

Research Statement Investigating  
Information Consumption, Production, and Need in  
University Student Organizations

Kalev Leetaru  
March 1, 2005

Student organizations provide a unique opportunity for students to socialize with like-minded peers and pursue activities that allow them to enjoy and share their common interests. Like their traditional non-profit counterparts, these organizations have distinct and intertwined organizational and information-based needs. <sup>1</sup>

In order to conduct their business efficiently when dealing with the external world, student organizations have a strong need to maintain a consistent identity. Since a great deal of communication in the modern era takes the form of electronic mail, this need often manifests itself in the form of shared or “branded” information streams that allow multiple members of the organization to communicate in a way that abstracts them from their role as a representative of that organization and instead places their information into the realm of an official response from the organization, alienated from its originator. <sup>2</sup>

This use of online communication has become an increasingly-important tool for student organizations to communicate both with their members and the external world. The organization’s Web site and mailing lists are one of its most important assets for external communication. They are used both to increase its visibility on campus in order to communicate events and news items to current membership and to recruit new members by enticing them with information about its activities and goals. <sup>3</sup>

While a Web site and mailing lists provide the primary mouthpiece of the organization, these official information channels need to be supplemented by forums in which members can speak informally amongst themselves. Regular meetings are one of the most popular methods of providing this informal interaction, which provides a

secondary level of information transfer that more closely addresses the individual information needs of each member.<sup>4</sup>

As organizations evolve, their information needs form a developmental continuum that closely tracks the evolution of the organization itself. Early-stage organizations need an *incubator* to spawn, encourage, and see new ideas to fruition, while ones in the later stages of development require *shaping*, and established ones need political and informational *stability*. Faculty advisors are the primary source of this incubation, shaping, and stability, and are relied upon to provide the critical experience and knowledge at each junction in the organization's development.<sup>5</sup>

While all student organizations share a basic set of needs, minority-serving student organizations face a unique set of challenges beyond those of their peers. They must provide an island of common interests and information sharing within the context of an indifferent or discriminatory environment.<sup>6</sup> Gender and race-based organizations play the role of social networker and inwards-looking information provider, while cultural organizations add a layer of cultural preservation on top of these needs.<sup>7</sup>

The information needs of student organizations thus paint a picture of an entity with a strong need for uniform identity, a rigid hierarchy of information transfer, the ability to juggle official and informal information channels, reliance on external counseling to provide stable information streams of evolving nature in response to the organization's growth, and, in some cases, the requirement to fulfill an additional role as information provider in the face of indifferent or discriminatory environments. Student organizations often fulfill many of these needs through a strong online presence, including Web sites, mailing lists, and electronic mailing addresses. As Frieze and Blum

emphasized,<sup>8</sup> online communications mediums are critically important as both external and internal information channels. However, the complexity and expense of these electronic mediums often present a significant hindrance to their effective use.<sup>9</sup>

Online information technologies are a cornerstone of a student organization's communications mechanism, yet they are often hard to utilize effectively. This raises the question of how these technologies might potentially be adapted to better suit the needs of student organizations. To answer this question, a mapping must be constructed between the communication (both acquisition and production) expectations that a student organization places on its electronic mediums and the actual results it obtains. The endpoints of this mapping present a set of expectations and outcomes and the connections between them illustrate the techniques and technologies used to achieve those outcomes. By placing a novel organization and its applications of communications technology within this mapping, it should be possible to derive a reasonable prediction of its success in meeting its communication goals. More importantly, however, clusters of similar connections in this mapping represent common themes of application failure, where the technology or the methods used to apply it were insufficient for the initial expectations.

Through the detailed description of information technology application in student organizations and the mapping of expectations to outcomes through those applications, a better understanding of the technology needs of these organizations may be achieved. Common themes unearthed by this mapping could then be used by software developers to provide customized solutions that specifically address these needs and hopefully increase the ability of these mediums to meet the needs of these organizations.

To produce this mapping, the natural approach would be to survey a number of student organizations and ask what current online information technologies they use for communication. The organization's communication goals for that technology would then be assessed, along with details of the how the technology is applied to reach those goals. Finally, the actual results that the organization has seen from the technology would be surveyed. This would be supplemented with suggestions from the organizations on how they believe the technology could be adapted to better suit their needs, and any specific concerns they have with current implementations.

While such a mapping and the broad survey approach used to build it would be a valuable resource, they would only provide the *what* and not the *why*. To a software developer, the *what* is often the most important question, as it guides the implementation. To truly understand the problem, however, the *why* must be more clearly understood, and such information can only really come from the type of in-depth analysis provided by a case study.

Over the last year, the local section of the Society of Women Engineers orchestrated and launched a sweeping initiative called Align by '09. Of its five primary goals, two of them relate directly to the information-provider role of a minority-serving organization. One of the goals, to *develop and host an annual engineering design competition for girls in grades 4 through 6*, specifically targets younger girls considering a career in engineering. Its primary informative mechanism will be through one-on-one interaction and mentoring between UIUC female engineering students and these girls.<sup>10</sup> While the importance of one-on-one interaction on information transfer with young

children cannot be overlooked, the short duration of the contacts in this project severely limit the potential of their long term impact.

To provide a long-term information channel to both aspiring young female engineers and also college students and professionals, the UIUC SWE section has determined *to become a primary source of information on engineering and careers for women of all ages...two major avenues of knowledge dispersal will be a website dedicated to these issues and an online networking program amongst alumnae, faculty, and members.*<sup>11</sup> While work has already begun on initial information gathering for this new site, a fundamental unanswered question remains as to the final scope of the site and the way in which the site ties in with the organization's local goals and existing information technology use. Many student organizations focus their information-providing efforts on their local audience of members and potential recruits, and do not even contemplate creating broader or even national-scale information resources.

This initiative provides the unique opportunity to study in considerable detail the information needs of a single organization, ranging from its internal communications to its desire to become a significant external information provider. While the results of a large-scale survey would be extraordinarily useful towards addressing the general technological needs of student organizations in general, conducting a case study on a single organization will provide a better understanding of the *why* behind those needs and a more detailed picture of the information needs being satisfied through technological means, as well as those that are currently satisfied through more traditional mediums.

Within the scope of such a case study, the question being asked largely remains the same, but is subdivided and refined to answer several intertwined lines of

questioning. The first relates to electronic mailing lists and their role as an official information channel. To what extent do the expectations placed on this channel by officers equate to the actual satisfaction that recipients derive from the lists in terms of meeting their information needs? For example, many organizations publish a weekly newsletter that contains a list of upcoming events for that week. By publishing this weekly calendar in the newsletter, officers are expressing an expectation that the “push” nature of the medium will encourage greater readership, but to what extent does the membership read that section of the newsletter and how much does it affect their scheduling for the week with respect to other mediums such as the Web site or other published calendars of the organization? The second question relates to the Web site and its role as official information stream. Similar to mailing lists, the expectations and realities of this information stream will be examined, but the possible use of such a site to complement the informal interaction of regular meetings will also be analyzed. Would the creation of bulletin boards or private areas of the site dedicated to specific topics and not moderated by the organization’s officer board provide a viable alternative to regular meetings as a peer-to-peer information source in the context of student organizations? Finally, the role that the Web site plays as an outreach information source and its relationship to the organization’s local outreach goals will be investigated. In particular, the question of “branding” will be investigated, and how such a site should or should not be differentiated from the other information channels used by the organization.

Taken together, these three questions represent a cross-section of the electronic information needs of a single student organization. The interrelatedness of each of the mediums investigated (mailing lists, local Web site, and national Web site) emphasizes

the continuum of information transfer through electronic mediums in these organizations and hopefully will unveil some hidden relationships between them.

These questions will be answered through a survey of members of the subject organization, the local UIUC section of SWE. The survey instrument will branch based on whether the survey subject is an officer (in which case it will focus primarily on expectations) or member (in which case it will focus primarily on consumption). From the standpoint of the questions being posed, these two categories represent the two primary classes of information provider and information consumer. The success of mailing lists and Web site as an information channel between officers and members may be readily examined through the eyes of these two subject classes, as can the potential effectiveness of the Web site as an informal information channel. The Website as an outreach instrument, however, places both officer and members together as information provider through the single actor of SWE and places the outside world as the consumer. The number of classes of consumer that would have to be addressed as the audience of this site make studying the consumer side of the Website, and hence the analysis of its *content*, beyond the scope of the single survey instrument used for this paper. Instead, the survey instrument will focus on the extent to which the local organization integrates its Web-based outreach efforts with the local information goals of that site, and to what extent the organization itself considers branding a concern. Hence, by focusing on the site from a *producer* standpoint, the emphasis will be on the *methods used to create* the site as opposed to the content of the site.

By conducting a broad survey of student organizations' information technology use, a generalizable set of mappings could be obtained that provide a direct basis for

software implementation. However, the narrow focus of these findings would not provide a supporting framework within which they could be explained. If a particular expectation-application-outcome theme was discovered within the data, further work would be required to situate that finding within the greater information needs of the organization to determine whether it was a genuine shortcoming of the technology application, or if it was an artifact of unrealistic communication demands. Often, by examining the larger context of a communication exchange, subtle secondary needs may become apparent, such as a newspaper journalist using multiple clippings archives not just to collect details of a story, but also to see the various angles that have previously been used to present it.<sup>12</sup> Instead, by performing a detailed case study of the ways in which technology is used to meet the information needs of a single organization, the generalizability of such a broad survey is sacrificed, but the outcome may be placed within an operational context, providing a bigger picture in which it may be analyzed not only with respect to the needs that are and are not fulfilled, but also on the appropriateness of the technologies used to fulfill those needs.

---

## REFERENCES

- <sup>1</sup> Demirdjian, Z. (2002). The VIRTUAL UNIVERSITY: IS IT A PANACEA OR A PANDORA'S BOX? *Academy of Business & Administrative Sciences Conference*. Cancun, Mexico.
- <sup>2</sup> Muller, M., Gruen, D. (2002). Collaborating Within – not Through – Email: Users Reinvent a Familiar Technology. *Proc. CSCW '02*. New Orleans, LA, USA: ACM.
- <sup>3</sup> Frieze, C., Blum, L. (2002). Building an Effective Computer Science Student Organization: The Carnegie Mellon Women@SCS Action Plan. *SIGCSE Bulletin*. Vol. 34, No. 2.
- <sup>4</sup> Frieze, C., Blum, L. (2002). Building an Effective Computer Science Student Organization: The Carnegie Mellon Women@SCS Action Plan. *SIGCSE Bulletin*. Vol. 34, No. 2.
- <sup>5</sup> McCluskey-Titus, P. (2004). Student Organization Adviser as Mentor: A Different Paradigm? *NASPA NetResults: E-Zine for Student Affairs Professionals*. January 20, 2004.
- <sup>6</sup> Fletcher, S., Newell, D., Newton, L. (2001). The WISE Summer Bridge Program: Assessing Student Attrition, Retention, and Program Effectiveness. *Proc. American Society for Engineering Education Annual Conference & Exposition*.
- <sup>7</sup> Liang, C., Lee, S., Ting, M. (2002). Developing Asian American Leaders. *New Directions for Student Services*. Vol. 2002, Issue 97, 81-90.
- <sup>8</sup> Frieze, C., Blum, L. (2002). Building an Effective Computer Science Student Organization: The Carnegie Mellon Women@SCS Action Plan. *SIGCSE Bulletin*. Vol. 34, No. 2.
- <sup>9</sup> Burrows, V. Electronic Conferencing in Undergraduate Engineering Classes. *Technical Report, Arizona State University*.
- <sup>10</sup> <https://netfiles.uiuc.edu/krushton/www/AB09%20final%20document.doc>. Align By '09 Program Information. Accessed February 7, 2005.
- <sup>11</sup> <https://netfiles.uiuc.edu/krushton/www/AB09%20final%20document.doc>. Align By '09 Program Information. Accessed February 7, 2005.
- <sup>12</sup> Attfield, S., Dowell, J. (2003). Information seeking and use by newspaper journalists. *Journal of Documentation*. Vol 59, No. 2, 187-204.