SPECIAL SECTION

Information Architecture

10] Introduction: Taxarcana and Other Boons for Business
    by Stacy Merrill Surla, Guest Editor of Special Section

11] Exploratory Search in different Information Architectures
    by Tingting Jiang and Sherry Koshman

14] Tagging: Emerging Trends
    by Gene Smith

18] The Information Architecture Behind Good Web Forms
    by Luke Wroblewski

20] Audiences & Artifacts
    by Nathan Curtis

26] How to Be a User Experience Team of One
    by Leah Buley

FEATURE

31] Fulbright Senior Specialist Program – Library Science
    by Emil Levine

DEPARTMENTS

[2] Editor’s Desktop
[3] President’s Page
[5] Inside ASIS&T
    by Margeaux Johnson and Nancy K. Roderer
[33] Column:
    The Student Scene
    Informatics Student Activities at UCLA
    by Sarah Buchanan
The highlight of this issue is our annual special section on information architecture (IA), edited by Stacy Surla, our associate editor for IA. Drawing on material presented at the recent IA Summit in Miami, she has assembled five articles that are informative for all and especially useful for IA practitioners. I think you will find that this collection is exceptionally interesting.

In addition, Emil Levine, a long-time and very active member of ASIS&T, both in the United States and in Europe, advocates participation in the Fulbright Senior Specialist Program and describes his recent engagement under that program at the University of Vilnius Library in Lithuania.

On the ASIS&T front, Margeaux Johnson and Nancy Roderer continue their report on the recent survey (undertaken prior to the implementation of the *JASIST* open-access policy) of ASIS&T members, current *JASIST* authors and researchers in the broader field of information science. Its purpose was to establish a baseline of information about *JASIST* readership and *JASIST* authors and the attitudes of all respondents to open access. This installment discusses responses from ASIS&T members. Nancy Roderer also reviews other Society initiatives on the “President’s Page,” while *Bulletin* Advisory Board Student Member Sarah Buchanan reports on the activities of the UCLA Student Chapter during the 2007-2008 academic year.
I don’t know about others of you in the academic world, but once upon a time I imagined that moving to that sector would give me lovely, quiet summers. Turns out not to be true in medical centers, but in addition to that issue this summer has been an extraordinarily busy time in ASIS&T as well. Your stories about what you are doing should you be so lucky to have a quiet summer would be welcome as vicarious reading. Meanwhile there is much to report:

The publications area has been particularly busy. While you are likely to have heard about our new JASIST editor, Blaise Cronin, by the time this column is published, as I write it is very new information. Blaise, the Rudy Professor of Information Science and the Dean of the School of Library and Information Science at Indiana University, is both a thought leader in our field and a person of considerable editorial service. In his application for the position, he described JASIST in relation to other journals in the field, saying “…JASIST differs in one key respect from all of these competitors and others such as D-Lib Magazine and First Monday: Its scope is information science in-the-round, not one or other of its many sub-fields, be it IR, digital libraries or HCI. This very catholicity differentiates JASIST from most other journals and confers on it a powerful comparative advantage in an otherwise congested arena.” We are indeed fortunate, both to have had such a fine editor in Don Kraft and to have Blaise willing to take over the helm now.

As noted in my last column, at the April Board meeting the Board approved an International Relations Committee proposal to create a Global Alliance of Information Sciences, Technologies and Service Societies. In the words of the proposal, the Alliance will “create a common space in which national and international scholarly and professional societies active in whole or part of the broad field of information sciences, technologies and services will be able to accomplish the following:

- Offer an attractive image to prospective entrants in the information professions
- Facilitate the sharing of public information resources
- Facilitate the identification and implementation of joint activities
- Facilitate for their members exposure to international activities and resources and international networking
- Therefore better respond to the needs of their members with regard to the growing importance of the international dimensions of the field.

This ambitious undertaking will be a long-term project, but we have to begin by sending letters of invitation to a large and varied group of other information-related organizations worldwide.

There has also been excellent progress on my presidential initiative being spearheaded by the Task Force on Information Professionals and carried out in partnership with the Council on Library and Information Resources. We commissioned a data collection and analysis project to obtain background information, and two graduate students at the University of Washington’s I-School, Samantha Becker and Bo Kinney, provided us with a fascinating report describing the existence of about 900 distinct information-related master’s programs spread across 468 institutions. Disciplinary domains in which these programs are located include business, engineering, computer science, information science, applied information science/informatics, biological and health sciences, library science, public administration, communications and education. Sixty percent of the programs have majors or concentrations in at least one of the following categories: information systems, informatics, information technology or information science.

The full report by Becker and Kinney – must reading for anyone interested in information professional education – is available at www.asist.org/news.html. The report is also being made available to the information organizations that will join us at an invitational meeting in September to consider the establishment of a new accreditation process for the range of master’s degree programs that educate information professionals – over 50 invitations have gone out, and responses are flowing in.

These are significant accomplishments in three quite distinct areas, but at the same time they are linked. Each serves a role in sharpening our vision of the very broad field of information science and technology, and each helps in communicating that vision to the world.

Nancy K. Roderer is director of the Welch Medical Library, Johns Hopkins University, and current president of the American Society for Information Science and Technology. She can be reached by email at nroderer<at>jhmi.edu.
JASIS&T Gets New Editor

B laise Cronin, Rudy Professor of Information Science and dean of the School of Library and Information Science at Indiana University, is the new editor-in-chief of the Journal of the American Society for Information Science and Technology (JASIST), effective January 1, 2009. Cronin succeeds Donald Kraft, retired from Louisiana State University, who served as editor since 1985.

Describing his vision of JASIST, Cronin said, “JASIST is the preeminent journal of its kind in the world and the enduring record of our field’s intellectual focus and evolution. Under Don Kraft’s editorship JASIST has flourished, growing in terms of size, number of annual issues and breadth of subject coverage. The institutional, geographic and disciplinary affiliations of contributing authors are more varied than ever, reflecting the internationalizing of interest in information science and also the perceived attractiveness of JASIST as a publication outlet of first, not last, resort.”

“In short,” he continued, “the maturation of our field, both scholastically and professionally, is mirrored in the pages of the journal. The challenge is to maintain a balance between the known and the novel, the canonical and the emergent; the goal is to enlarge the journal’s footprint, prudently and selectively, by connecting more tightly with cognate academic communities where the study of information is also a central intellectual concern.”

In announcing the selection, ASIS&T President Nancy Roderer said, “It is a wonderful indication of the depth and vitality of ASIS&T that we have one Award of Merit Winner as editor followed by another winner of our highest honor. ASIS&T is fortunate indeed to have two such outstanding individuals leading the profession and ASIS&T as information science becomes more and more important.”

Cronin has been editor of the Annual Review of Information Science and Technology since 2002, a role he will continue until a new editor is selected for that important ASIS&T publication.

ASIS&T Reports on Graduate Information Programs and Accreditation

The Information Professionals Task Force of the American Society for Information Science and Technology (ASIS&T) has issued a report reviewing the current status of information professional programs and related accreditation activities. The report, Graduate Information Programs and Accreditation: Landscape Analysis and Survey, is available at http://www.asis.org/news.html.

As stated in the report, “There is a concern that the proliferation of information programs poses a problem of legitimacy, accountability, consistency and quality assurance within the information field.”

This situation led task force chair and ASIS&T President Nancy Roderer to commission Samantha Becker and Bo Kinney, graduate students at the University of Washington’s I-School, to conduct the study with support from the Council on Library and Information Resources (CLIR).

The report includes the following key findings:

- About 900 distinct information-related master’s programs exist across 468 institutions. Some are designated as majors and others as concentrations in a major. A total of 220 distinct majors or concentration areas were found in 500 academic units.

- Slightly more than one third of the programs are located in four core disciplinary domains: engineering, computer science, information science and applied information science/informatics.

- Of the remaining programs, fully half were found within the business domain. Most of the remaining programs are distributed among biological and health sciences, library science, public administration, communications and education.
Sixty percent of the programs have majors or concentrations in at least one of the following categories: information systems, informatics, information technology and information science.

The study’s appendixes provide a directory of master’s information programs and profiles of 19 information school programs, including how each is accredited. In September, ASIS&T and CLIR will cosponsor an invitational meeting of information organizations to discuss the establishment of a new accreditation process for the range of master’s degree programs that educate information professionals. For more on the goals of the Information Professionals Task Force and its efforts, see the ASIS&T Presidential White Paper at www.asist.org/news.html.

Special Interest Group/Social Informatics (SIG/SI) will accept submissions until August 29 for presentations at the 4th annual SIG/SI Research Symposium at the ASIS&T Annual Meeting in Columbus. The symposium will focus on People, Information and Technology: The Social Analysis of Computing. Submissions may include empirical, critical and theoretical work, as well as richly described practice cases and demonstrations. In keeping with the theme of the Annual Meeting, the symposium will feature work that focuses on the relationships of mutual shaping between people and information as mediated by technology.

SIG/USE will accept proposals until August 15 for papers to be presented at the 8th Annual SIG/USE Research Symposium, also to be held at the ASIS&T Annual Meeting. The SIG/USE session will focus on Future Directions: Information Behavior in Design and the Making of Relevant Research. Symposium organizers are interested in short position papers that reflect upon critical questions for information behavior research. Presentations will be in a seminar format emphasizing participant discussion.

SIG/III Announces Contest Winners

Special Interest Group/International Information Issues (SIG/III) has announced the six winners of the 2008 SIG/III International Paper Context, the ninth annual competition for information scientists and practitioners in developing countries. Authors of five of this year’s winners are from India; the sixth represents Pakistan. The winning titles and their authors follow:

1st Place: Use of Social Networks and Information Seeking Behavior of Students during Political Crises in Pakistan, by Maqsood Ahmad Shaheen, Pakistan
2nd Place: Use of Electronic Journals in Astronomy and Astrophysics Libraries and Information Centers in India: A Users’ Perspective, by Neela J. Deshpande and S.K. Pathak, India
3rd Place: Technology and Customer Expectation in Academic Libraries: A Special Reference to Technical/Management Libraries in Karnataka, by Manjunatha K., India
5th Place: Empowering People through Information: A Case Study of India’s Right to Information Act, by Tarig Ashraf, India
6th Place: Information: By the People, For the People, For Development, by Pramila Dangwal, India

Jurors for the 2008 competition were Judy Jeng, chair; Jonathan Levitt, co-chair; Aaron Bowen, Yunfei Du, Julian Warner and Yin Zhang.

Principal authors of the each of the six winning papers receive two-year individual memberships to ASIS&T. In addition, the first place winner receives travel assistance to attend the 2008 ASIS&T Annual Meeting in Columbus.
As the ASIS&T Board of Directors began investigating the feasibility of making the *Journal of the American Society for Information Science and Technology* an open access journal, they and the journal’s current publisher, Wiley-Blackwell, decided to survey current ASIS&T members, current *ASIST* authors and researchers in the broader field of information science about the notion of open access. Through this and future surveys ASIS&T would be able to monitor the effects that an open access policy may have on membership, submissions, access, readership and attitudes towards open access. The survey also had the benefit of allowing the board to gauge demographics, publication trends and attitudes toward open access among current ASIS&T members.

In late 2007, a survey developed jointly by ASIS&T and Wiley-Blackwell was distributed to a randomly selected group of 2,414 ASIS&T members. Additionally 3,740 researchers in the fields of “information science & library science,” “library science” and “information technology and communication systems” were contacted to complete the survey.

We received 581 responses, with 348 (59.9%) from ASIS&T members. This is approximately a 15% response rate by ASIS&T members, and because the survey title concerned scholarly communication, there may have been a greater response from authors. The description of the survey results below makes some comparisons between the responses of ASIS&T members and the overall respondent population, but a more detailed analysis of the general survey results can be found in the last issue of the *Bulletin*. [1]

The survey allowed us to answer four questions about ASIS&T members:
- Who are our members?
- What are the publication trends among ASIS&T members?
- What level of access do ASIS&T members have to journal literature?
- Are our members aware of and/or participating in the open access movement?

**Who Are Our Members?**

Regionally. Not surprisingly, the majority of ASIS&T members that responded to the survey are from North America (84%). While there is a trend in the overall data indicating that an increasing number of non-westerners are researchers in information science, 94.2% of ASIS&T members are from either Europe or North America. There are, however, a small number of ASIS&T members from Asia (2.9%), Australia (0.9%) and the Middle East (0.6%).

Professionally. Nearly 64% of ASIS&T members are affiliated with a college or university. This is slightly lower than the general responses to the survey in which 70% of respondents report working in academic settings. ASIS&T members have a higher rate of employment in commercial organizations (9.5%) than the general survey population (6.7%). Employment by colleges and universities almost certainly has an effect on publication trends, access to journal literature and participation in the open access movement.

Stage of career. When questioned about their amount of research experience, ASIS&T members are either beginning their careers or they are very experienced. The largest number of respondents had 1-5 years of research experience (33%). This was followed by 22.4% of members who had 21+ years of research experience, 15.8% with 6-10 years of experience, 13.8% with 11-15 years of experience and 11.5% with 16-20 years of experience.

Margeaux Johnson is a graduate student in the School of Library and Information Studies at the University of Maryland, College Park, MD. She can be reached by email at margeaux<at>umd.edu

Nancy K. Roderer is director of the Welch Medical Library, Johns Hopkins University, and current president of the American Society for Information Science and Technology. She can be reached by email at nroderer<at>jhmi.edu
What Are the Publication Trends among ASIS&T Members?

Fifty-three per cent of ASIS&T members publish research in peer-reviewed journals. This is lower than the results from the general survey in which 68% of respondents published in peer-reviewed journals. The difference may be due to the higher rate of affiliation with universities and colleges among the general survey respondents. However, publication trends among the ASIS&T members who publish in peer-reviewed journals are almost identical to the trends seen in the general survey.

Members who do publish in scholarly journals consider the same journals when submitting their articles, and they value the same factors when choosing where to publish. The top four journals for both the general survey and the ASIS&T member responses are exactly the same and are ranked in the same order: JASIST; Information Processing & Management; Journal of Documentation; and Library & Information Science Research.

The rest of the list is strikingly similar as well. There are only two differences. ASIS&T members consider ACM journals (ranked 8th out of 10) and the journal Information Research (10th out of 10), whereas the general survey respondents are more likely to consider the Journal of Academic Librarianship (7th out of 10), the Journal of the Medical Library Association and Portal (both tied for 10th).

This similarity is also true of the factors considered when deciding where to publish. ASIS&T members and the general survey respondents consider exactly the same criteria important and rank them in the same order: kind of readership, speed of reviewing, impact factor, standing of editorial board and coverage by abstracting services.

The number of articles published by ASIS&T members in the past three years is also indicative of the general survey response: 63% of members published or co-authored 1-5 articles in the past three years, 22.2% published 6-10 articles and 7.4% published 10+ articles in the past 3 years. This is very similar to the general response in which 61.5% published 1-5 articles in the past three years, 22.8% published 6-10 articles and 12.2 published 10+ articles.

Overall trends in publishing throughout their careers are similar for the two groups – 47.8% of ASIS&T members report publishing 1-10 articles in their career, 36.4% report publishing 21+ articles and 15.8% report publishing 11-20 articles.

As expected, ASIS&T members report publishing 11-20 articles in their career, 36.4% report publishing 21+ articles and 15.8% report publishing 11-20 articles. These responses are consistent with the number of years of research experience reported.

What Level of Access Do ASIS&T Members Have to Journal Literature?

Responses from ASIS&T members show that 76.5% have “good” or “excellent” access to journal literature. The largest group, 44.2%, rates access as “Good: I have access to most journals I need.” This is followed by 32.3% who say their access level is “Excellent: I have access to all the journals I need.” Only 4.4% of members rate their access as “poor” or “very poor.” These results are consistent with the number of years of research experience reported.

Are Our Members Aware of and/or Participating in the Open Access Movement?

Awareness of open access is very high among ASIS&T members. Some 96.3% have heard of open access, and 56.4% reported knowing “a lot” or “quite a lot” about open access. There is a slightly lower rate of publication in open access journals by ASIS&T members (26%) compared to authors from the general survey (29.4%). However, since the overall publication rate among ASIS&T members is also lower, this does not indicate a significant gap in open access publication.

The majority of ASIS&T members have positive attitudes towards the open access movement. When asked to rank how closely they associate certain qualities with the concept of open access, they rank “free to access,” “no hard copy journal” and “high quality” the highest. They do not associate open access with negative stereotypes like “radical,” “ephemeral” or “not archived properly.” All of these negative associations
While many of the general survey responses talk about the author pays to publish model, many of the ASIS&T member responses talk about wanting to maintain access to print journals. Comments like “I still prefer journals that appear in print” are among ASIS&T member’s responses. Overall, however, general enthusiasm and support for open access is typical of both ASIS&T members and the general survey responses. And it was common for ASIS&T members who supported open access to urge ASIS&T to take an active role in supporting this publication model.

Conclusion

For the most part, responses given by the set of ASIS&T members are consistent with the general survey responses.

ASIS&T was able to answer the following four questions about their members, thus establishing a baseline for further survey data after the JASIST open access policy has been in place for a period of time:

Who are our members?

ASIS&T members are based regionally in North America; professionally, they are most often employed by colleges and universities. There are a growing number of new members beginning research careers who have 1-5 years of research experience and a number of very experienced members who have had 21+ years of research experience.

What are the publication trends among ASIS&T members?

ASIS&T members are slightly less likely to publish in peer-reviewed journals than general survey respondents. However, the 53% of ASIS&T members who publish in scholarly journals consider the same journals for publication and value the same factors when deciding where to publish as the respondents to the general survey.

What level of access do ASIS&T members have to journal literature?

The large majority of ASIS&T members, 76.5%, have “good” or “excellent” access to journal literature. Only 4.4% have “poor” or “very poor” access. JASIST readership is much higher among members, as expected, with 93.3% reporting that they read JASIST and 50.6% reporting that they read every issue. Like in the general survey, the most common way to access JASIST is online (68.4%). Even though electronic is the most common way to access the journal, many members report reading their ASIS&T member copy in print (55.2%) and some commented on their preference for the print version of the journal.

Conclusion

For the most part, responses given by the set of ASIS&T members are consistent with the general survey responses.

ASIS&T was able to answer the following four questions about their members, thus establishing a baseline for further survey data after the JASIST open access policy has been in place for a period of time:

Who are our members?

ASIS&T members are based regionally in North America; professionally, they are most often employed by colleges and universities. There are a growing number of new members beginning research careers who have 1-5 years of research experience and a number of very experienced members who have had 21+ years of research experience.

What are the publication trends among ASIS&T members?

ASIS&T members are slightly less likely to publish in peer-reviewed journals than general survey respondents. However, the 53% of ASIS&T members who publish in scholarly journals consider the same journals for publication and value the same factors when deciding where to publish as the respondents to the general survey.

What level of access do ASIS&T members have to journal literature?

The large majority of ASIS&T members, 76.5%, have “good” or “excellent” access to journal literature. Only 4.4% have “poor” or “very poor” access. JASIST readership is much higher among members, as expected, with 93.3% reporting that they read JASIST and 50.6% reporting that they read every issue. Like in the general survey, the most common way to access JASIST is online (68.4%). Even though electronic is the most common way to access the journal, many members report reading their ASIS&T member copy in print (55.2%) and some commented on their preference for the print version of the journal.

Are our members aware of and/or participating in the open access movement?

Some 96.3% of ASIS&T members are aware of open access and 26% are publishing in open access publications already. Strong support exists among members for ASIS&T taking a leadership role in the open access movement.
Business is increasingly recognizing the importance of bringing taxonomy and user experience together in projects where (strangely) they might not normally meet. Over the years the IA column has included a fair share of articles treating search, controlled vocabulary building, search engine optimization and associated topics. ASIS&T’s Information Architecture Summit (www.iasummit.org) this March hosted numerous presentations and workshops representing the latest taxonomy-related thought and work. From among those presentations we bring you two articles that exemplify the current trends, an understanding of which should make it a bit easier to talk taxonomy in the business setting.

Tingting Jiang’s and Sherry Koshman’s “Exploratory Search in Different Information Architectures” offers cogent observations about exploratory search and better user experience. The authors describe how each of the four major search-result grouping structures calls for a different IA approach. That tagging is one of these four primary organizing strategies reflects a happy shift in present thinking about the role of folksonomy in categorization systems.

This article pairs nicely with Gene Smith’s “Tagging: Emerging Trends.” His thoughtful and practical article describes how top-down hierarchies and bottom-up user-contributed classification are being structured to work together to achieve a powerful new approach.

The IA Summit program this year was filled with engaging, inspiring sessions for IA consultants. For instance, nearly every web design engagement includes an opportunity to redesign web forms. Luke Wroblewski’s “The Information Architecture Behind Good Web Forms” outlines a straightforward and highly effective approach for coming up with forms that actually work. Nathan Curtis’ “Audiences & Artifacts” takes a step back and considers design documentation from a business point of view. He offers priceless advice on designing deliverables that are both efficient to create and communicate effectively to our varied business audiences.

Leah Buley’s “How to Be a User Experience Team of One” was so popular at the IA Summit that she had to deliver it a second time. Part article and part graphic novel, hers is that perfect blend of philosophy and applicability that IAs love so well.

I would like to thank all our contributors and hope that their insight and creativity will be an inspiration for all of us.
Exploratory Search in Different Information Architectures
by Tingting Jiang and Sherry Koshman

The ASIS&T 2008 IA Summit, *Experiencing Information*, emphasized users who want to know, do or share something. A user experiences information by creating, organizing, browsing and searching for information. These actions contribute to the notion of exploratory search that can be described as an information process in which the importance of a search system’s query-document matching power is diminished in favor of the user assuming a more assertive role in making decisions about the search results and the next steps toward fulfilling their information needs [1]. A straightforward and common way to distinguish an exploratory search system is to examine the presentation of search results. Typically some browsing facilities to supplement or replace the popular list-based result pages are introduced and they feature grouping as a primary mechanism for search result display.

In a less dense space with information organized into perceptible groups, users are able to more easily detect and concentrate on the most relevant information for each search session in order to determine the direction of the next search step. In studying this concept further, we investigate the information architectures of current exploratory search systems and identify four primary organizing strategies to assist users in searching and browsing information. They are hierarchical classification, faceted categorization, clustering and social tagging.

Hierarchical Classification
Hierarchical classification refers to a system of fixed classes organized in a hierarchical enumerative structure, offering a structural representation of a vocabulary that is typically applied to formal and stable resources. This structure is a familiar one found in many formal classification systems. An online example, CitiViz (http://feathers.dlib.vt.edu/CitiViz/index.html), a visual search project for computing literature, is a case in point [2]. Each search result does not appear individually; it appears under the classification(s) that it belongs to and together with other related results. Only the classifications that contain search results will be included for each query. It is effective in reducing the considerable volume of results to a small number of groups that are rational and familiar to us, greatly lessening the burden of browsing. Specifically in CitiViz, users are allowed to manipulate the classifications by deleting unwanted headings.

As we all know, it requires a high investment in time, money and expertise to create non-overlapping classes and arrange them hierarchically, thus not many domains can afford a well-built comprehensive hierarchical classification system. Even if it is affordable, not every field can be properly reduced to a few classes with clear edges. Once established, the system will become the authority and it may not be responsive to changes. As a result, for certain information domains, such as user-contributed content, such classification hardly applies at all since old vocabularies wither and new ones grow at such a fast pace.
Faceted Categorization

Faceted categorization, for the purpose of exploratory search, represents different attributes of an information collection by offering small categorical hierarchies that correspond to concepts contained within the repository [3]. The subject-oriented ACM classification discussed above cannot satisfy users who want to explore the literature by author, year or method. By taking multiple facets into consideration, faceted categorization better manifests the fact that different people understand the world differently.

Faceted categories have become a standard information architecture that is readily implemented across many sites, especially online shopping sites. For instance, in finding a PC laptop on eBay, users are enabled to constrain their search by brand, processor speed, memory, hard drive capacity, screen size and condition. The interface is flexible because information can be retrieved along any number of facets in any order. In addition, faceted hierarchical categories need much less manual work to develop, compared to one large classification system.

Clustering

Clustering has become a popular technique of grouping search results. For each query, the clustering algorithm will generate a unique taxonomy of the search results based on their content. Result items are assigned to clusters in the taxonomy right after they are retrieved and before presented to the searcher [4]. The clustering approach appeals to many information providers in comparison to hierarchical classification and faceted categories. Most importantly, everything is done automatically. Secondly, a dynamic taxonomy with clusters generated in real time eliminates the complexity and cost of building and maintaining fixed.

Depending on the algorithm, the taxonomy may have only one level or multiple levels. And as the algorithms evolve, there could be multiple taxonomies created for each query from different aspects. WebClust in Figure 1a is one of the few search engines adopting the simplest form, that is, one taxonomy and one level. Carrot2 is a little more complex, with three facets (topics/sources/sites) introduced and a one-level taxonomy for each one (Figure 1b). Including the same facets, Clusty in Figure 1c offers hierarchies that can be expanded to an unpredictable number of levels. Unfortunately, the disadvantages of clustering such as the mislabeling, misplacing or overlapping of clusters within the taxonomy are sometimes evident. The robustness of a cluster-based post-retrieval taxonomy is defeated by the previously discussed pre-determined architectures.

Social Tagging

Tagging refers to individual users assigning meaning to online objects, including bookmarks, texts, images and videos, in the form of tags or keywords or metadata. Users can be resource providers or consumers or both. The social nature of tagging emphasizes that tags are not only personal labels used for categorizing individual collections, but also serve as public clues for others to reach personal collections. Folksonomies result from this bottom-up social tagging process and are distributed classification systems that can be exactly described as a flat name space without rigid hierarchies or exclusive categories [5]. Today, almost all the social tagging systems are relying on tag clouds to represent a folksonomy. Tag clouds
usually display tags in alphabetical order with little attention to term relationships (Figure 2).

It demonstrates a very loose structure, with only font size implying the use frequency of the alphabetically ordered tags.

The advantages and disadvantages of folksonomies are usually compared with the other taxonomies mentioned above. The self-driven tagging activities produce two benefits: the inexpensiveness in terms of creation cost and the responsiveness to changes [6]. Furthermore, a democratic folksonomy gives everyone the opportunity to express his or her personal viewpoints through tags and welcomes distinct or even contrary ones to co-exist. The other side of the coin, however, is that liberal and distributed tagging by everyone will lead to the “vocabulary problem” as well as the “basic level” problem [7] [8].

Conclusion

Exploratory search systems, compared to current mainstream web search engines, reflect more carefully on the presentation of search results, a critical factor that determines search effectiveness. Realizing the insufficiency of the linear list of ranked results for sophisticated exploratory tasks, they are devoted to satisfying users’ information needs by enabling grouping of results. The four major grouping strategies at present, which constitute this discussion, are hierarchical classification, faceted categorization, clustering and social tagging. They give birth to four different information architectures and each of them bears advantages and disadvantages. In our plan for future research, an in-depth comparison of these architectures is an important step forward that will not only measure the effectiveness of each one in its applicable information domain, but also seek possible solutions to offset their weaknesses.

Resources Mentioned in the Article


Tagging: Emerging Trends
by Gene Smith

Last year there were a handful of popular blog posts about how tagging had gone stale. The initial rush of excitement over tagging, created by social bookmarking site Del.icio.us [1] and photo-sharing Flickr [2], had given way to a kind of malaise.

Tagging became popular in 2003 when, along with open APIs and user-generated content, the Web 2.0 phenomenon captured the attention of web designers, developers, information architects and entrepreneurs. Interest in tagging was stoked by pundits like Clay Shirky, David Weinberger and Tim O’Reilly. They celebrated its openness, its scalability and its responsiveness to the needs of real users.

But by 2007 a number of people noticed that tagging seemed to be stuck. In the blog post that started this conversation, Matt Mower wrote [3] the following:

“I have been surprised, disappointed and excited that, despite the widespread adoption of tagging across many applications, the state of the art in tagging seems firmly wedged in 2003…

“Tagging in 2007 seems to have advanced no further than a means by which one or more users of a site (or application) can group content around a loose framework of concepts.”

Just as this conversation was happening, I was in the middle of writing a book on tagging. I had made a point of reviewing the academic research as well as taking a detailed look at the tagging systems being built by entrepreneurs, Web 2.0 startups and established software companies.

And what I found could hardly be called stale.

There had been significant innovation in tagging over the past few years. But it wasn’t happening at Flickr or Del.icio.us – their tagging systems hadn’t changed much since 2005.

Still, because they were so popular and because their data was used for much of the academic research on tagging, Flickr and Del.icio.us had come to represent all tagging systems. And while they’re still excellent examples of large-scale popular tagging systems, they’re no longer the beau ideal when it comes to tagging.

In this article I’ll discuss four trends that point toward tagging’s future.

1. **More structure.** Uncontrolled vocabularies are being replaced by tagging systems that understand the difference between Polish and polish.

2. **Automanual folksonomies.** Some tagging systems combine algorithmic and manual approaches, closing the gap between what we might call traditional information structures and the emergent structure of Flickr and Del.icio.us.

3. **Leveraging communities.** Some systems have their users help reduce the noise and eliminate meaningless duplication in their tags.

4. **User-generated innovation.** Tags have developed into a cheap and easy way for people to innovate on top of a web application.

These trends aren’t discrete and standalone. Designers are combining them to create unique applications unlike simple, open systems we’ve known.

More Structure

In the first wave of folksonomies, people saw the flexibility and openness of tagging as an advantage. You might recall that what followed the popularity of tagging was a wave of criticism of more traditional information structures.

Taxonomies and controlled vocabularies were drubbed for being too restrictive, too slow to adapt and inefficient. Worse, they imposed a particular
world view on their users. Clay Shirky, for example, noted that there are important differences between some apparently synonymous terms [4]:

Even closely related terms like movies, films, flicks and cinema cannot be trivially collapsed into a single word without loss of meaning and of social context. (You’d rather have a Drain-O® colonic than spend an evening with people who care about cinema.)

In other words, if you treat movies and cinema as synonyms you’re ignoring what we might call their sociosemantic differences.

The great thing about tagging is that it allows – even enables – these kinds of differences. There is no right or wrong way to tag a bookmark or photo. In a tagging system the movie people don’t need to meet the cinema people.

This isn’t the first time these criticisms have surfaced. Cory Doctorow in his popular 2001 essay “Metacrap” said that taxonomies “denuded the cognitive landscape”[5]. Early tagging systems were pretty well aligned with these kinds of libertarian ideas. But in the last few years innovative tagging systems have emerged that introduce more structure without sacrificing many of the features, like openness or sociality, that make tagging valuable.

There are certainly dozens of consumer web applications that use some form of structured tagging. Three examples will demonstrate the diversity of innovation in this area:

- Zigtag [6] is a social bookmarking service that maps tags to concepts, letting you distinguish between “apple” the fruit and “Apple” the computer manufacturer when you tag. Zigtag built its database of concepts, which has millions of entries, by mining publicly available data sources.

- Wesabe [7], a personal finance planner, imports your banking records to help you understand how and where you spend your money. Tags are your primary tools for organizing your transactions in Wesabe. The service makes tagging your bank statements significantly less tedious through “sticky tags,” tags that are attached to a merchant for every future transaction you have with them.

- Buzzillions [8] is a product reviews site that integrates tags, facets and taxonomies in a seamless way. Normally product reviews are unstructured text, and they’re great for helping you decide if you should buy product. Buzzillions use tags instead of unstructured text for its reviews, which lets them use the reviews themselves as kind of filter-and-find navigation.

Most interesting of all, these aren’t experimental systems or tech demos. They are real products, suggesting that there’s a market demand for structured tagging.

Leveraging Communities

Tagging isn’t usually an explicitly collaborative activity. In most cases users don’t discuss or negotiate which tag to apply to a webpage or bookmark the way they might discuss the contents of a Wikipedia article.

But when we look at Del.icio.us, as an example, we can see the outlines of a community. There are shared interests expressed through the tag cloud – Linux, JavaScript, design, Google, web2.0, travel.

And in at least one case – LibraryThing [9] – users are collaborating to help improve their tag collections. LibraryThing is a social cataloging application that lets you add and tag books from your personal library. It then helps you find other books you might like and people who have similar collections.

Tags are one of the primary ways LibraryThing users catalog the 25 million books they have added to the system. LibraryThing’s problem – one shared by any system with a sufficiently large set of tags – is that there are many tags that say essentially the same thing.

The situation isn’t like Shirky’s example of movies and cinema. We’re talking about cases like “WWII” and “World War 2,” or “science fiction” and “sf.” That is, cases where the sociosemantic delta is zero.

So LibraryThing has added a clever community-driven controlled vocabulary for their tags. Users can make any two tags equivalent, and when they’re equivalent the more popular tag becomes the preferred term. LibraryThing also keeps a history of which tag equivalencies have been
made. Any tag equivalency can be easily unmade by any LibraryThing member. Tag equivalencies are subject to community negotiation in much the same way as an article on Wikipedia.

LibraryThing’s founders guide this process through a simple philosophy – only combine tags that are virtually identical in meaning. But even this allows for significant reduction in noise; for example dozens of variations on “world war 2” have been collapsed into a single preferred tag “wwii.”

The community can also decide when two tags that are seemingly identical contain those important sociosemantic differences. Take *humor* and *humour* as an example. The American spelling is more often used with American authors and American-style of humor. The British spelling is more often associated with the dry, British-style humour. But there is some overlap – Douglas Adams’s books are tagged with both versions of *humor*.

Through this fairly simple approach, LibraryThing users eliminate meaningless duplication of tags and create a bottom-up community-driven controlled vocabulary.

**Automanual Folksonomies**

Other websites mix a little bit of top-down structure with their bottom-up tags, creating an “automanual” folksonomy. They work well in situations where some aspects of tagging are desirable – open-ended and social – while others are not – like its unpredictability.

Consider Etsy [10], a marketplace for hand-made goods – kind of like eBay for knitters, crafters and other folks who make one-of-a-kind items. Etsy uses an automanual approach to create part of its site navigation. Etsy asks sellers to choose from a set of pre-defined tags for each item they sell. They then provide suggestions for each additional tag. Sellers can pick from the suggested tags or enter their own.

Etsy’s pre-defined tags form the top-level category navigation on the website. The suggested tags are actually sub-categories for each of the main categories. While users are nudged toward these suggested tags, they can still enter their own tags. Through this approach, Etsy creates a fairly stable navigation system that remains responsive to the needs of users.

LibraryThing has also created an automanual system called TagMash. TagMash is a kind of search where you combine tags to create a list of matching books. TagMash has a simple weighting feature that lets you de-emphasize or negate a tag from your query. If you like books about World War II set in France, but only fiction, you can create a TagMash to find all the books with those tags. (You also get the benefit of the tag equivalencies that LibraryThing users have created.)

The folks at LibraryThing have also experimented with using TagMash to emulate the Library of Congress Subject Headings and the subject taxonomy used by bookstores like Amazon.

Mapping a TagMash to a taxonomy branch or subject heading creates an evergreen listing of books for a category – as long as people keep adding tags to books. This is, in effect, a very cheap maintenance system for a classification system. It probably won’t produce the same levels of accuracy and consistency as a professional cataloguer, but it leverages a community of interest to achieve similar results.

Peter Van Dijck, an information architect who has experimented with automanual techniques, said this about mixed bottom-up tagging with top-down structure:

> “I notice a hesitance toward hard-coded semantics and manual work – people think these things won’t scale. I learned to mix it up... a small amount semantics on top of minimal structure can work wonders.” [Personal communication, August 10, 2007]

The success of LibraryThing and Etsy suggest that this could be a fruitful technique for information architects who want the benefits of tagging but can’t cede control entirely to their users.

**User-Generated Innovation**

So far this article has focused on tags as part of an organizational system. And in fact this focus is typical of the discussions on tagging that have happened over the last few years.

But there’s another side to tagging that’s important to appreciate: tags are one easy way for people to hack, mash-up and innovate on top of a web service or application.
Let’s consider Flickr as an example. Flickr lets you add any text string as a tag, and it creates an RSS feed for every tag entered in the system. So if you tag a photo as “obstreperous,” you’ll find an RSS feed for everything tagged “obstreperous” and your photo will be in that feed.

This is, in effect, a very simple read/write system for metadata. Even though it’s quite primitive, it lets users experiment with new features and services. Flickr’s geotagging feature emerged from this kind of experimentation. One active Flickr user, Dan Catt, came up with a simple method for placing photos onto a Google map. He started with a marker tag – “geotagged.” This created an RSS feed for every geotagged photo. Then he added two machine tags for the latitude and longitude coordinates. (Machine tags are special tags that take the form “namespace:key=value” and they can be used to encode just about any sort of metadata in a tag[11].) He was able to find all the “geotagged” photos using the RSS feed and then parse out the values of the machine tags to place them on a map.

Initially, people had to geotag their photos manually. They would enter the marker tag, look up the latitude and longitude coordinates of their photos and then enter that data as machine tags. But this was enough of a system that Flickr’s emerging geotagging community could build basic tools to display the photos. Later, people created interfaces to make geotagging photos a lot easier.

Flickr eventually hired Dan Catt and now supports geotags natively. They developed a better interface for geotagging photos, as well as a machine tag search feature into their API.

What makes this story of tag-enabled innovation remarkable is that it’s not unique. Other systems that use the same architecture – one where a data feed of tagged objects is available for every single tag – have seen similar innovation. Connotea[12], a social bookmarking application for scientists, IBM’s internal social bookmarking engine Dogear and Del.icio.us have all had applications, mash-ups and experiments built off their tags and feeds combination.

This is an interesting dimension of tagging that’s usually subordinate to classification and information structure. But it’s important because it suggests tagging’s value is partly in how it allows people to interact with information – both tags and the thing that’s being tagged – and to change their information environment to better fit their needs.

**Conclusion**

These four trends show that tagging continues to evolve. Now that hype around tagging is muted, designers, developers and product managers are using tags to solve their problems, improve their products and help their customers.

For long-time information architects, these new approaches may seem unusual. They directly rely on user contributions, they leverage active communities, and they freely mix top-down structure with bottom-up innovation. They point to a future where information architects work at the edges, managing the emerging properties of folksonomies alongside the semantic relationships of taxonomies and controlled vocabularies.

But these trends are also great news for the discipline of information architecture. Three years ago some pundits suggested that folksonomies might replace IA altogether. Today we’re seeing tags, taxonomies and facets intermingling to create new and valuable information structures. Most importantly, we’re seeing tags being used to solve the classic problems of IA – helping people find and use information, making meaning from the tangle of language and reducing the cognitive and economic costs of ambiguity.

**Resources Mentioned in the Article**

[11] For more about machine tags see www.flickr.com/groups/api/discuss/721575944
The Information Architecture Behind Good Web Forms
by Luke Wroblewski

During a recent interview, I was asked to distill the hundreds of web form design best practices I had been researching and documenting into my “top three tips for designing good forms.” It wasn’t until a few days later that I began to realize what all three of my recommendations had in common. They were all information architecture challenges.

While others may see things differently, for me information architecture challenges require extensive thinking about the structure and flow of information, which include information flow into and out of software applications. So it’s not hard to see how forms fit into the mix and why I honed in on the relationship of information architecture to these tips.

Tip 1: Design the Questions You Are Asking
When designing or developing web forms, people are often quick to take the questions within an existing paper form, desktop software solution or requirements document and simply translate them into labels and input fields on a web page. This translation is how most web forms are “designed.” Much less common is the process of taking a hard look at the questions a form is asking and pruning what is not required or can be deferred until later.

Every question asked by a form requires someone to parse it, formulate an answer and then enter their answer into the affordance provided by an input field. Anytime you can remove or defer a question, this process is avoided and people can make their way through forms faster and with less effort. As a result, judiciously culling the questions being asked can reduce form completion times and increase completion rates.

Tip 2: Design a Clear Path to Completion
It is one thing to understand what set of information will get people to their goals; it is another to organize it in a way that illuminates a clear path to completion. Because people want what’s on the other side of a web form, their general tendency is to jump right in, start answering questions and hope to get done quickly.

As a result, forms need to be organized in a way that makes it abundantly clear how they can be completed. At first glance, people should be able to understand what they need to do and how. Forms that scatter questions around the page and don’t provide a logical ordering between information requests impede people’s ability to quickly formulate answers as they progress through a form.

Messaging without proper priority, like hard-to-find error messages, and unconnected primary actions can similarly cloud the steps people need to take in order to get through a form. These issues and several more are...
present in the form by Nintendo shown in Figure 1, which features a mix of random visual emphasis, poor affordances and a form sandwiched between excessive legalese.

Illuminating a clear path to completion is an information architecture challenge because it requires us to structure information requests in a way that makes it abundantly clear how they can be completed; in other words, we must tee up questions in a logical pattern from start to finish.

**Tip 3: Design Engagement, Not Forms**

Getting people through a form is just one way to gather information. On the web, however, forms are often the de facto choice for data requests. But it doesn’t have to be this way. Instead of throwing a web form in front of people every time we need some information, we can turn instead to the principles behind gradual engagement.

Gradual engagement allows us to gather information from people in a way that gets them involved in our web applications. If done right, gradual engagement can also educate people on the benefits and features our applications provide.

Take for example Tripit, illustrated in Figure 2. This application for managing your travel plans by using your travel confirmation emails could easily have asked all new members to sign up through a registration form. Instead, to join the service new members simply have to send Tripit a travel confirmation email. From this email, Tripit creates an account and extracts the information it needs to create a rich travel plan for new members. No form required. People sign up for Tripit by using it and learning what the application can do for them.

**FIGURE 2. Tripit confirmation email**

Gradual engagement is an information architecture challenge because it requires us to think about the core essence of an application and develop a process that introduces it to people while gathering the information the service needs to be useful along the way. This sequencing of information requests as interactions has the potential to create more rewarding and memorable first time experiences for web applications.

**Conclusion**

By providing a way for designing the questions we are asking, clear paths to completion and gradual engagement processes, information architecture can go a long way toward making web forms more efficient and enjoyable. No wonder there’s a lot of IA behind great web forms.

Years ago, Jakob Nielsen introduced us to the notion that users don’t read on the web (www.useit.com/alertbox/9710a.html). They still don’t.

At EightShapes, we spend much time talking with clients about their user experience documentation practices and the role that artifacts play in the design process. What did we find?

People don’t read deliverables either.

The truth is that consumers of your documentation scan deliverables. They’ll refer to deliverables; they’ll look for those nuggets of information they can use to complete their own work. Bottom line? They don’t read deliverables, but most of the time they try to use them.

Therefore, we’re constantly inspired, driven, even forced to improve our design communications to be more effectively usable and efficiently produced, much like how we approach user-centered design itself. Where should we start? This article considers the artifacts we produce, who we produce them for and some techniques we can perform to improve our design communications.

The Audiences and Artifacts

In user experience design and, more specifically, activities for information architecture and interaction design, we communicate design solutions to audiences that include executives, product managers, site strategists, visual designers, design technologists (HTML/CSS/JS), developers, quality assurance specialists (QA), copywriters, publishers and – don’t forget – ourselves. Artifacts include strategy documents, concept models, maps, flows, storyboards, wireframes (basic to annotated to detailed specs), mockups, style guides and more. In fact, this artifact list is just the tip of the iceberg (for more details on key artifacts for information architects, refer to Dan Brown’s “Communicating Design”).

At a high level, different audiences respond to and inform different artifacts in different ways. Executives and product managers talk business objectives and high-level requirements and may be more responsive to strategic discussions, storyboards and (unfortunately given the effort to create them) high-grade mockups that present the experience concretely. On the other hand, visual designers, developers and QA often prefer rich, annotated wireframes and specifications to complete their own work in sync with the detailed behaviors and structures we create.

The following diagram represents an interpretive heat map of document relevance across audiences and artifacts based on our research thus far. While not objectively quantitative, the table enables us to think and discuss the rationale for utilizing specific artifacts to communicate in specific ways to specific audiences (Figure 1).

Nathan Curtis is a founder and principal at EightShapes, LLC, a UX consulting firm based in Washington, DC, and blogs on design and documentation at www.nathancurtis.com.
Here, a threshold emerges: a level of detail beyond which some audiences may not respond, but which other audiences may demand. Commonly, this threshold begins with anything beyond light annotations on wireframes. With such a threshold in mind, we could consider communicating via different, targeted deliverables for two (or more) segments of our audience base (Figure 2). Sure, the mockup problem persists, but by educating our stakeholders on the value and role of different artifacts, we can minimize the impacts of such issues.

Clearly, not all artifacts are for everyone. In numerous surveys across audiences in different organizations, there are clear distinctions between the value placed on different artifacts by information architects and the population to which they communicate. Sure, most often both IAs and their audiences find significant value in wireframes. However, what about other artifacts? IAs use concept models as a mechanism to clarify objects and relationships within a design solution; however, most audiences require non-trivial education about the role and value of concept models and how they differ from other familiar artifacts like site maps. Even with that, the perceived value of concept models is much higher to IAs than other individuals.

On the flip side, consider change histories, which are records of how a deliverable evolves. Such a history can be very valuable to consumers like developers, visual designers and QA. Trouble is, IAs don’t place as much value on them since all that information is in their heads, so why record it? Therefore, change histories most often end up being poorly recorded, with pithy comments like “Wireframes updated” if anything at all, leaving others in the lurch and dependent on verbal communications.

And site maps? Surprisingly, consumers who are not IAs often described to us a significant desire to understand the site structure via an artifact akin to a site map (if not visual, still an organized and coded list or spreadsheet). With that, other teams can plan and execute their work using a common language and organization. Most admit looking to the information architect to set that tone. Sure, some of us still produce site maps, but they are seen less often these days and not structured enough with categories, numbered references and other techniques to serve as a foundation for remaining project work across disciplines.

**Deliverable Life Cycle**

As a deliverable evolves, it typically moves through a series of stages before converging on a final version with a stable and mature structure. Ideally, artifacts are instantiated from some template, with starter content sourced from other existing deliverables. That said, over time the deliverable matures along with the design itself from conceptual presentations and strategies to additional variations to more and more detailed annotations.

Through this life cycle, many factors can disrupt or shift the direction of the artifact’s growth. Design iteration can cause large chunks of the design to change – along with any documentation of those chunks already produced. Descoping can result in areas of a design being completely removed from a project. Should this documentation be thrown away completely, just removed from this deliverable or sustained with descoped markers? Executive input can shift significant design progress in completely new directions. Should the documentation have been exposed to such an audience, and what do we do with it now?

Also, the artifact’s audience base commonly grows over time from a
narrow team of a few individuals to across an organization. Is your document maturing to address those audiences? And depending on your workflow and organizational structure, does your artifact clarify the design enough so that those audience members you communicate with directly can represent the work to the individuals you actually never meet or talk to?

Such considerations are critical for the composition and maintenance of a successful design artifact. What can we do to address this need? The remainder of this article touches on specific topics and suggestions to stimulate your creativity and improve your design communications.

Be Structured

Let’s start with the document’s foundation (Figure 3). Many design meetings begin with discussions like “Ok, is everyone ready? Is everyone looking at eCommerce.Wireframes.1.9.pdf?” Creating a platform for structured discussion around an artifact is therefore critical. Document metadata gives us the opportunity to do that, resulting in precise and unambiguous discussions based on specific and easy to understand structures and references within our design documents.

Document structure starts with information suitable for presentation across all pages via header, including document title, organization (typically via logo), author, author contact information (usually email address), version number, publication date, page number and overall number of pages. Interestingly, our deliverable review activities across many clients reveal that very few documents produced include standardized page headers including all these attributes. The result? Confused consumers leaf through printed or electronic documents without a sense of place, suffering without key signposts and information to guide them through the basics. One would think we’re beyond such trivial inadequacies of our design artifacts, but research proves otherwise.

With standard wayfinding resolved, designers can begin to layer additional structures into an artifact. Depending on your tool, produce a table of contents and other reference lists in an automated way using styles or other techniques so that you can set the tone at the outset of a review and create a baseline for future usage. Utilize numbering systems to organize items within chapters, properties of a page or component, and other types of requirements, ideally through automated paragraph styles and systems. And record the evolution of a design over time via change histories, both summarized via generalized lists or tables as well as integrated into specific annotations via colored highlights and additional content. Other opportunities to add context to your artifact include lists of reviewers, tracking open questions about the design, a glossary for project-specific concepts and/or jargon and more.

Be Focused

One implicit weakness of most deliverables is that they try to be everything to everyone. Designers may describe problem statements, personas, business objectives, data formats, editorial guidelines and behavior specs all on the same page. Even worse, such descriptions may end up intermingled without a coherent structure that facilitates scanning, retrieval and understanding. Sure, you’ve included the content that each audience needs, but each consumer ends up seeing a jumbled mess from which they must search and identify nuggets that are important to them.

Our research shows that, more often than not, each audience selfishly wants to see what they care about without so much other clutter. The eyes of product owners may glaze at the sight of detailed states and variations. Quality assurance may feign interest in personas, but when probed further, admit such documentation contributes little to structuring their test case.

To address this factor, consider moving away from a “one-size-fits-all” composition strategy and create 2+ artifacts tailored to specific audiences.
If you are authoring artifacts from a single file (such as produced by Visio), you can utilize layers to show and hide various annotation attributes when printing the document or exporting to PDF to share with others.

On the other hand, you could consider modularizing your artifacts into numerous, reusable chunks of artwork and annotation. Using linked files in a product like Adobe InDesign CS3, you can reuse wireframe or mockup page and component artwork repeatedly in multiple deliverables and flows while managing changes and evolution from the same files. That way you can create one deliverable PDF for product owners and executives that covers the highlights and strategy, while producing a design specification PDF with more variations and details for developers and QA, but both from the same linked artwork stored modularly apart from either deliverable.

**Be Predictable**

Since deliverable audiences will learn and adapt to your document structure within and across projects, it is important to create learnable, consistent page structures. One technique we’ve employed over the past year is the application of page patterns to pages within our deliverables. In short, a page pattern is a combination of predefined shapes and text placeholders in a layout that enables a design to place artwork and compose annotations. Such page patterns are akin to our user interaction design patterns, in that they provide a consistent yet flexible solution starting point for common deliverable problems such as varied techniques for annotating a wireframe, flow, storyboard or other typical presentation.

For example, suppose you were introducing a wireframe and chunking the page into segments that you intend to annotate later in the document. Then you could utilize the “Wireframe (Intro & Chunked)” page pattern that includes (a) a frame for the wireframe artwork, (b) a descriptive intro paragraph that you can type over, (c) a list of components where you can name the chunks and (d) markers so that you can connect that list with highlighted areas on the wireframe artwork.

In effect, these objects and placeholder text areas prevent you from having to reinvent the wheel every time you want to introduce a wireframe and also result in a pattern your audience can quickly recognize and understand. Better yet, you can organize these page patterns into a library and share them with teammates. Such patterns can run the gamut of your deliverable landscape, from capturing requirements and conveying project strategy to preparing research reports like a competitive analysis to annotating wireframes and visual design artifacts. Once organized, you can create a foundation where resource can easily retrieve and apply those patterns in their own deliverables.

**Be Prepared**

The response to the question: “How do you get started on a new deliverable?” is almost always: “I open a previous deliverable, erase irrelevant content and jump right in.” As designers, our instinct is to solve a design problem, not think about how we’re going to document that solution. We start by throwing visuals and annotations into a document without considering the long-range goals or life cycle of the document over weeks or even months.
Document “recipes” (Figure 5) afford us the opportunities to consider and plan a deliverable from the outset. By talking about documents in terms of recipes, designers can discuss a document’s purpose, audience and process of production. Such a process addresses what gets added – the ingredients (through the language of page patterns) – and how those ingredients may change over time.

You can concoct a recipe via a casual five-minute conversation or a deeper, more formalized planning session that includes numerous document consumers. The discussion enables individuals or groups to clarify the direction of a deliverable through exercises akin to outlining, chunking out segments and even assigning responsibilities for composition across teammates. And with a page pattern library as a baseline for common understanding and vocabulary, designers can quickly describe the tone, level of detail and breadth of coverage across a document.

Additionally, larger teams can use recipes to standardize expectations for documents produced frequently by numerous resources. For example, a team can structure a competitive analysis to have an executive summary, table of contents and then chapters for approach and strategy, annotated examples and findings and recommendations. Such a recipe could be described in a single page with an introduction, document outline (via page patterns) and process in which the content is authored. Later, the designer can use the recipe to quickly produce an effective design communication that meets team expectations.

Be Investigative

When designing, don’t you always try to include the voice of your consumer? You can apply user research techniques to your deliverable design too.

Recruit the participants, write the test plan, reserve the testing facility and... well... perhaps not. We need not put our developers and quality assurance professionals in a usability lab to determine if our artifacts are usable. But we can apply simple and quick techniques to get valuable feedback on our design communications. Without a doubt, my greatest improvements in design communications have come from asking questions of my artifact’s consumers. Here are some ideas for getting that feedback:

- **Plan** the deliverable collaboratively with your audience from the outset, insuring what you’ll produce meets their needs
- **Sit down beside artifact consumers and test** the deliverable informally. Learn if your audience can use it without you reading it to them, line by line. For example, if you’ve annotated a behavior, ask them if they can find, understand and explain the requirement without leading their answers.
- **Iterate** and improve your deliverable based on feedback during design reviews, proving to your audience that you are listening.

Be Mechanized

For much of our user experience design work, our design concepts arise within the broader context of a defined or burgeoning design system of grids, styles and – ultimately – broad collections of structured components that can be reused across pages, sections and projects. Each component is a page’s chunk, with variations accommodating different states and scenarios and intentionally allowing specific page location(s), usage criteria and design objectives.
Large user experience design teams go to varying lengths to codify a component library for extensive reuse across user experience resources and throughout the development process. Therefore, our documentation systems, such as templates and libraries built within a tool like Adobe InDesign or Microsoft Visio, will include libraries of predefined, classified component artwork. Such components can be applied to create wireframes a million times over without ever creating the same wireframe twice, all within that recognized system.

As wireframes become increasingly formalized via components, they are increasingly congruent with the codebase of HTML, JS and CSS that design technologists create for efficiencies in their own work. However, with improved mappings between disciplines from wireframes to code, new expectations begin to arise: How synchronized are the two representations of the design system as each matures in parallel? What is the process to co-manage the libraries? At what cost are the dual artifacts maintained? Such issues may present challenges, but benefits have proven to outweigh the drawbacks.

In fact, mechanization has even extended to experimenting with automated wireframe creation of frequently used page-level starting points by combining (a) a formalized wireframe template, (b) XML page definitions based on components and (c) XML description of a design system’s page grid. Relatively straightforward scripting enables quick, efficient production of starting points so that information architects need not begin by staring at a blank canvas each time. With components in hand, there are numerous directions we can explore to make our process more efficient, consistent and scalable to a large team.

**Conclusion**

Our hope is that information architects continue to polish their design communications just as they do the designs they create and strive for artifacts that are more structured, focused, predictable, prepared, usable and mechanized. By formalizing our approach to common documentation problems, we create more opportunity (and time) to creatively address the interesting design problems we face every day. Ultimately, such polish and professional communication lends credibility and influence to our discipline so we can contribute meaningfully to a positive user experience.

*This material was presented at the ASIS&T IA Summit 2008 in Miami, FL, and associated slides from that presentation can be downloaded from nathancurtis.com.*
How to Be a User Experience Team of One
by Leah Buley

As information architects we tend not to think of ourselves as designers. Library and information science programs, from which many information architects (IAs) hail, do not typically emphasize design methods. And the demands of our day-to-day activities reinforce this focus. Tactical IA, usability testing, content generation and management, database design, user research – these things rank highly in the list of common IA responsibilities; design, not so much [1].

And yet, it’s the design layer that users perceive most directly as the product. Naturally this layer includes the visual design system, but it also includes the moment-to-moment experiences and the blend of information and functionality that IAs are responsible for crafting through wireframes, task flows and storyboards. While many inputs will inform what an IA designs, working out the right navigation, content and functionality ultimately comes from the IA’s own intuition and aesthetics – the timeworn tools of any designer.

Design and the Solo Practitioner

People who work on teams with other user experience (UX) professionals have an advantage here. They benefit from the natural exchange and evolution of ideas that just seems to happen when you put more than one mind on a problem. Solo IAs are not so lucky. Often they must produce creative solutions without the benefit of a team, and that necessity can make their work challenging. Or at least, that was my experience when I first started working as a solo user experience professional in a large organization.

In that role, my design process (Figure 1) went something like this:

1) Put on headphones
2) Retreat into cubicle
3) Push pixels for days.
4) Commence dog & pony show.

My dirty secret throughout this process was that I didn’t necessarily believe that the designs I was proposing were the best solution to the problem. They were simply the best that I had come up with. And so to compensate, I focused on shoring up my arguments in the event that someone should question me.

I didn’t realize how different the process of designing could be until I left my position and joined a team of user experience (UX) professionals at Adaptive Path, a user experience strategy and design firm. There, I saw a version of designing that looked very different, usually involving multiple designers working together to come up with as many ideas as quickly as possible. I saw that this method of working – collaborating with others, sketching rapidly and roughly – made it possible to generate a remarkable volume and variety of ideas very quickly, which could then be mixed and matched, taking little gems from smaller ideas to produce combinations that functioned nicely as a cohesive solution. This situation was my first exposure to this way of working, but I soon discovered that it had long been a mainstay of design thinking [2].

In this approach the creative process starts with divergence and ends with convergence. Divergence is focused on generating as many ideas as possible, and convergence is focused on refining those ideas. In divergence, you unburden yourself of the need to critique or to be practical and simply invite
as many ideas as possible. In convergence, you restrict yourself from further brainstorming and focus instead on refining the ideas that you already have, iterating and evolving the best ones. Throughout all of this, ideas are captured as low fidelity sketches (Figure 2). Taking the time to polish concepts that may be absorbed into better ones simply isn’t efficient. The goal here is to record ideas with the minimum level of effort and at the lowest fidelity necessary to communicate whatever is most compelling about them.

Once I’d learned a bit more about this way of working, a surprising thing happened. I found that I was changing the way I approached creative problem solving even when I was working on my own. Did this mean that these design techniques could be used to bring the creative benefits of team thinking to a practice of one? I believe so, and I’d like to share with you some tips and techniques that you can apply easily on your own. These techniques are lightweight tools that anyone can employ in 15 minutes, 30 minutes or an hour as needed.

**Tools for the Team of One**

The tools that I have found particularly effective are pen and paper; brainstorming; and assembling an ad hoc team to help.

**Pen and paper (the most important tools you’ll ever have).** You’ll find that the ability to draw a quick sketch of what you’re thinking is key to much of what follows. Yes, I know. Sketching can be daunting. When I started at Adaptive Path, I would never have described myself as someone who could sketch. But I saw right away by working with people who could sketch that it brings tremendous benefits. It makes it possible to iterate ideas much more quickly than on a computer. And people really respond to sketches. There’s something about the rawness of the form that seems to signal that this is the time for brainstorming and having fun, which makes sketching a dynamic facilitation tool.

The beauty of sketches is that they don’t have to be perfect. They don’t even have to look good. They only have to be meaningful enough to convey the essence of the idea. If you would like to learn more about sketching and follow some of the same steps that I did to further my own sketching skills, please see the list of resources at the end of this article. And, as in so many things in life, you get better when you practice, so just get started.

**Brainstorming.** The goal of any brainstorming activity is to generate a wide variety of ideas, but I find that I brainstorm most effectively when I’m guided by meaningful constraints. I have found that the following activities provide just enough structure to focus brainstorming while keeping options open ended:

- **Conceptual models.** Conceptual models come in many shapes and sizes. Whatever their form, they can provide a useful structure within which to generate ideas. The key to using conceptual models effectively is to pick a structure that has inherent constraints built in and then to brainstorm within those constraints. Some examples of conceptual models with good constraints are spectrums, two-by-twos and the grids.

  Spectrums simply take one attribute of a design and plot it on a continuum (say, familiarity of use with the product, from first time to expert) (Figure 3). The brainstorming happens when you work on dreaming up ideas for designs at various points along the continuum.
Two-by-twos are basically just one spectrum on top of another, with some added interest in the overlapping dimensions (Figure 4). Whereas in a spectrum you’d brainstorm along the continuum, here you brainstorm within each quadrant.

Grids (Figure 5) simply add more spectrums and more overlap. You can experiment with points along a continuum, as you would in a spectrum or explore different ideas that are less connected to each other.

- **Word games.** Consciously or otherwise, we often use language to evoke ideas about what type of product we’re designing. Words that we use every day without much thought have very specific interface and experience implications. You can use these visual associations to come up with surprising new ideas by combining things that don’t naturally go together. Pattern libraries such as welie.com and the Yahoo! Pattern Library are great resources for words or patterns to start mixing and matching.

- **Inspiration libraries.** No doubt many information architects already keep an inspiration library, but I include it here anyway because it is such an essential part of the practice. Inspiration libraries can take many forms. Some people just keep a list of bookmarks. Information architect Peter Morville stores his collection of search pattern screenshots on flickr [3]. For my own inspiration library, I take screenshots of interesting examples as I find them (using the invaluable Firefox plugin ScreenGrab) and then store the images in iPhoto. I always start a new project with a meander through my inspiration library in search of interesting patterns that might apply.

- **Assembling an Ad Hoc Team.** You may be the sole representative of user experience in your organization, but you’re probably surrounded by people who work in other capacities and whatever their title, you can enlist their help for group brainstorming and feedback.

- **Sketchboards.** Sketchboards are a simple concept. Starting with a big piece of butcher paper, you tape all your sketches to it, as well as sources of inspiration and notes about requirements and strategy (Figure 6). Cluster the material into related groupings where possible. The real power of sketchboards becomes apparent once you put them on the wall and share them with others. You will find that they gave you a way to talk through a lot of different options and even discuss aspects of flow across different parts of the system. Prompted by the sketches in front of them, people become engaged and articulate in talking about the benefits and tradeoffs in various ideas [4].
Open-design sessions. Open-design sessions are an informal invitation for everyone – from product manager to senior technologist – to brainstorm and sketch. No ideas are rejected. The goal is to leverage all the minds in the room to bring different ideas to a problem. Surprising and inventive solutions often come from people who aren’t UX professionals. Your role in the open-design session is to be the facilitator, walking around, piping in with feedback or extra ideas when somebody seems stuck and asking enough questions when people present their ideas for them to be tangible and real enough for you to develop further.

Template-based workshops. When you’re working with a group of people who aren’t experienced with freeform brainstorming, you can run a template-based workshop with basically the same structure and in the same amount of time as an open-design session. Simply come armed with templates that give a little shape and guidance to how to think about the problem. Here are three templates that I’ve used to good effect.

The concept sheet (Figure 7) is the most freeform template. It simply gives participants space to draw a picture and describe the idea in as much or as little detail as they’d like.

The design the box template (Figure 8) asks participants to design the external packaging as if your entire product offering were to ship in a box. It’s a valuable exercise for articulating the basic “aboutness” of what you are designing – what it is, how you’d promote, what makes it special. This exercise helps everyone on the team think about what would inspire a buyer to pick it up off the shelf (which is in effect what they’re doing when they visit your site or try out your software).

The design the experience template (Figure 9) is a language-oriented approach to describing the user experience that you’d like for your product. It asks participants to list nouns, verbs and adjectives for the experience, which then map nicely to objects, functionality and less tangible experiential qualities that would form the basis of the experience strategy and perhaps connect to brand strategy.

Picking the Best Ideas

Once you’ve done all this brainstorming, and you’ve enlisted the help of the rest of your team, how do you identify which ideas best address the problem at hand? The key is to anchor yourself to a handful of specific, meaningful objectives that this product or release should accomplish and then to constantly gauge your progress against them. At Adaptive Path, we call this anchor having a star to sail your ship by. As you make your way across what can sometimes feel like a vast ocean, you constantly realign your little ship to that star.

Business requirements have for many years been the star for projects that
IAs work on. But organizations are beginning to appreciate that simply meeting business requirements is not enough if the product itself is not compelling to users, and so our goals as user experience professionals have evolved. Our mandate now is to create products and services that create differentiated experiences and that people can have a meaningful relationship with.

How do we do this? This is where your final and most powerful tool comes into play: design principles. Design principles are a handful of short statements about what the experience of using your product will be like. They are informed by business requirements and user goals, but ultimately design principles are something different. They are meaningful, directed, catchy statements that are unique to the product. Most projects have about five design principles, give or take a few.

Figure 10 illustrates examples of design principles.

You can see how these statements are more specific than general rules of thumb like “easy to use” and have a distinctness that probably makes them different from what your competitor’s design principles would be if they had them.

Different design principles create different experiences. Once you articulate your design principles, you’ll find that many of the ideas that were generated through brainstorming fall away, and you’re left with a much smaller handful of options that point the way to a focused experience.

So how do you get started? It’s easy. Sit down and draft some design principles. It’s great if you can develop them with your stakeholders, but even if you can’t, just do them for yourself.

Designs that are based on design principles and built upon well-explored ideas help you craft a product with tangible benefits and a little bit of personality for the people who use it – and they it make it easier for you to do the job with confidence and conviction. Whether you call yourself an IA or a designer or something else entirely, such mastery ultimately is what it’s all about.

Figure 10. Design principles

![Design principles](image)

<table>
<thead>
<tr>
<th>Resources for Sketching</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anything from the Grove International (<a href="http://www.grove.com/">http://www.grove.com/</a>), especially including the following:</td>
</tr>
<tr>
<td>Taking any class with a technical drawing component, such as interior design, architecture or drafting. I took this class: <a href="http://www.unex.berkeley.edu/cat/course227.html">www.unex.berkeley.edu/cat/course227.html</a></td>
</tr>
<tr>
<td>Last but not least, keep a sketchbook and force yourself to draw one sketch every day.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Resources Mentioned in this Article</th>
</tr>
</thead>
</table>
I was recently fortunate to participate in the U.S. Department of State Fulbright Senior Specialist Program (www.cies.org/specialists/) designed to provide short-term academic opportunities (two to six weeks) for U.S. faculty and professionals. These shorter commitments give specialists greater flexibility to pursue their current academic or professional obligations. Goals of the Fulbright program are the following:

- Increase the participation of leading U.S. scholars and professionals in Fulbright academic exchanges
- Encourage new activities that go beyond the traditional Fulbright activities of lecturing and research
- Promote increased connections between U.S. and non-U.S. postsecondary academic institutions

Program enrollment is quite simple. Once an institution’s request for a specialist has been accepted, an appropriate institutional representative within a country must nominate you (the specialist) and submit a statement of work (assuming, of course, your coordination and mutual acceptance). This process is coordinated with the U.S. embassy within that country. While this process sounds complicated, it can occur very rapidly. (The secret to efficiency is not what you know, but whom you know, either in a foreign institution or within a U.S. embassy.)

Remuneration is $200 a day, and the nominating organization will provide housing, meals and transportation within country. The Fulbright Program pays for transportation from the United States to the project site.

University of Vilnius Library, Lithuania

I conducted such a project at the University of Vilnius Library, Lithuania, in mid-May of this year. The appointment involved promoting acceptance of the changes a digital library and digitalization bring to a traditional, academic library. My task was made much easier due to the work of another Fulbright senior specialist, Barbie Elene, who carried out two three-week projects there before I arrived.

The “statement of work” from the library included the following provisions: [We expect the senior specialist to] work closely with the staff of the University Library as we move from a traditional environment to one more suited for the current day. Many of our long-term staff are resistant to change, and we look to the senior specialist not only to make them feel comfortable with the changes that must come, but to look for changes that they can make in their own work and that of their departments. The organizational structure of the library may have to change, and we seek advice on to how to accomplish this with a minimum of disruption.

We look to the senior specialist to help us determine what needs to change in restoration, conservation, digitization, exhibitions and digital library creation; how best to implement those changes, and how we can continue to improve and grow once the specialist has departed.

We are creating a digital library – it would be useful to hear the specialist’s practical suggestions on how to create a digital library and how others have implemented changes in restoration, conservation, digitization and exhibitions.

The staff of the library consists of approximately 130 members, many holding an MLS or equivalent from the University of Vilnius or other institutions. They certainly did not need training in library science! The
The project involved, therefore, training staff in change management and in how to motivate staff to embrace a new environment, most importantly for a rather large restoration operation.

The Director General of the Vilnius University Library, Professor Audronë Glosienë, has served in various positions, including head of the Faculty for Library Science (part of the Communications Faculty). She is well known in Europe and the author of many papers. The university is also building a new campus with a second library at this site. These changes will provide new challenges and opportunities. Professor Glosienë’s 2006 vision for the new library includes the statement “The Challenge of Change - Shake up, then Inspiration.” (The report includes several pages in English, www.mb.vu.lt/apie/2007CD.pdf and is recommended reading.).

My activities, therefore, involved a change management project, a change influenced by technology. This problem required the classical “black box” approach, that is, someone outside the organization supporting what the staff already knew.

**Project Results**

The executive summary submitted at the end of the project explains the results of my investigation:

A. The library staff are highly motivated, well trained and ready for changes.

B. As in most organizations, staff (especially long-term) are resistant to change. The challenge concerns not only how to make staff feel comfortable with the changes, but to involve them in the change process so that they “buy-in” to the process (which they help design).

   (The buy-in concept was introduced several times, including in a team-building exercise. This included a basketball game (the national sport of Lithuania) of all key staff, each passing the ball to another, after asking for help and getting a response by a hand up. Midway I walked out with the ball, because as a faculty librarian, no one passed me the ball – an instantaneous recognition of buy-in.)

C. The organizational structure of the library should change, especially in restoration, conservation, rare books and manuscripts, all of which will be impacted by new technology (digitization) and Lithuanian legislative emphasis on preservation of its cultural heritage.

D. An extensive bibliography showed how digitization is being used worldwide to supplement or replace conventional preservation/restoration. It is faster, cheaper and makes more documents available to more readers than conventional restoration. A database and formalized workflow with priorities was recommended, as was close coordination the National Library (and others) to avoid duplication (i.e., digitizing the same objects).

E. Open source efforts were supported by discussion of copyright implications, impact of digitization and recommendations for a federated search engine.

F. Education. A lecture was given to LIS graduate students on the steps required to develop a digital library. I sponsored four students as ASIS&T student members, the first in Lithuania.

**Summary**

I made several recommendations on digitization technology and the impact on other library operations, including open source management and digital library creation. As the staff was highly qualified in all aspects of library and information science, I also assisted in bringing (American) training in change management and motivational theory (staff involvement and buy-in), critical skills in their time of change and expansion.
Informatics Student Activities at UCLA
by Sarah Buchanan

Informatics is an essential component of current study and practice within the field of library and information science. As a 21st-century discipline, it entails the design and implementation of information technology applications to a burgeoning variety of contexts including web spaces, online catalogs, digital libraries and electronic journals, to name a few. Whether students realize it, many electronic resources are already in place at universities that not only support student learning, but provide the primary means of instruction and intellectual content of courses. From the practicalities of developing wiki portals to enhance student access to class resources to selecting the appropriate metadata scheme with which to display library records, informatics pervades many aspects of the student learning experience.

At the UCLA Department of Information Studies, the student chapter of ASIS&T has worked throughout the 2007-2008 academic year to bring the field of informatics to campus and help guide informatics and technology-related developments into everyday classroom discussion. The term informatics is interpreted by our department to include all aspects of electronic and/or computer-based information retrieval, including web design, user interfaces, electronic privacy and even data retention policies. One component of our informatics specialization, for example, is information architecture, a more limited concept that many of our chapter members interpret as an application of the theory of informatics to effective backend design of a web page or database, in a way that meets defined user needs. Jesse James Garrett, in his paper “The Elements of User Experience” (available at www.jjg.net/elements/pdf/elements.pdf) describes the web as a duality, one that must meet task-oriented (software) and information-oriented (hypertext) needs on behalf of users and designers.

In concert with the principles and goals of the national ASIS&T organization, student officers at UCLA have sought to promote access to information technology and communicate the value of understanding how technology affects information-seeking behaviors and the acquisition of new knowledge. Above all, we as a group have emphasized that technology is ultimately about people, not machines, and that individual people remain the driving force behind the creation of new ideas, new ways of connecting those ideas and new methods of responding to an information-rich society. The student members of the UCLA ASIS&T chapter have gained a new understanding of the complex interplay between people and information through our yearlong activities.

At these discussions it was most rewarding to hear

Editor’s note: Each year ASIS&T honors one or more student chapters with a Student Chapter-of-the-Year award. I ask that chapter to recruit a student to serve for a year on the Bulletin Advisory Board and to write a column for us. In 2007 the winners were UCLA and Simmons. Sarah Buchanan is our current student member from UCLA.

Sarah Buchanan is an officer of the student chapter of ASIS&T at UCLA, the 2007 winner of the Best Student Chapter-of-the-Year award. She can be reached by email at sarahab@ucla.edu or through the chapter’s email at asisctab@ucla.edu.
different perspectives, including those of students, on the current state and future direction of the informatics field. As a group, our chapter finds these informal group discussions to be a stimulating means of scoping out different ways in which professionals and professionals-in-training currently deal with digital information. Our participants discussed how we can positively impact users’ access to these resources by designing effective digital resources, including websites and databases, and improve public perception and appreciation of information architects as information providers.

As students interested in pursuing informatics professionally, we also discussed professional development with our speakers. The informatics field is continually expanding, and we found no prescribed path shared among informatics professionals who often come into the field from other related disciplines or practices. Compared to the library and archival field, for example, two other specializations at our department, the informatics field affords students a less-prescribed path and encourages creativity and innovation in order to comprehend the value of information as used by different organizations both locally and globally. These circumstances leave students with many exciting and original options to consider, and we have the opportunity to chart new territory and contribute to the development of informatics in the coming years. Organizations continue to face the need for effective resource allocation, management and data retrieval in order to accomplish daily business tasks, and many businesses are turning to digital solutions – hence our emphasis on the value of informatics in the study and shaping of information.

Students in our program interact with a wide range of computer-based resources on a daily basis – from Moodle and Blackboard to the library OPAC to blogs on many subjects – and the ability to critically evaluate and propose suggestions for enhanced user access of these resources is a valuable skill for students and pre-professionals to have.

At a fall ASIS&T chapter event, interested students attended a campus visit by two journalist bloggers who shared their professional experience: Jenny Burman, who writes for L.A. Observed and follows the news of Echo Park, a Los Angeles community (www.laobserved.com/echopark/), and Brad A. Greenberg, a UCLA alumnus who writes for the Jewish Journal (http://jewishjournal.com/thegodblog/). These writers shared their perspectives and experiences regarding the legitimacy of blogs, the establishment of trust with their readers within a Web 2.0 context, becoming involved in community life and the soliciting of subject material for their parent publication (if applicable).

Some of our officers were also involved in our department-wide CareerFest, where we held panels and planned events involving local professionals who offered invaluable advice to both first- and second-year students. Our ASIS&T student chapter was very privileged to be able to arrange a Yahoo! Entertainment Usability lab tour in Santa Monica, where we heard from several informatics professionals and viewed current eye-tracking and behavior-based technologies.

The student chapter at UCLA also held three special workshops this year based on topics that sparked a lot of student interest: Creating Websites, ContentDM and Databases. We try to cover topics we believe are integral to our education as information professionals, but may have not gotten adequate classroom discussion time. Our instructors provide expert guidance regarding topics such as the fundamentals of HTML and CSS, how to edit metadata in the ContentDM digital management system, the technical differences between relational and flat databases and how to best create a simple database appropriate to user needs.
in FileMaker Pro. Throughout our planning of these events, we strive to address audience members with varying levels of technical expertise, from basic (data entry) to more advanced (writing code, digital imaging, etc.). Finally we hosted a conference panel, in which our panelists shared tips for first-time attendees and advice regarding how to best approach the conference experience.

In the upcoming year the ASIS&T student chapter at UCLA will strengthen our connection with LACASIS, increase conference attendance among student members, promote the use of a blog among the other information studies student groups and continue discussions with professors regarding topics that might not get adequate mention in our classes, but that are still relevant to current trends and practices. The ASIS&T student leadership team remains committed to sharing our knowledge of informatics and technology as a new school year approaches, and we welcome input from any current professionals regarding our activities and outreach efforts. The informatics community at our university is thriving, and we are excited to introduce new ideas and concepts to incoming and continuing students in the upcoming year.