be used exclusively in that classroom, and allow a choice of iBooks, HP Tablet PCs, and Dell laptops. The lightweight, flexible tables and chairs on wheels adjust to several schemes of working styles in a "quickly configurable environment." Finally, "huddleboards," or small lightweight portable whiteboards, are designed especially for group collaboration or presentations. Ideas generated on huddleboards are converted into digital images by using a "copycam"; from there, images can be viewed from the school's website (http://wh.stanford.edu/copycam/firstfloor).

In addition to several classrooms designed for around twenty students, a learning theater provides seating for around 55 people, though it may accommodate up to 150, by using the adjoining classroom spaces on either side of the room. Also, "breakout spaces," located next to classrooms, facilitate small groups. Like classrooms, they have flexible furniture, wireless Internet, and huddleboards.

Figure 1. Break-out space

Figure 2. Typical classroom with flexible furniture.

Figure 3. Huddleboards

Figure 4. Copycam with huddleboards

Figure 5. Learning theater.

Schools of Information design projects

Slated for completion in 2010, the new North Quad building for the School of Information at the University of Michigan emphasizes the major themes of information, communication, and media. School of Information students and faculty members will have access to three TV studios, a Media Gateway, and a cyber café, all shared with other departments housed in the facility, including Screen Arts and Cultures, Communication Studies, the

Language Resource Center, and the Sweetland Writing Center. In addition, the School of Information's instructional space will include media intensive classrooms and areas devoted to research, exhibit space to display student and faculty projects, and graduate student workspace.

Media and information technology, identified as key areas of student interest, will be factored heavily into the design. According to Michigan Dean Terrence McDonald, "[students] expect an interactive experience, an expert teacher who can be a coach and a partner. We're making the transition to the world of active learning where a technologically enabled classroom challenges and enriches the roles of faculty and students" (Serwach, "Regents approve North Quad design").

The recent construction at Indiana University Purdue University Indianapolis (IUPUI) for the School of Library and Information Science and the new School of Informatics, also highlights the role of technology. In addition to classrooms for these two departments, the new building also contains IUPUI's Technology offices and programs, including a global operations center for Internet2, the Indiana Pervasive Computing Research Center, and other offices and labs used for information, technology, and telecommunications. By locating the LIS and Informatics departments within the technology complex, the University aimed to stress its commitment to technology resources and capability to integrate technology into other disciplines.

The facility's 24-hour computer lab offers several multimedia rooms, with high-end PC and Mac workstations and the latest multimedia software. Also, an Adaptive Technology Center provides resources and services for individuals with disabilities, to assist in reading, writing, studying, and information access.

The University of Washington School of Information is focusing on using new technologies to expand the capabilities of their existing classrooms and lab spaces. The facility offers several options for lab spaces, including a Computer Classroom lab with 35 student stations and an instructor station, for hand-on instruction; a Technology Exploration Lab for students to try out newer resources with 24 student stations, an instructor/lab staff station, and 32 computers on a "server wall"; a Team Lab, recently added in 2004, for students to meet in groups without distracting others in the TE Lab or Computer Classroom. In the Team Lab, students have access to three Dell Precision 670 workstations with space for groups to cluster around them, also connected to a 42" wall-mounted Plasma SMART Board for Flat-Panel Display. The

SMART tool turns the flat-panel display into an interactive whiteboard, so that students can control any computer application by touching the display or writing in "digital ink," (with their fingertip or a pen and eraser tool), and then save, print, email, or post all the work online.

Other considerations: Colors, furniture, and lighting

Synthesizing recent literature, Nuhfer concludes that colors most suitable for classrooms "reduce agitation, apprehension and promote a sense of well-being," reflecting a home-like environment, instead of an institutional one ("Some Aspects of an Ideal Classroom: Color, Carpet, Light, and Furniture"). Despite widespread use of "institutional white," no psychological or physiological study supports its use as advantageous; in fact, one suggests just the contrary, that when combined with light, it can be problematic for human vision. Research points to light yellow-orange, beige, pale or light green, or blue-green for three of the four wall surfaces. Pastel oranges and yellows encourage a cheerful, lively, sociable atmosphere; pastel green and blue greens are thought to have a calming effect, especially suitable for relaxation and concentration. Although deep or loud tones, including deep reds, browns, and dark blues are appropriate for trim and incidental areas, they may promote irritability if used in dominant room areas.

Nuhfer suggests a complementary or darker color for the fourth wall that faces the students. Even though few institutions paint walls different colors, using a different color for the front wall has been shown to reduce students' eyestrain, as they shift focus between their notes and the wall.

Although fluorescent lighting is commonly used by institutions, mainly because of its energy efficiency, studies suggest that replacing it with bulbs that produce whiter light, or ideally, full spectrum light, may be beneficial. First, fluorescent light produces a glare from white paper that may cause eyestrain. Full spectrum light also improves color perception.

Pendant fixtures (below) often provide an optimal lighting arrangement, with direct down and indirect up illumination, instead of recessed lights.

Window coverings, including Venetian blinds, shades, and/or drapes, are crucial to avoid washed-out project images from sunlight and glare on computer screens. For more flexible light control, each window should be equipped with two window coverings; for instance, blinds inside the window well to prevent direct sunlight and glare, and shades outside the window well to protect against light seepage at the edges.

Identifying bolted-down furniture, such as swing-arm chairs, as one of the most detrimental threats to an active learning environment, Nuhfer recommends furniture that allows flexible arrangement and several modes of teaching. According to a survey of faculty and TAs at the University of North Carolina, moveable tables and chairs were overwhelmingly preferred, with one projection screen in the center of the teaching space and a moveable podium.

Conclusions

1. We will need multipurpose spaces, with integrated technological components, that will be adaptable into the future.

Technology is integral to the field of information science. Overhead and slide projectors will soon be replaced by integrated multimedia systems and wall-sized built-in screens. These walls will be used for dynamic, multimedia instruction that currently might require several different pieces of equipment but provide less functionality. Teleconferencing may be of

increasing importance--perhaps we will have guest speakers from around the globe!--and there need to be large screens that require a minimum of set-up time.

Virtual learning spaces will be of increasing importance in the future as well. In the case of conservators, perhaps some of their labs that create particularly toxic chemicals will be done virtually, so as to minimize environmental impact. It is likely that distance learning, or a hybrid of distance and classroom learning, will continue to flourish. In addition, we may see more virtual tours--perhaps archives students will visit NARA via a Web cam? The technology available in the "real" classroom should serve the purpose of helping to integrate the virtual classroom into the hybrid whole. The whole world, brought to students via the Web, will become a classroom.

2. The design should support collaborative learning among students and aid professors in their role as facilitators.

Instructors are increasingly operating as facilitators, and the furniture of the classroom should represent this. If students are seated around a conference table, for example, discussion is much more easily established and the professor is integrated into the discussion as a participant. An alternative design might be a split room that combines a "discussion area" with surrounding workstations, enabling professors to work with small groups while the rest of the class works on independent projects. It is increasingly recognized that students should not be treated as a homogeneous group.

3. There should also be informal learning spaces to develop a sense of community.

There is an increasing awareness throughout educational theory that students require avenues of casual social interaction with each other and with their professors, to foster a sense of community. At New York City's Baruch College, students meet up in common spaces throughout the 11-story atrium that runs through the vertical campus. The iSchool needs some kind of common area, as well. This is an especially important concern, as the iSchool that contains many different disciplines that may not have an opportunity to interact in the traditional classroom.

4. There should be elements of the design based around the unique UT-Austin community and adaptable to individual professorial styles.

As iSchool students move into a world of increasing globalization and specialization, it is also important to have a strong sense of location and distinctiveness. At the most basic level, our learning environment should be connected to the outside world: that is, we need windows. Large corner windows maintain a connection with the natural world and the community outside the classroom. Lighting systems that are designed to offer the correct proportion of indirect and direct light can reduce glare, which is important as the use of computer presentations and laptop computers will continue to increase.

The building will be designed to accommodate a diverse population of students and faculty. For instance, aisles, pathways, and furniture arrangements will meet the American Disabilities Act Standards, and the Classroom & Technology Design & Construction Minimum Requirements will also be consulted, to conform to institutional guidelines for considerations including walls, ceilings, room signs, plumbing, heating, ventilation, noises, and emergency exit lights.

Beyond the physical concern of a connection to the outside world is the need for professors to be able to express their unique perspectives and interests within the information community. The classroom should be flexible enough to offer the opportunity for professors to arrange it to suit their style. For example, a professor of digitization who spends a lot of time demonstrating Web sites may prefer to be able to transmit the URLs automatically to the students around a conference table, while another professor might prefer to use PowerPoint exclusively and have the students follow along facing forward. Ideally, the personality of UT-Austin and of the iSchool should be represented in the design choices for the space, which will then also be shaped by additional input and life experiences of the professors themselves. Students and teachers are engaged in a collaborative enterprise, and the ideal environment will support individual identity, as well as helping to create a cohesive classroom unit.

Where We Want to Be: Vision

We will seek to create an iSchool Instructional Space that fosters individual learning and professional development, nurtures teaching and communication between students and professors, and cultivates interdisciplinary collaboration. We will strive to create an environment where students learn the theoretical and practical knowledge necessary to preserve the past, manage the present, and design the future.

Goals, Objectives and Tactical Strategies

Goals= Roman numerals; Objectives= capital letters; Tactical Strategies= numbers

I. To create spaces for individual and group learning.
   A. All students will have access to computers in every classroom.
      1. Equip all classrooms with computers, like 546.
      2. Equip 50% of classrooms with digitization equipment.
      3. Equip all classrooms with enough power outlets that all students can plug in laptops no matter where they choose to sit.
   B. All professors will have access to the latest technology to aid instruction in every classroom.
      1. Equip classrooms with in-wall computer projections, whiteboards, and easy to use, hand-held computer slide advancers.
   C. 75% of instructional space will be devoted to group learning, 25% devoted to individual learning.
      1. Furnish classrooms and labs with tables ideal for hosting collaborating groups of students.
      2. Create computer-equipped space in the IT Lab where individuals can work privately without being disrupted by others.
      3. Create computer-equipped spaces in the IT Lab where groups can work privately without disrupting others.

   4. Create a reading room with Library and Information Studies periodicals and reference books, which can be used as a quiet study area.

II.   To design environments that will foster cohesion within the iSchool and also support the activities of individual specialties.
   A. All of the programs within the iSchool will be housed under one roof.
      1. Incorporate into the instructional space classrooms and labs that support activities essential to the various aspects of information professionals.
      2. Create classrooms and labs that are open or have windows to the inside, so that others can view and learn about the various activities and programs.
   B. The conservation labs will have a space 25% bigger than what they have now.
      1. Allocate space in the new building, based on conservators' special needs.
      2. Create a security system for the conservation area.

III.   To ensure spaces facilitate communication between faculty and students.
   A. Majority of faculty will feel they are able to communicate effectively with their students.
      1. Equip classrooms with the latest in instructional technology.
      2. Make classrooms re-sizable with movable soundproof barriers, so that the size of each classroom is optimal to foster communication within the class.
      3. Place faculty offices near classrooms and labs.
   B. Majority of students will feel they are able to communicate effectively with faculty and other students.
      1. Make classrooms re-sizable with movable soundproof barriers, so that the size of each classroom is optimal to foster communication within the class.
      2. Furnish the classrooms with furniture that can be easily rearranged to suit the needs of the class and promote communication.

3. Design classrooms so that all students will be able to see the professor station, in-wall computer display, and whiteboards, without any physical barriers.

IV. To support the competitive nature of the program and provide opportunities for the anticipated growth of the school, to continue to produce students well-equipped for the dynamics of the information field, and to attract new students.

    A. The iSchool will be ranked among the top 5 Library and Information Science programs within 5 years.

        1. Equip instructional spaces with the latest instructional technology, so that the faculty may teach to the best of their ability.

        2. Equip instructional spaces with the latest technology so that the students learn to use it to their best advantage.

        3. Incorporate flexibility into lab designs to be able to adapt to future technology and equipment acquisitions.

    B. 98% of graduates will be employed within six months of graduation.

        1. Equip instructional spaces with the latest technology, so that the students learn to use it to their best advantage.

        2. Use strategies listed under goal 3 to promote communication, as enabling networking and connections among both students and faculty are essential in the competitive job market.

Project Budget Narrative

We chose to submit a line item budget for our Instructional Space planning document (see attached). This budget format best suits the needs of our project, since the implementation of our design represents a one-time cost. This means that though there is no budget from the previous year on which to base our costs, we don't have to worry about projecting the past into the future and are free to propose expenditures as necessary for this project. We chose not to include specific number of items or made lines for individual components (such as different types of chairs), as we wanted to be able to adjust the types of items we will be buying as we have more of a concept of the space. The line item format also has the advantage of being easy to understand and to justify. Because we had such a generous allowance of funds, we do not anticipate that underestimation will be a problem, and therefore allocated funds without regard to which of our objectives is most important, an ideal situation since all of our objectives are priorities.

Our budget is divided into ten broad categories, which are each subdivided into narrower categories as necessary to best illustrate the distribution of funds. The first category, "Wall/floor/ceiling items for all areas," covers standard fixtures that will be installed throughout the iSchool's instructional spaces. Similarly, the second category, "High end/custom-made furniture for all spaces," includes the costs for furniture, namely tables, chairs, and cabinets or lockers, that will be found throughout the instructional spaces. We specified that the furniture be high-end or custom-made for two reasons. First, we want the students and faculty who use the instructional spaces to be as comfortable and ergonomically healthy as possible, so we want to buy furniture that will support comfort and good posture. Second, employing local artisans to make custom-made furniture will be beneficial to the community, both economically and by forging ties between the iSchool and the Austin community.

The third category, "Special furniture for reading rooms/computer lab," includes furniture specific to the reading room and computer lab included in our design plan. This furniture will differ from that used in the rest of the instructional space in that we want to create a cozy, relaxed space for studying, featuring furnishings that are softer and more supportive of relaxation.

"Classrooms," our fourth category, includes the funds allotted for the advanced classroom technology outlined in our strategic plan. Special features include movable soundproof walls to custom-size the classrooms, as well as interactive whiteboards and huddleboards. This category covers features to be included in all classrooms, not specialized equipment for various disciplines, which have their own categories.

"IT Lab" is our fifth budget category. We have included the cost of computers in our budget in case the group in charge of technology infrastructure runs out of funds. It is best to be prepared for any eventuality, and since computers are such an integral part of the iSchool, we felt it was appropriate to contribute some of our budget to the goal of providing the best access to information possible.

The sixth category of "Digitization equipment" provides funds for specialized equipment necessary for classes and independent projects focusing on digitization. We aim to supply at least half, if not all, of our classrooms with this equipment. Since we believe that the current equipment that we have in SZB 546 will continue to be adequate for most digitization projects, the amount allocated for digitization only represents a portion of the technology that will be available for students. . "Conservation and preservation labs," our seventh category, also provides for specialized equipment, this time addressing the needs of conservation and preservation students. In assigning these funds, we took into account the need for more storage space as well as the need for safety and security that our needs assessment revealed. Again we assumed that much of the current equipment will be moved to the new space.

The next category, "Consultants and contractors," makes room in our budget for expert opinions. Since the health, comfort, and well-being of iSchool students, faculty, and staff are of the utmost importance, we undertook to ensure that the new instructional spaces promote these factors. A Feng Shui consultant, disabilities consultant, and professional movers will be employed so that the new iSchool is a place of positive energy that is accessible to all, the creation of which will not strain any backs.

The needs of our team while designing the new instructional space constitute the ninth category, "Administrative expenses." We have included a travel allowance in our budget so that we can visit schools around the country and see for ourselves the innovations identified in our strategic plan, in order to better implement them into the iSchool's instructional spaces. Finally,

our tenth category covers "Other" expenses, including survey incentives and a small emergency fund.

Plan for Evaluation

While the iSchool's new instructional space is being designed and constructed, we propose quarterly meetings with the Executive Planning Group and the team coordinators to keep the project on track and evaluate its progress. These meetings will provide an opportunity to share what has been accomplished and what the next steps are; they will likely move from quarterly to monthly as the project progresses. Problems that may have arisen will be addressed and changes made to the plans as necessary. In addition, every six months, approximately at the end of each semester, the team will reevaluate our goals and objectives to ensure the plan remains current with evolving needs and new technology. In order to perform this reevaluation, we will continue to monitor the changing demographics of the iSchool, as well as being receptive to any significant changes in the students' or faculty's needs and desires.

Once the project is completed, we will evaluate its success in terms of whether our objectives have been met. Simple classroom visits will be sufficient to determine whether all students have access to computers in the classrooms, and whether professors are making use of the technology provided for them. A review of the final floor plan for the instructional space will reveal what percentages of the space are allotted for specific activities and whether these percentages align with the stated objectives. Surveys of both students and faculty will be conducted in order to determine whether they feel that communication among faculty and students is enabled and effective, as well as to assess satisfaction with the design of the instructional space. These surveys will be distributed at the end of each semester, and changes implemented according to their findings if possible. The ranking of the iSchool is determined by outside sources, but is nonetheless an available indicator of the school's performance and reputation, both of which may be influenced by the new instructional space. Finally, the surveys conducted of recent graduates will indicate what percentage are employed within six months of graduation, and may also provide feedback on graduate's satisfaction with the instruction received at the iSchool.

Grant Proposal: Undergraduate Research Help Center

Executive Summary

Undergraduate students at the University of Texas are expected to produce at least one research-supported paper. Few, however, have received formal training designed to teach strategies for approaching the search process systematically and navigating the mass of electronic databases, online publications, and print materials available to students. According to recent reports at both the national and campus-wide levels, undergraduate students are inadequately equipped with research methods and urgently need further specialized attention to locate and use relevant information, essential skills in their educational endeavors and beyond graduation.

As a solution, we propose the creation of the University of Texas Undergraduate Research Help Center (RHC), where undergraduate students can meet one-on-one with trained graduate student consultants from the School of Information who will help them navigate their research assignments. Consultants will be able to teach students about the steps of the research process, based on the Big 6 model, as well as the types of resources available to them through the University's library system. These services will be available to all undergraduate students free of charge.

The RHC will be housed in the Perry-Castaneda Library, the main library of the university, and will be open 7 days a week with morning, afternoon, and evening appointments lasting an hour each. Appointments can be scheduled ahead of time or handled on a walk-in basis as availability allows. The RHC will be managed by two student co-directors with an additional 20 students hired as consultants.

With the generous support of the Sterling-Turner Foundation, in addition to funding already secured from the School of Information, the Library System, and the Office of Undergraduate Studies, we will be able to finance the RHC for a pilot year. The majority of our costs will be for the wages of the consultants, with additional money used for furniture, technology, and supplies for the RHC office space. With the proven success we expect to find in the first year, the School of Information and Office of Undergraduate Studies both agree to commit additional moneys to continue the Center's operations.

The RHC will be run by graduate students in the University's School of Information, one of the nation's top Information Studies programs, which offers a wide variety of specialties in the field of information. Rooted in both research and education programs, the iSchool's vision parallels the goals of the RHC. The curriculum is designed to prepare information professionals to locate and use information, as well as to share and improve access for other individuals.

Statement of Need

The development of a Research Help Center is necessary to support the University's commitment to improving standards for the current undergraduate curriculum. According to UT's Commission of 125 Final Report, an assessment of the University's current stance and strategic initiatives for the next 25 years, students and alumni cited "inadequate training in the tools and methods of research" among the shortcomings experienced during their undergraduate tenure. In response, the committee recommended that the University "develop a new undergraduate core curriculum to better prepare students for lives of accomplishment."

Further, the 2007 Association of College and Research Libraries ethnographic study of how undergraduates approach research papers revealed surprising trends, namely the extent to which students consult parents and other family members about their academic work, students' strong assumptions that only faculty members are experts at finding scholarly references, and their struggles with using technology for research purposes (*Studying Students*, 2007). Such research practices emphasize the need to develop and support student-centered pedagogical strategies.

Students in the "Internet Age" are faced with an overwhelming amount of resources at their fingertips, particularly on a large college campus. Sifting through them single-handedly to find relevant information can easily spin into a frustrating process. Studies suggest that students are increasingly reluctant to dig into the literature, particularly primary sources, instead relying on search engine results or help from their friends, or they simply browse the library shelves to find an item of interest (Still, 1997). Students who successfully find and include resources in their research are then presented with such challenges as avoiding plagiarism, documenting electronic sources, and verifying reliable sources (Driscoll, 2007). Professors recognize undergraduate students' difficulty with processing research-based literature effectively and must decide whether to simply discontinue research assignments or to fit a lesson on synthesizing

research-based information into an already full course syllabus (Williams, 2005). The Research Help Center aims to solve both the students' and professors' dilemmas, by providing students with personalized, face-to-face guidance to understand the research process and familiarize them with useful materials. At the same time, Information School students who work in the RHC will benefit from developing and exercising reference and teaching skills in a workplace environment.

While UT's current undergraduate resources, particularly the library, the Writing Center, and the Learning Center, offer valuable research tools, a Research Help Center will provide students with live assistance to find and use those tools in their research papers. For instance, the UT library links to possible resources and specific research guides for some courses, but students must first locate the links page and then navigate through and decide on appropriate sources. With one-on-one guidance from RHC assistants, the process could be streamlined and be more productive for students by teaching them to use a systematic research strategy and materials recommended by each course's professor. The RHC will collaborate with library staff to provide personalized attention to students in areas that will complement current resources, such as online research tutorials.

Project Description

Goal:

The Undergraduate Research Help Center (RHC) will improve the research skills of undergraduate students at the University of Texas at Austin.

Objectives:

- 75% of students who meet with RHC consultants at the Center will report a better understanding of the research process and/or the resources available to them.
- 75% of professors whose students meet with RHC consultants will report an improvement in students' work with regards to research.

Methods:

Through professors' nominations, twenty graduate students from the School of Information will be hired for the school year as RHC consultants, working 10 hours per week. In

addition, two graduate students will be hired for 20 hour-per-week jobs as RHC co-directors. Beginning in August, RHC consultants will complete 20 hours of training on the Big 6 model of research, the UT library catalog system, and the UT subscription databases.

For our pilot year, we will partner with 10 professors from various undergraduate programs within the University whose classes contain a large research component. These professors will require their students to visit the RHC for a consultation at least once over the course of the semester in connection to a research assignment. RHC consultants will visit the professors' classes to teach students about the help available through the RHC.

The Center will be housed in UT's Perry-Castaneda Library and will be open for appointments from 10am – 10 pm Monday through Thursday, 10am – 6 pm Friday and Saturday, and 12 pm – 10 pm on Sunday. Consultations will begin in mid-September, with at least two consultants working at all times.

Students will visit, call, or email the Center to schedule a one hour appointment where they will work one-on-one with a RHC consultant. Students will be asked to bring a copy of their assignment and any work they have done up to that point, and the consultants will help them understand and work through their current stage of the research process. Throughout the session, the consultant will take notes of the discussion. These notes will be typed up and emailed to the student and the professor, and a hard copy will be filed at the RHC. Consultants will encourage students to make follow-up appointments with the RHC, the Undergraduate Writing Center, or specific subject librarians as appropriate.

Additional funding for the RHC will come from the School of Information, the UT Library System, and the Office of Undergraduate Studies.

Evaluation:

At the end of each semester, we will compile the data from the consultation forms to see how frequently students used the Center, during which stages of the research process students were most likely to visit, and which programs and professors had students who most utilized the Center. In addition, we will survey both our partnering professors and the students in their classes regarding their experience at the Center, what they learned, and what could be improved.

Budget

Please see separate Excel document attached.

Organization Information

Rooted in the slogan, "Preserve the past, manage the present, design the future," UT's School of Information aims to study information and its social context. By training students to manage and design systems that allow people access to information, the school's influence reaches schools, corporations, software companies, libraries, museums, archives, and other sources that people consult for documented knowledge. The program focuses on information as a social, human-centered resource, and the curriculum prepares professionals to ensure its existence, usability, and accessibility for current and future generations.

Ranked in the Top 10 nationally and #1 in Archives & Preservation, the iSchool offers a PhD program and a Master of Science program in Information Studies with specialties in archival enterprise, information architecture, information policy, information systems design and management, information usability, librarianship, multimedia design, museum work, preservation and conservations studies, and records management, as well as offering general information study courses for undergraduates and graduates in other departments. The department collaborates with other academic units across campus, particularly in the humanities, sciences, social sciences, and engineering, as well as with professional schools, government agencies, and technology organizations.

According to its vision, "the School of Information aims to be the premier research and education program for 21st Century information professionals who will apply the theoretical and practical knowledge necessary to preserve the past, manage the present, and design the future." The iSchool is guided by a mission "to shape the field of information studies for human and social benefit" not only by learning about new types of information and educating the next generation of information profession leaders, but also through service, collaboration, and applying human-centered ideals to work strategies.

Conclusion

The University of Texas is committed to improving the standards of the undergraduate curriculum and has specifically identified the need to better educate students in the tools and methods of research. The Research Help Center proposed by the School of Information can play an important role in helping the University reach this goal. Graduate students of the iSchool will earn valuable experience which will benefit them in their future information careers, while undergraduate students will profit from the knowledge and experience the graduate students are ready to share.

With various branches of the University already on board, we hope we can count on your generous financial support to make this project a reality.

References

Our references are in the APA style.

Beichner, R. (2006). North Carolina State University: SCALE-UP. In D. G. Oblinger (Ed.), *Learning Spaces.* Boulder: Educause. Retrieved 17 October 2007, http://www.educause.edu/learningspaces

Bickford D. J. (2002). Navigating the White Waters of Collaborative Work in Shaping Learning Environments. In N. Van Note Chism & D.J. Bickford (Eds.), *The Importance of Physical Space in Creating Supportive Learning*. San Francisco: Jossey-Bass.

Brown M, Long P. (2006). Trends in Learning Space Design. In D. G. Oblinger (Ed.), *Learning Spaces.* Boulder: Educause. Retrieved 17 October 2007, http://www.educause.edu/learningspaces

Cattier, A. R. (2006). Navigating Toward the Next-Generation Computer Lab. In D. G. Oblinger (Ed.), *Learning Spaces.* Boulder: Educause. Retrieved 17 October 2007, http://www.educause.edu/learningspaces

Design ideas for schools of the 21st century. Jan 1998 v70 i5 p18(1) *American School and University*, 70, 5. p.18(1). Retrieved October 25, 2007.

Dittoe, W. (2002). Innovative Models of Learning Environments. In N. Van Note Chism & D. J. Bickford (Eds.), *The Importance of Physical Space in Creating Supportive Learning Environments.* San Francisco: Jossey-Bass.

Dittoe, W. (2006). Seriously Cool Places: The Future of Learning-Centered Built Environments. In D. G. Oblinger (Ed.), *Learning Spaces.* Boulder: Educause. Retrieved 17 October 2007, http://www.educause.edu/learningspaces

Driscoll, D. L. *Research: Overview – The OWL at Purdue.* Retrieved 15 Octrober 2007, from http://owl.english.purdue.edu/owl/resource/552/01.

Foster, N. F. & Gibbons, S. (Eds.). (2007). *Studying Students: The Undergraduate Research Project at the University of Rochester.* Chicago: Association of College and Research Libraries.

Gilbert D. (2006). Stanford University: Wallenberg Hall. In D. G. Oblinger (Ed.), *Learning Spaces.* Boulder: Educause. Retrieved 17 October 2007, http://www.educause.edu/learningspaces

Graetz KA, Goliber MJ. (2002). Designing Collaborative Learning Places: Psychological Foundations and New Frontiers. In N. Van Note Chism & D. J. Bickford (Eds.), *The*

Importance of Physical Space in Creating Supportive Learning Environments. San Francisco: Jossey-Bass.

Hiltz, S. R. (June 1990). Collaborative learning: the Virtual Classroom approach. *T H E Journal (Technological Horizons In Education)*, 17, n10. p.59(7). Retrieved October 25, 2007.

Holeton R. (2006). Stanford University: GroupSpaces. In D. G. Oblinger (Ed.), *Learning Spaces*. Boulder: Educause. Retrieved 17 October 2007, http://www.educause.edu/ learningspaces

Hunley S, Schaller M. (2006). Assessing Learning Spaces. In D. G. Oblinger (Ed.), *Learning Spaces*. Boulder: Educause. Retrieved 17 October 2007, http://www.educause.edu/ learningspaces

In Equal Measure. July 1, 2003 v75 i11 pNA *American School and University,* 75, 11. Retrieved October 23, 2007.

Indiana University School of Library and Information Science Indianapolis. Retrieved 25 October 2007. http://www.slis.iupui.edu/

Johnson, C. (2006). Sustaining and Supporting Learning Spaces. In D. G. Oblinger (Ed.), *Learning Spaces*. Boulder: Educause. Retrieved 17 October 2007, http://www.educause.edu/learningspaces

Kerkham, L., and Comber, B. (June 2007). Literacy, places and identity: the complexity of teaching environmental communications.(Report). *Australian Journal of Language and Literacy*, 30, 2. p.134(15). Retrieved October 25, 2007.

Lattuca, L R (Nov-Dec 2002). Learning interdisciplinarity: sociocultural perspectives on academic work. *Journal of Higher Education*, 73, 6. p.711(29). Retrieved October 25, 2007

Live and learn. Architecture 91.10 (Oct 2002): 49(1). Retrieved October 22, 2007.

Lomas C & Oblinger D. G. (2006). Student Practices and Their Impact on Learning Spaces. In D. G. Oblinger (Ed.), *Learning Spaces*. Boulder: Educause. Retrieved 17 October 2007, http://www.educause.edu/learningspaces

Lopez H, Gee, L. (2006). Estrella Mountain Community College: The Learning Studios Project. In D. G. Oblinger (Ed.), *Learning Spaces*. Boulder: Educause. Retrieved 17 October 2007, http://www.educause.edu/learningspaces

Nuhfer, E. B. (2004). Some Aspects of an Ideal Classroom: Color, Carpet, Light, and Furniture. Presented for Idaho State University's Council for Teaching and Learning. Retrieved 17 October 2007, http://www.isu.edu/ctl/nutshells/IdealClass_files/ IdealClass.html

Serwach, J. Regents approve North Quad design. *University of Michigan News Service.* Retrieved 18 October 2007, http://www.ns.umich.edu/htdocs/releases/ story.php?id=3061.

Skiba, D J (March-April 2006). Think spots: where are your learning spaces?. *Nursing Education Perspectives*, 27, 2. p.103(2). Retrieved October 25, 2007.

Smith, S. & Mooney, K. (2006). St. Lawrence University: Center for Teaching and Learning. In D. G. Oblinger (Ed.), *Learning Spaces.* Boulder: Educause. Retrieved 17 October 2007, http://www.educause.edu/learningspaces

Stanford University Wallenberg Hall. Retrieved 14 October 2007, http://wallenberg.stanford.edu/ classresources/details.html

Still, J. (1997). Beguines in Outer Space, or, the Undergraduate Research Process. *The History Teacher,* 31(1), 109-116.

The Americans with Disabilities Act Checklist for Readily Achievable Barrier Removal. Checklist for Existing Facilities version 2.1. Retrieved 23 October 2007, from http://www.usdoj.gov/crt/ada/checktxt.htm.

The Sub-Committee of the University Committee of Instructional Facilities. Classroom & Technology Design & Construction Minimum Requirements. Retrieved 22 October 2007, from http://clc.its.psu.edu.pdf

University of Texas Commission of 125, *Final Report*. Retrieved 25 November 2007, from http://www.utexas.edu/com125/UTComm125Report.pdf.

University of Washington Information School Technology Labs. Retrieved 22 October 2007, from http://www.ischool.washington.edu/technology/labs

Van Note Chism, N. (2006). Challenging Traditional Assumptions and Rethinking Learning Spaces. In D. G. Oblinger (Ed.), *Learning Spaces.* Boulder: Educause. Retrieved 17 October 2007, http://www.educause.edu/learningspaces

Van Note Chism, N. (2002). A Tale of Two Classrooms. In N. Van Note Chism & D. J. Bickford (Eds.), *The Importance of Physical Space in Creating Supportive Learning Environments.* San Francisco: Jossey-Bass.

Williams, S. (2005). Guiding Students through the Jungle of Research-based Literature. *College Teaching,* 53(4), 137-9.

Appendix: List of Attachments

I.   User Profiles

II. Project Budget

III. Grant Budget

IV. Project Timeline

Abby Bohanan

Moved to Austin about a year ago to pursue an MSIS degree at UT.

Graduated with a BA in English and concentration in Ancient Greek and Roman Studies, from Furman University, a small liberal arts school in Greenville, South Carolina.

- *Student at UT-Austin*
  Hobbies: Photography, rock-climbing, traveling, and running with her boxer dog, Baxter
  Member of: SLA, SASI, Austin History Museum, and Austin Artists' Association

- *Age 26, female, single*

- *Lives in Austin, TX*

Personal motto: "No harm in trying a little of everything."

-Abby

Background

Originally from Savannah, GA, Abby moved to Austin about a year ago to attend graduate school at UT. After graduating from Furman, she traveled throughout Europe on a Rotary Club Fellowship for a year, then moved back home and worked in an art gallery for two years. In her spare time, she took a few continuing education classes from Savannah College of Art and Design, in charcoals, photography, and pottery. She also worked in the research department of a nonprofit charity, just prior to beginning graduate school. She became interested in working on an MSIS degree through a friend in the Preservation Administration program. She considered the Preservation program for herself, but decided that the general MSIS track would allow more flexibility in job searching. After taking a full class load for the past two semesters and three classes over the summer in a variety of areas, she and her advisor hope to whittle her interests, to focus on possibilities for her capstone project.

Goals

Abby is planning to finish her MSIS degree within the next year. She currently works at the Ransom Center and hopes to secure an internship at the Blanton Art Museum that she applied for at the beginning of the semester. She considers the Archives field interesting, but suspects that Special Libraries may hold the most potential for her interests. In particular, she would like to explore the possibilities of working in art, business, and law libraries after graduating from the iSchool.

Scenario 1

Abby's first class each week focuses on law librarianship. So far, the course has been very demanding, with an average of 250 pages of reading to prepare for the weekly seminar meetings. She enjoys the subject area, so she's managed to get through most of the material each week. But, she has found it helpful to read through her notes to prepare for the discussion just before class time. So far this semester, she has been able to read outside on the grass in front of SZB, but she would appreciate a small, quiet room, perhaps an empty classroom or lab space, as the weather turns cooler. The course is held in a large classroom, with about 25 chairs behind several large tables, even though only seven students are enrolled in the class. Although she and her classmates have the flexibility to move around and spread out, they rarely choose to sit in the front row, and the extra space creates a sense of disconnect between the students and professor.

Scenario 2

For Abby's Understanding Users course, most of her assignments are group projects. Her five-person team meets at least once a week outside of class, usually at the stools near the elevators on the fourth floor of SZB. If that space is occupied or the team finds it difficult to communicate in stools each facing the window, they often move to the lab. Even though the students can cluster around a computer to work on their upcoming assignments, sometimes they find the space crowded or noisy; or, if only one or two students are in the lab, they feel their own discussion might be distracting to others. Access to an empty classroom would be especially valuable, to bounce ideas off one another in a quiet, remote space, with white-boards to brainstorm lists, tables to share print resources, and computers with Internet access.

Barry Brownstein

Barry has a BA from Hampshire College, in 1994. After graduation he worked as a historical re-enactor around the New England area, beginning as a Revolutionary War figure and later as a Civil War (Union) soldier.

He moved to Austin in 2004 to pursue a career in archives, at the LBJ library. He decided to get his MSIS, concentration in archives, from UT-Austin and began his studies in 2006.

Background

Barry grew up in Utica, and as a child took many trips with his father to the Old Rhinebeck to see their WWI barnstorming performances. Thus began a lifelong interest not just in history but in the primary material from which history is learned. He began historical re-enacting in college, for fun, and eventually after college he turned it into a livelihood. (He gave tours of the Freedom Trail dressed as Benjamin Franklin.) He then worked for WGBH, Boston's public TV station, as an actor in their many Revolutionary War pieces. As he found it difficult to survive on this intermittent salary he also began tending bar at night and eventually branched out into Civil War re-enacting as well. His interest in more formal studies of history began to grow after college, but he did not want to pursue a career in academia. Eventually, at the urging of his mother, he decided to move to Austin to seek employment at the LBJ Library, to see if he liked working in an archives. He found the work extremely rewarding and decided to pursue a career in the field.

Goals

Barry is planning to finish his MSIS degree within the next year, although he may stay on for an extra semester to earn the Certificate of Advanced Study, since he knows that it can be difficult to find work as an archivist. Barry hopes to continue in presidential archives but hopes that someday there will be a libertarian ex-president, whose politics will more to his liking.

- *Student at UT-Austin*
    - *Hobbies: Exploring small Texas towns and especially small Texas museums, visiting Civil War and Mexican War battlefields, reading, going to the theater.*
    - *Member of: SAA*

- *Age 36, male, single*

- *Lives in Austin, TX*

Personal motto: "To understand the past you must bring it into the present."

-Barry

Scenario 1

Barry knows that the future of archival preservation will certainly be digital and that he needs experience in both theory and practice of digital preservation as well as the traditional paper. He does not like that at the iSchool the two subjects are nearly always treated as separate entities, in separate classrooms, when in a modern Presidential archives he may well be expected to be fluent in both. He would like instructional space with integrates computers and traditional modes of teaching, perhaps a room with the big tables of a reading room (for when archival materials are brought in) and also lots of outlets for laptops and desktops for student use. There should also be computers that are readily accessible for those professors whose comfort with technology may not be complete. He would like to see more archives' professors and students integrate technology into their presentations.

Scenario 2

Due in no small part to his nontraditional approach to his studies, Barry would like more opportunities to meet with his fellow students, archivists and others, in casual situations. He finds the linear classroom seating arrangements limiting in this regard, since he cannot talk to the people around him with ease. He asks that there be more attention paid to the social needs of the students. Perhaps there could be a place where he could meet people before or after class for coffee, and talk without distracting those around him who are trying to work (as in the IT Lab)? He would ideally like a cafe near the classrooms, but would settle for a comfortable area to meet with friends or work on group projects, or even a small iSchool library or reading room of its own. Though he recognizes that his request does not strictly represent instructional space, he does believe that his academic interests would be better served by a shared space for he and his fellow students to meet each other--and especially to meet with their professors--without having interactions be formal.

Margaret Larson

Originally from Gettysburg, PA.

BS in Elementary Education

Masters and PhD in LIS from Univ. of Maryland

Assistant Professor at UT Austin since 1996

- *Professor at Univ of Texas at Austin*
- *Member of ALA, TLA; currently serving on ALA's Caldecott Award selection committee*
- *Hobbies: Travel, Crochet, Wine-Tasting, Pilates, Reading*
- *Age 56, Married*
- *1 Daughter, 28*
- *Lives in Austin, TX*

"I'm honored to prepare the next generation of school media specialists for the challenge of educating children to be critical thinkers in our information-rich culture."

-Margaret Larson

Background

Margaret began her professional career as a third grade teacher outside of Washington, D.C. After four years in the classroom, she began working part-time on her MSIS while raising her young daughter. After finishing her masters, she worked for eight years as an elementary school librarian, followed by three years as the school district's director of library services. She then began working on her PhD, writing her dissertation on school library services for ESL students and their parents. Finishing her PhD the same year that her daughter graduated from high school, she was hired by UT as an assistant professor and relocated to Austin with her husband, who works in development for an environmental non-profit organization. She currently teaches classes such as Materials for Children, School Media Management, Programming for Children/Young Adults, and Electronic Resources for Youth.

Goals

Margaret hopes to collaborate with professors and students in the College of Education on developing curriculum for teaching information literacy and the research process. She is also working on developing a dialogue between librarians from AISD and APL to promote collaboration and cooperation between the two groups.

Scenario 1

Margaret's Electronic Resources for Youth class is one of her most popular, with usually around 20 students. She likes the class to be flexible and hands-on. She often has the students work together in pairs or small groups, so she would like the classroom to have tables for students to group around instead of having linear rows. Class assignments often involve computer use, so she would like the classroom to have enough computers for each student to have his/her own while providing space/outlets for students who prefer use their own laptops. The computers also need to be spaced far enough apart so that small groups of students can work together using one computer comfortably. She doesn't use a podium or desk at the front of the room, but prefers to sit at the same level as the students. Group discussions are an important aspect of the class, and she hopes the seats can be arranged so that everyone is able to see each other clearly (with no poles blocking the view). She does like having a projection screen at the front of the room for when either she or student groups have information to present.

Scenario 2

Margaret is continually inundated with advance copy children's books sent her to by book publishers. She does not have time to read them all, yet they continue to pile up in her office. She would like a place to store them so that they are readily available for both herself and her students. She'd like for the space to be in the iSchool building as opposed to in one of the university's existing libraries. She would also like the space to be secure, so that only her students have access to the books and others don't wander off with them. She thinks it might be nice to have this children's book collection be part of a larger reading room which could be used by all iSchool students.

Simon Reynolds

Grew up in Portland, OR.

BS in Computer Science, with a minor in History from UCLA.

Masters and PhD in LIS from University of Michigan.

- *Assistant Professor U. Texas at Austin*

- *Hobbies: Playing video games, watching football on the weekends, water-skiing.*

- *Age 35, Male, married*
- *One son, 4 years old*
- *Lives in Austin, TX*

"I want to get iSchool students excited about digital technology and help them to discover why it is important that they understand the technology, in terms of functionality, usability, and accessibility."

- Simon Reynolds

Background

From a very young age Simon was interested in computers. His father bought a Commodore 64 when he was young and before long Simon was not only playing the games, but trying to figure out the software worked. By senior year of high school he was a decent program hacker. This prompted him major in Computer Science in college During his college years he spent a large amount of time first on BBSs and then on the World Wide Web. In his sophomore year Simon took an American history class which he enjoyed history, so much so that he decided to minor in history. The combination of these loves prompted him to go for a PhD in LIS instead of CS. While pursuing his PhD, Simon became interested in Digitization and the emerging Digital Library Initiatives. He wrote his dissertation on how Archives should be more aggressive in creating digital libraries. He currently teaches classes about Digitization, Digital Libraries, and Usability at the iSchool.

Goals

Professor Reynolds is enthusiastic about teaching the next generation of librarians in the digital age. He wants the students who take his classes to learn not only theory but also receive hands-on experience with the technology of the field. He is currently researching the usability and accessibility of Flash and other web apps in different sized digital libraries, museums, and archives. Simon hopes to one day write a textbook on teaching technology to adults.

Scenario 1

Simon is going to be teaching a class on advanced digital library techniques. He believes that this is an important class with a large number of students who want to take it. He hopes that he can have 20-25 students in the class. He wants to make it a hands-on class, with projects in advanced digitization and the creation of a digital library. Since the students will have already taken Survey of Digitization and one other class on Digital Libraries, he believes that he should be able to assign basic projects to the students and they will be able to complete them without much instruction. Therefore, he wants to be able to teach more complicated ideas and concepts, which will involve programs such as Flash. To teach the class Simon will need a classroom that is big enough to accommodate the class and is equipped with computers and basic digitization equipment so that he can give the students practical experience in class.

Scenario 2

Simon wants to assign projects to his students to work on outside of class. He is going to let each student choose if he or she wants to work alone or in a group. The projects will be hands-on and may require such items as scanners and video digitization equipment and computer programs such as iMovie and Flash. Some students may be working with special materials that come from a special collection, so there needs to be a way to store them so that the students have access to them but no one else does. Some students may want to add narration to their projects, so they will need access to a soundproof room with a microphone. Simon is very excited about giving his students these projects because he knows that the iSchool will be able to accommodate their needs.

Sarah Nelson

Grew up in Winter Park, FL

BA in History from Cornell University with a minor in Chemistry

Currently in her second year of the Conservation program at UT

Student at UT-Austin

Hobbies: Swimming; knitting with elderly people at nursing home where she volunteers; reading Nature *to keep up with the latest in scientific news*
Age 24, female, single
Lives in Austin, TX

Personal motto: "What's old is new again."

-Sarah

Background

Growing up in central Florida, surrounded by retired people, Sarah has always had an appreciation for old things. She began her undergraduate studies on a pre-med track, intending to become a geriatric specialist, but soon discovered that she was too sensitive to constantly deal with death, which is naturally part of a doctor's life. Sarah turned instead to history, where she could continue her love affair with bygone eras without experiencing a sense of personal loss. During a particularly interesting class on the history of the book her junior year, Sarah learned of conservation as a career, and immediately decided that is was perfect for her, combining her interest in the past with her affinity for science to allow her to fulfill her dream of keeping the old around as long as possible, albeit in an unexpected way. Upon graduating from Cornell, Sarah moved to Austin and started the iSchool's conservation program, never looking back (well, except as required by her studies).

Goals

Sarah is currently trying to secure an internship for her third year. She is most interested in the conservation of paper, and hopes to find work involving historical documents. For now, she is concentrating on learning the techniques a conservator needs, but ultimately is interested in being on the cutting edge of the field, working with new technology and science to develop new and improved conservation procedures.

Scenario 1

Sarah's favorite part of the conservation program, Paper Lab, is both a class and a place. Her first year in the program, there were only twelve students using the space, so each one could have their own table. This year, there are fourteen, and those two extra people mean space is a little tight, making it hard to find room to work. The same is true in her Book Lab, and the problem is compounded when the class members are working on larger projects that require more storage space. During the first weeks of the semester, one of the new students with whom Sarah was forced to share a workspace almost knocked over a chemical solution onto her project; disaster was averted only by her quick reflexes.

Scenario 2

Because of her background in history, Sarah is extremely protective of the valuable material entrusted to her as a conservator. She appreciates that the labs are accessible only to those with the appropriate key, but doesn't like having to go through too many locked doors, and wishes she could just swipe her UT ID and not have to worry about carrying a key. It's not that she doesn't trust the other iSchool students, but she knows that they don't understand what a conservator does and may not be aware of how rare or sensitive some of the materials she conserves are. Ideally, Sarah would like to interact more with the rest of the iSchool community, but wonders how to enlighten them about the wonders of conservation without compromising security.

Instructional Spaces Budget - Group 4

Item	Total	Group Total
Wall/floor/ceiling items for all areas		
Hanging strip light fixtures	$30,000.00	
In-wall displays for projecting in-class computer, laptop, video, or video conferences	$75,000.00	
Venetian blinds, shades, and/or drapes	$10,000.00	
Wall displays	$10,000.00	
		$125,000.00
High end/custom-made furniture for all spaces		
Tables	$200,000.00	
Chairs	$500,000.00	
Cabinets/lockers	$300,000.00	
		$1,000,000.00
Special furniture for reading rooms/computer lab		
Couches - high end/custom-made	$150,000.00	
Bookshelves - high end/custom-made	$80,000.00	
Rugs	$8,000.00	
		$238,000.00
Classrooms		
1 large room - 50 students. (w/movable furniture)		
2 medium rooms - 25 students each		
1 small room - 20 students		
Movable walls/room dividers (sound proof)	$100,000.00	
Whiteboards for classrooms	$20,000.00	
Huddleboards	$12,000.00	
In-floor serge-protected power outlets	$30,000.00	
Instructor computers		
4 PCs	$20,000.00	
4 Macs	$20,000.00	

Item	Total	Group Total
Student computers	$60,000.00	
		$262,000.00
IT Lab		
1 large main room with Macs & PCs		
1 smaller room/classroom with Macs & PCs		
4 tiny rooms for individual & group work		
1 poster printer	$20,000.00	
Computers	$90,000.00	
Computer peripheries	$2,000.00	
		$112,000.00
Digitization equipment		
Flat-bed scanners	$6,000.00	
VCRs	$7,500.00	
Audio cassette players	$9,000.00	
Record players	$1,500.00	
Analog to digital converters	$10,000.00	
Snipers	$5,000.00	
		$39,000.00
Conservation and preservation labs		
Chemical containment systems (range hoods, chemical sinks, etc.)	$25,000.00	
Soundproof glass windows and retractable blinds on one side	$5,000.00	
Shelving	$5,500.00	
Password- or passcode-protected locks on all doors	$10,000.00	
		$45,500.00
Consultants and contractors		
Feng Shui consultant	$10,000.00	
Disability consultant	$10,000.00	
Movers	$5,000.00	
		$25,000.00

Item	Total	Group Total
Administrative expenses		
Travel (airfare, car rental, food)	$150,000.00	
Food for planning meetings	$1,200.00	
		$151,200.00
Other		
Incentives for taking the survey	$300.00	
Misc. expenses	$2,000.00	
		$2,300.00
Total		**$2,000,000.00**

Research Help Center Budget

Item	Amount	Price	Total
Personnel			
Co-directors	2	$19,800	$39,600
Consultants	20	$7,500	$150,000
		Subtotal:	$189,600
Technology			
Computers	5	$2,000	$10,000
Laptop computers	2	$2,500	$5,000
Software			$7,000
Printer/copiers	2	$600	$1,200
Ink cartridges			$500
Accessories			$1,000
		Subtotal:	$24,700
Furniture			
Desks	7	$30	$210
Chairs	15	$35	$525
Tables	2	$35	$70
Sofa	1	$300	$300
Bookcases	2	$25	$50
Filing Cabinet	1	$110	$110
Dry Erase Board	1	$60	$60
		Subtotal:	$1,325
Miscellaneous			
Office Supplies			$1,000
Printing			$300
Signage			$200
Advertising			$1,000
Merchandising			$500
Training			$300
Other			$500
		Subtotal:	$3,800
Total Direct Costs			$219,425
Indirect Costs (F&A Costs, calculated at UT 50% rate)			$109,713
Final Total - Direct & Indirect Costs			$329,138
Costs Subsidized by Other Sources			
School of Information			-$19,800
Office of Undergraduate Studies			-$19,800
UT Library System			-$5,000
		Subtotal	**-$44,600**
Total funds for grant request			$284,538

Gantt chart timeline spanning Oct/2007, Nov/2007, Dec/2007

Case Study 2
- Read over Case Study 2 and start to think about it
- Think about Vision
- Participate in Chat
- Write up Vision
- Write up Case Study 2 from Chat
- Proof Read and flesh out (if needed)
- Post Case Study 2 to BB Assignments — 10/17/07 11:30 PM

Planning Exercise Post
- Write post based on discussion
- Edit Post
- Post to Planning Exercise — 10/24/07 11:30 PM

Strategic Planning Draft
- Create Personas
- Needs Assessment
- Environmental Scan
- Come up with Goals
- Come up with Objectives & Tactical Strategies
- Put together full paper
- Edit Planning Draft
- Post to Assignments — 10/31/07 11:30 PM

Budget Draft
- Figure out items for the budget
- Research budget items and assign them
- Write up budget narrative
- Edit budget
- Post to Assignments — 11/14/07 11:30 PM

Grant Proposal
- Come up with Grant Idea
- Research Money Sources
- Write up Grant
- Create Grant Budget

Final Project Report
- Write Project Background
- Write up team member's roles
- Revise Strategic Planning Document
- Revise Budget
- Write Evaluation Plan
- Write Executive Summary
- Combine into one document and Proof Read
- Post to Assignments with all attachments — 12/12/07 11:30 PM