# Revitalizing an Online Community

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## Abstract

It was established early on in this study that a Language, Literacy and Culture Program (LLC) site is needed to keep the community connected. A community-centered design was considered, and implemented in the fall of 1999. The current study was implemented to assess why the site failed and what could be done to revive it.

The findings of the current study indicated that the community did not develop as expected despite the team's effort to follow a community-centered approach. In this paper we consider the reasons for the site's failure, and what could be done to revitalize the community. Through surveys, and interviews it was determined that the community needed more active participation from the moderator and faculty. They also required a more interactive and better developed design, and special care should be taken to train the members who need it on the use of technology involved.

# 1. Introduction

In the fall of 1999, a group of students enrolled in a graduate *Online Communities* course, designed and developed an online community site for the Language, Literacy, and Culture Doctoral Program (LLC) at UMBC. This is a multidisciplinary program that is now in its 4<sup>th</sup> year, with 39 active students.

The interdisciplinary nature of the LLC program allows students to design individual programs of study. Once students have completed the first core course, they may find that they are regularly separated from other students in the program and are not likely to take courses with any one faculty member more than once or twice. While students felt that the flexible nature of the program was excellent, they also felt that it has resulted in a weak academic/social support network. Many LLC students expressed a sense of feeling isolated and that the program was fragmented as they progressed through it. In addition,

the fact that almost all the LLC students are working professionals at the mid-point in their careers makes maintaining communication and contact difficult. In a needs assessment prior to the design of the LLC Online Community, students expressed the belief that an online community would serve their need for information, and academic and social support. They indicated that it seemed that an online community would be a quick and efficient way for the group to connect, relate, support and mentor one another. There was a strongly expressed need within the LLC student group for the community site. When asked if they would like to be able to more easily exchange information, useful references, and communicate with each other, the students responded favorably. The student development team then explained the concept of an online community and the LLC students responded enthusiastically to this idea. They said that they would like one for their program.

The project team designed an LLC online community site to meet the needs expressed by LLC students and faculty and launched the site with a message to the LLC listserver in December, 1999. A 'community-centered development' approach (Preece, 2000) was employed in the design and development of the LLC online community site. Students in the LLC Program were involved in the process at all stages of the design and implementation.

During the subsequent semester, project team members checked the site to see if the LLC students were using it. Several attempts were made to inform students of the URL for the site and encourage them to participate. But it was evident that the site had not attracted students and that they were not using it.

# 2. Developing the LLC community

#### 2.1. Background

Online communities, like traditional communities are meant to bring people closer. They link people who share the same interests, goals, activities and governance. Developers rely on existing definitions to guide them in

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establishing and maintaining an online community. There are several definitions of what an online community is. In this project, the team relied on the definition given by Preece (2000):

An online community consists of:

- People, who interact socially as they strive to satisfy their own needs or perform special roles, such as leading or moderating.
- A shared purpose, such as an interest, need, information exchange, or service that provides a reason for the community.
- Policies, in the form of tacit assumptions, rituals, protocols, rules, and laws that guide people's interactions.
- Computer systems, to support and mediate social interaction and facilitate a sense of togetherness (p. 10).

Communities are complex; there is no one single route to success. Online communities are no exception, and their survival depends on a carefully designed, implemented, and maintained community site in which social interaction is encouraged and supported (Powarzek, 2002; Preece, 2000). Online communities evolve and change continually just like physical communities.

### 2.2. Establishing the community's needs

The community's needs were taken into account before the implementation of the design. The group was surveyed and 12 members returned the questionnaire. In addition 9 members were interviewed in order to tailor the site to the community's needs. Most respondents to the survey and the interviews indicated that they would use the site only if it was helpful in their academic work. They indicated as well, that they would like to use the LLC site as a way to communicate with others in the group. From the 21 responses one participant indicated that she would never visit the community site because she did not like computers. Several members expressed a desire to have a discussion board in order to exchange ideas with others students and faculty. In an online needs community survey 18 respondents checked research as a primary reason for visiting the site, and 8 expressed the desire to have moderated sessions of discussion.

The responses to the surveys and interviews shaped the development of the community site. It was evident that content matters, and it was a primary concern with the design group. However, content alone will not sustain a community, the design plays a major role in keeping members coming; the web navigation should be consistent, and the design should never upstage the content, and most of all one should keep in mind the target audience before implementing any design. In addition to readability the community should also be appealing to the target audience. In fact the developer is designing for the

community (Kim, 2000; Powazek, 2002). However, sociability should not be overlooked. The purpose forms the heart of a community, while people are its 'pulse', and policies keep it all tied together and keep it functioning smoothly (Preece, 2000).

The idea of a community started with a purpose. There was a need to bring the group together and the online community was the link between the members (Preece et al., 1994; Preece, 2000). The surveyed users expressed an interest in having a site to communicate with each other, to read each others research and to do research for their own projects. The design team relied heavily on the purpose in order to design the site:

- The main concern is for the community to stay connected.
- Information dissemination about the program were included, as well as links to some important journals and associations pertinent to the members.
- Links to existing list servers were included on the site.
- A discussion board was included in order for members to voice concerns and ideas.

The purpose remained at the heart of the design.

#### 2.3. Developing for usability and sociability

In order to avoid web surfers' frustration in the web page, the download time was considered, and very few graphics were included. The site was also tested on several browsers and was found to be compatible on all. The site was piloted before it was made fully available to the intended group (Hochheiser & Shneiderman, 2001; Shneiderman, 1998); through a carefully designed questionnaire the team received feedback on the usability of the site (Simpson, 1990). Therefore the discussion board was selected for it user-friendly design.

At the heart of any community are the members, and therefore its sociability. Sociability concerns itself with three major components: the purpose of the site, the people that come to the community and the policies established by the developers and moderators. A community with a clearly stated goal has a good start, but people make up a community, and therefore in order to survive an online community needs active members and active moderators to keep the discussion going. The role of a moderator should be to implement and maintain policies, because without governance problems may arise and that could be the end of the community. However, moderators should be careful not to introduce too many rules, because the members might feel restricted and decide it is not worthwhile returning (Preece, 2000; Preece & Maloney-Krichmar, 2002).

# 3. Why wasn't the community successful?

#### 3.1. Methodology

In the summer of 2000, a case study was conducted to investigate why the LLC Online Community was not attracting students. The primary method of investigation in this study was focused, semi-structured interviews. Twelve of twenty-four current LLC students were interviewed (Berg, 1998; Yin, 1994). Two focus-group interviews were tape-recorded. One took place in the home of one of the LLC members and the other one was conducted in the office of another LLC student. Four interviews were conducted by telephone with detailed notes of the conversation transcribed by hand. In addition, informal conversations were held with three of the faculty members on the LLC Advisory Board.

The interviews were transcribed and coded in order to identify broad topics of discussion. The text of the interviews was reread to refine the coding process and new categories were added and others were combined and collapsed as themes emerged from the data (Berg, 1998). The coding index consists of four broad categories:

- Current use of the Internet to participate in online communities/groups;
- Current use of the LLC Online Community site;
- Belief that a need exists for an LLC Online Community, and
- Suggestions for getting LLC students involved in the online community.

Each of these thematic categories had a subset of thematic indexes.

# 3.2. Data analysis and interpretation

The interview data presented in Table 1 is related to LLC students' current use of the Internet to participate in online communities/groups. It revealed that 83% use email to maintain regular contact with family and friends; 91.6% regularly participate in professional and personal interest online communities, and 58% described themselves as very active in online communities. When questioned about what factors determined which online communities they participated in only 25% mentioned time as a determining factor; 83% mentioned professional interests and 91.6% mentioned personal interests as major factors in determining their regular participation in online communities. Fifty percent (50%) of the group indicated that their desire to stay in contact with a specific group was a major factor in determining their regular participation in online communities. Seven of the twelve student interviewed were not U. S. citizens and they used the Internet to obtain information, keep informed of current events and related to persons in their home countries.

Table 1: Current participation in online communities and determining factors

|  | A | В | С | D | Ē | F          | G | H | П | J | K | L |
|--|---|---|---|---|---|------------|---|---|---|---|---|---|
| Currently using  |   |   |   |   |   | _          |   |   |   |   |   |   |
| Email to maintain contact with friends/family (10)                   | х |   |   | х | х | х          | х | х | Х | х | Х | х |
| Professional and personal interest lists (11)                        | Х | х | Х | х | Х | . <b>X</b> | Х | х | χ | Х | X |   |
| Very active in online groups (7)                                     |   |   | Х |   | X | χ          | X | Х | Х |   | х |   |
| Things that determine which online groups I regularly participate in |   | , |   |   |   |            |   |   |   |   |   |   |
| Time constraints (3)   |   |   |   |   |   |            | Х |   | X |   | Х |   |
| Professional interest (10)   | X | Х | Х |   | Χ | X          | X | Х | Х | Х | X |   |
| Personal interest (11)   | Х | Х | X |   | Х | Х          | X | X | X | Х | Х |   |
| Desire to stay connected to a specific group (7)                     | х |   |   |   |   | х          | Х | Х | Χ | Х | Х | χ |

Table 2 presents the data related to the current use of the LLC Online Community site. It reveals that 58.3% of the persons interviewed never visited the LLC Online Community site. The reasons given fell into five categories: did not remember being given the URL of the site (2 responses); lost the URL (2 responses); it was too hard to obtain the URL (2 students); did not have the technical knowledge to access the URL (2 responses), and could not access the URL on the computer in use (3 responses). Students responded in more than one subcategory.

Five (41.6%) LLC student indicated that they visited the site once but did not go back. The reasons they gave for not returning to the site covered a variety of problems with the site not working properly and not finding the information they had anticipated finding. Four (33,3%) students responded that after the initial access of the site. they really did not know anything more about the site; four (33.3%) students indicated the site did not work well; four (33.3%) of the students responded that they were just too busy to access the site; four (33.3%) indicated that it should not feel like work to use the site, and 3 (25%) responded that they could not determine why they should use the site. Students also stated that they could not find what they wanted (1 response) or could use (1 response); one student did not want to make a commitment to the community because she was very busy doing other things and one student indicated that the site did not feel like a community.

In the interviews students explained that they did go and look at the site and sent their comments to the developers. For example one student said, "Didn't you send it [the URL for the online community site] to me with the explicit instructions of trying it? So I did! I went up to a point, but then a couple of things did not work and I wrote feedback and I never heard back. I never went back...." Another student added, "When you sent it to us, I book marked it and there was nothing there, the first time I went it was empty and I never looked at it again ..." Another student stated, "...when David gave me this card [with the URL], I thought cool we have our own web site, but we were so overwhelmed with things...I don't know...I thought ...like why should I check it...to look for what or to do what?"

Table 2: Current use of the LLC Online Community site

|  | A | В | C | D | E | F | G | Н | T | J | K | Ĺ |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Never visited the LLC web site (7)                     |   | Х | χ |   |   | Х | Х | Х |   | X |   | Х |
| Don't remember being given the address (2)             |   |   |   |   |   |   |   | X |   |   |   | х |
| Lost the address (2)                                   |   | X |   |   |   |   | X |   |   |   |   |   |
| It was too hard to find the address (2)                |   | X |   |   |   |   | Χ |   |   |   |   |   |
| Did not have the tech<br>knowledge to access it (2)    |   | X |   |   |   |   |   |   |   | Х |   |   |
| Could not access it on the<br>computer I was using (3) |   |   | Χ |   |   |   | X |   |   | х |   |   |
| Visited it once and did not go back (5)                | х |   |   | X | Х |   |   |   | Х |   | х |   |
| Reasons for not using the site (by both groups)        |   |   |   |   |   |   |   |   |   |   |   |   |
| Did not really know about it (4)                       |   | X |   |   |   | X |   | X |   |   |   | X |
| i didn't find what I wanted (1)                        |   |   |   |   |   |   |   |   | X |   |   |   |
| I did not find things I could use (1)                  |   |   |   |   | χ |   |   |   |   |   |   |   |
| Made suggestions but received no feedback (2)          | X |   |   |   |   |   |   |   |   |   |   | Х |
| The site did not work well (4)                         | Х | х |   | х |   | Х |   |   |   |   |   |   |
| Too busy (4)   |   |   |   |   |   | X | X |   | X |   | X |   |
| Did not know why I should use the site (3)             |   |   |   |   |   |   | X |   | X | Х |   |   |
| Did not want to make a commitment (1)                  |   | X |   |   |   |   |   |   |   |   |   | - |
| Did not feel like a community (1)                      | - |   |   |   |   |   |   |   | X |   |   |   |
| The LLC listserv is fulfilling need to get info (2)    |   |   |   | Х |   |   | X |   |   |   |   |   |
| It should not feel like work<br>to use the site (4)    |   | Х |   | Х |   |   | х |   | X |   |   |   |

Table 3 presents the data on the belief by LLC students that there is a need for an online community, the reasons for the need and a statement indicating that the persons would use the site. One-hundred percent (100%) of the students interviewed said that they felt that there was a need for a LLC Online community. They responded

with a variety of things the online community could do for LLC students. To connect to other students in the program was mentioned most often with 75% of the students indicating that this was a reason to have an online community; to provide links to research sites of interests to students and to provide an opportunity to discuss research interests with others were mentioned by 66.6% of those interviewed; 41.6% of the group felt that an online community could help reduce the feeling of isolation and provide an opportunity for students to help/mentor each other; 33.3% mentioned that the online community could reduce the feeling of fragmentation some LLC students feel, and 41.6% indicated that the site could provide needed program information. Eleven of the 12 students (91.6%) interviewed indicated that they would use the LLC Online Community site.

Table 3: Need for the site and willingness to participate

|                             | Α  | В  | С   | D  | E             | F | G  | Н  | 1   | J | K  | Ł      |
|-----------------------------|----|----|-----|----|---------------|---|----|----|-----|---|----|--------|
| Believe that LLC Students   |    |    |     |    |               |   |    | П  |     |   |    |        |
| need an online              | X  |    | X   | X  | Х             | Х | X  | X  | X   | X | Х  | Х      |
| community (12)              |    |    |     |    |               |   |    |    |     |   |    |        |
| Reasons why LLC students    | Γ, |    |     |    |               |   |    |    |     |   |    |        |
| need an online community    |    |    |     |    |               |   |    |    | L   |   |    |        |
| To provide links to areas   |    |    |     |    |               |   |    |    |     |   |    | $\Box$ |
| related to student research | X  |    | X   | X  |               |   | X  | X  |     | Х | X  | X      |
| (8)                         | 1  | ,  | ١,  |    |               |   |    | 1  |     | 1 |    | ŀ      |
| To provide an opportunity   |    |    |     |    |               | П | _  |    | _   |   | _  |        |
| to discuss ideas/research   | X  | X  |     | X  | 1             |   | X  | ,  | X,  | Х | Х  | Х      |
| _(8)                        |    |    |     |    |               |   |    |    |     |   |    |        |
| Provide an opportunity to   | х  |    |     | X  |               | x | _  |    | Γ.  | X |    | x      |
| help/mentor each other (5)  | ^  |    |     | ^  |               | ^ |    |    |     | ^ |    | ^      |
| To connect with others in   | х  | χ. |     | x  | $\overline{}$ | x | ×  | х  | x   | Х | х  |        |
| the program (9)             |    |    |     |    | _ :           | ^ | _^ | _^ | _^ı | ^ | ^  |        |
| To obtain program           | Ε, |    |     |    | X             | Х |    | X  |     |   | Х  | Х      |
| information (5)             |    |    |     |    | ^             | ^ |    | ^  |     |   | ^  | ^      |
| To obtain information       |    |    |     |    |               |   |    |    |     |   |    |        |
| about courses and teachers  |    | 1  | . ! | 1  | X             |   |    | li |     |   | X  |        |
| (2)                         |    |    |     |    |               |   |    |    |     |   | IJ |        |
| To provide information for  |    |    |     |    |               | Х |    |    |     |   |    |        |
| potential students (1)      | 1  |    |     |    |               | ^ |    |    |     |   |    |        |
| To reduce feelings of       | Х  |    |     | X  |               | Х |    |    |     | Х |    | Х      |
| isolation (5)               | ^  |    |     | ^  |               | ^ |    |    |     | ^ |    | ^      |
| To reduce the feeling of    |    |    |     |    |               |   |    |    | Γ,  |   |    |        |
| fragmentation in program    |    |    |     |    |               | Х | X  |    |     | X |    | Х      |
| (4)                         |    |    |     |    |               |   |    |    |     |   |    |        |
| I would use the LLC Web     | Х  | x  | Х   | Х  | X             | Х | Х  | Х  |     | Х | X  | Х      |
| site (11)                   | _^ | ^  | _^  | _^ | ^             | ^ | _^ | ^  |     | ^ | ^  | ^      |

A consistent theme throughout the interviews was the hope that the LLC Online Community could facilitate the building of a support network for research and scholarship. One student said, "It would be useful to discuss our research areas, maybe we can help each other. We could do some mentoring, since it is so hard to get mentoring in our program." Another stated, "Someone may have the same interests, but I have no way of connecting with

them." Still another student chimed in, "...the single biggest problem with our program is that it lacks structure and particularly when it is a program with all of us working a zillion hours a week outside of our scholastic endeavor. This would be the perfect core place to pull everything together....but it is going to have focus, every single person in the LLC program should be fed everything through the site." As the conversations turned to building a support network, another student said, "...imagine you have a space to talk about problems with the Ph. D. or problems in finding your dissertation topic or problems with publishing and I see that someone is at the same step as me ... lets work together to motivate each other... to create a community" Another student summed it up, "...somehow this site has to become something that makes life easier as opposed to one more thing that we have to attend to. And that is why; I think if it is a central site that is really focused it will serve a need. That probably is our greatest need [because] we are all over the place."

Another student, who is not that comfortable with technology said, "What would motivate me is that there is a chat going on and I am missing out - like conversations, discussing stuff, because if it is just information, I don't want more information."

Table 4 contains the suggestions made for getting the LLC students to use the online community site. The dominant theme here is to market the site, either by linking it to the existing LLClist (33.3%), using the LLClist to inform and remind the LLC students and faculty about the online community site and what is on it (33.3%) or by making people use the online community site rather than the LLClist as the primary means of communicating program information (33.3%). In addition, students felt that the LLC student community should take a more active role (41.6%) in the redesign and maintenance (33.3%) of the online community site. There were three persons (25%) who suggested seeking funding to support the online community site from the department.

Many students said that they did not know about the site or only heard about it once and then nothing else was said or done, they all had many suggestions for marketing the site. The idea that came up most often was tying the LLC site to the LLClist. One student said, "So, if we had said lets move this whole list and link it to the site...' another student interjected, "Right, then it is coming out of the site..." The first student continued "...then I think people would be more prone to go to the site itself."

Another student said, "I strongly suggest you link the LLClist to it."

Table 4: Suggestions for getting LLC students to use the community

|   | Α        | В | С        | D | E  | F | G  | Н | Т        | П  | К               | Т   |
|---|----------|---|----------|---|----|---|----|---|----------|--|-----------------|-----|
| Suggestions                                       | -        |   | Ť        | _ | -  | ÷ | .~ | - | ÷        | <del>                                     </del> | <del>- ``</del> | -   |
| A discussion board for                            |          |   |          | - | _  | - |    |   | -        | _  |                 |     |
| students only (1)                                 |          |   |          |   | X  |   |    |   |          |  |                 | ļ   |
| Two discussion boards: one                        |          |   |          |   |    |   |    |   |          |  |                 |     |
| students only & one for                           | ĺ        |   |          |   |    |   |    |   |          |  | X               |     |
| anyone (1)  |          |   |          |   |    |   |    |   |          |  |                 |     |
| Link to other universities                        |          |   |          |   | χ  |   |    |   |          | Γ  |                 |     |
| with similar programs (1)                         |          |   |          |   |    |   |    |   |          |  |                 | L   |
| Directory for LLC faculty &                       |          |   |          |   | Х  |   |    |   |          |  |                 |     |
| staff (1)   | <u>L</u> |   | <u> </u> |   |    |   |    |   |          |  |                 |     |
| Market the site (4)                               | X        |   | _X       |   | X  | X |    |   |          |  |                 |     |
| Use the LLClist to inform                         | x        |   | х        |   | х  |   |    | x |          |  |                 | ١., |
| students about the site (4)                       | Ľ        |   |          |   |    |   |    |   |          |  |                 |     |
| Put up a page for each LLC                        |          |   |          | Х |    |   |    | l |          |  |                 |     |
| student (1)                                       | _        | _ |          |   |    |   |    | Щ |          | _  |                 |     |
| Include information about                         |          |   |          |   |    |   |    |   |          |  | ļ               |     |
| how and where to publish                          | X        |   |          | X |    |   |    |   |          |  |                 |     |
| (2)   | _        |   | _        |   | -  |   |    |   | _        |  |                 |     |
| Provide a support space for                       |          |   |          | Х | Х  |   |    |   |          |  |                 |     |
| writing the dissertation (2) Link to the American |          | _ |          |   | _  |   |    | _ |          | <u> </u>   |                 | _   |
| Research Association (1)                          |          |   | Х        |   |    |   |    |   |          |  |                 |     |
| Have a workshop on how to                         | -        | - |          |   |    |   |    | Н | _        |  |                 |     |
| access/use the site (2)                           | X        |   |          |   |    |   |    |   |          | X  |                 |     |
| Show/tell people how to                           | -        | Н | _        |   | H  |   |    |   | -        | -  |                 |     |
| contribute to the site (3)                        | X,       |   |          |   |    |   |    | Х |          | X  |                 |     |
| Link the site to the LLClist                      |          | - | -        | - |    | - |    | - |          | -  |                 |     |
| (4)   | X        |   | X        |   |    | X | Х  |   | ١.       |  |                 | İ   |
| Use LLC students as                               |          |   |          | _ |    |   |    |   | -        | $\vdash$   |                 |     |
| resources to make the site                        | X        |   | X        | x |    | Х |    | Х |          |  |                 |     |
| work (5)  |          |   |          |   |    | ! |    |   |          | <b>\</b> '                                       |                 | l   |
| Use LLC students as                               |          |   | _        |   |    |   |    |   | Г        | $\vdash$   | _               |     |
| resources to maintain the                         | X        |   | Х        | Х |    | Х |    |   |          |  |                 |     |
| site (4)  |          | _ |          |   |    |   |    |   | <u> </u> |  | _               |     |
| Get people to post the site                       | х        |   | х        |   | χ. | Х |    |   |          |  |                 |     |
| instead of the LLClist (4)                        | _^       |   | ^        | _ | _^ | ^ |    |   | L.,      |  |                 |     |
| Get funding form the                              |          |   |          |   |    |   |    |   |          |  |                 |     |
| Department to support the                         | X        |   | X        |   |    | X |    |   |          | ŀ  |                 | l   |
| site (3)  | L        | L |          |   |    |   |    | L |          | L  | L               |     |

Marketing the online community was clearly a major concern, one of the students who had never been to the site said, "Well see, for one, I don't think there was enough information about that...about the actual online community because I didn't know about that until you mentioned the request the other day. And if I had known about that, I am sure that I would have gone and checked out what it was and I would have liked to be part of it."

The students who were interviewed felt that we need to get more people involved in revitalizing and maintaining the online community. One student told me, "You know Diane, I was thinking about when you were saying, how if different people were giving something of themselves, like bringing something into the creation of the online community, that is really a community." A

comment by another student drew a lot of supporting gestures and head nodding as she said, "Why don't we cooperate, it is the only way to get anything done. One person alone you cannot do anything."

# 4. Summary of users' problems

The respondents in the study could be grouped into two major categories: Those who never visited the site and those who visited once and never went back. The participants, who never visited, indicated a variety of reasons for not accessing the site: 41.7% had technical problems either with the URL or the interface, 33.33% did not know about it and 16.7% did not have enough technical knowledge to access it. From these percentages emerge three good reasons why the site was not successful:

- Technical problems related to the site.
- · Lack of aggressive advertisement.
- The group with no prior technical knowledge was not taken into account.

In the second group, the participants visited the site once and never went back. The reasons for not going back were numerous and equally distributed. The most important reasons given were lack of content and feedback, some technical problems encountered, the site did not feel like a community, and most important of all, they did not know the purpose of the site.

From the above observations, the findings of this study can be grouped under the two broad headings: issues related to usability, and issues related to sociability. Under usability, where almost the first group fits, there are the technical problems students encountered when trying to use and access the LLC Online Community site that included problems finding the site, links that did not work, the apparent lack of content on the site for many first time users, embedding the existing LLClist into the site, and a poor interface between the site and some students' computers/browsers. The other set of concerns falls under the domain of sociability, where the second group fits, and includes how students use the site, ways to contribute to the site, making students aware of the site, linking the site to the existing LLClist, deeper involvement of the LLC students in site development and maintenance and departmental support for the site. Appropriate marketing strategies for the online community must be developed and implemented with the participation of the LLC student group. It was clear that the students interviewed not only felt that an online community site was needed and would be useful to students, but they also felt that an online community could help ameliorate the major problem with the interdisciplinary program, a weak academic and scholarly support network.

It is clear from these findings that a communitycentered design was not enough to sustain the community. The failure of the site could be attributed to lack of depth in its implementation, even though the users were polled and surveyed, the design did not go deep enough in implementing the findings from the questionnaires. It was introduced too soon to the community, and follow up design modifications were not implemented. The community needed an active moderator, one that did more than post a question every now and then. The topic of the discussion should be well thought out, well implemented and considered with the community members in mind.

Based upon the current study, the site was restructured and redesigned. Every detail of the community-centered design was considered and implemented. The members are encouraged to participate and are regularly polled for their opinion and encouraged to give an input, in the design, content, and policies.

This is an ongoing project, and the new community is still in the early stages of its new inception, but early results are encouraging.

### 5. Plan to revitalize the community

In order to revitalize the stalled community the following plan of action was recommended and later implemented:

- The LLC site was redesigned and links are constantly being tested, the students are directed on how to use the site for easy access, and the discussion board redesigned and assigned a new active moderator every week.
- A moderator is assigned to give feedback and to update the content of the site on daily basis.
- The existing LLClist listserver is linked to the LLC community site and the LLClist should include a signature that has the URL for the LLC site.
- The site is being aggressively advertised by the program director.
- Technical instruction will be provided to the members who need it.
- 6. The purpose of the site is clearly stated and broader in its scope than the previous one.
- The Department should be approached about funding to support the refinement and maintenance of the existing LLC site.

# 6. Conclusions

It is evident from our study that if you build it, they will not necessarily come. Online communities are complex, and establishing a site is a daunting, involved, but satisfying task. The design of the web component matters; what is pretty to one group might not be to another (Powazek, 2002). The purpose of the community is important, but it should not be so narrow, as to only include a handful of members (Preece, 2000). A community-centered design is important; the members should have input into what may be good for the community. Furthermore, policies should be implemented to avoid flaming, and misconduct by some members.

From our findings, an academic community consisting of doctoral students and faculty requires a more academically oriented design. Members were concerned about completing research, and staying in contact with other members in the group. Connecting with others could help with research ideas and minimizes the feeling of isolation. Even though, these ideas were taken into consideration, the community did not strive. The community needed more input from an active moderator and from faculty members.

Once the whole gamut of what constitute a community is considered, one has to hope that the members are willing to invest; time and effort in nurturing the new environment, and therefore the developers and moderators have to make it worthwhile for them to come, and to stay.

#### 7. References

Berg, B. L. (1998). Qualitative research methods for the social sciences (3<sup>rd</sup> ed.). Boston: Allyn & Bacon

Hochheiser, H., & Shneiderman, B. (2001). Universal Usability Statements: Marking the Trails for all Users. *Interactions*,8 (2) 16-18.

Kim, A. J. (2000). Community Building on the Web, Berkeley: Peachpit Press.

Powazek, D. M. (2002). Design for Community. Indianapolis: New Riders.

Preece, J. (2000) Online communities: Designing usability, supporting sociability. Chichester: Wiley & Sons.

Preece, J., & Maloney-Krichmar, D. (2002). Online Communities: Focusing on Sociability and Usability. In J. Jakow & S. Sears (Eds.), *Handbook of Human-Computer Interaction*. Mahwah: NJ:. Laurence Erlbaum.

Preece, J., Rogers, Y., Sharp, H., Benyon, D., Holland, S. & Carey, T. (1994). *Human-computer interaction, Harlow:* Addison-Wesley.

Shneiderman, B. (1998). Designing the user interface: Strategies for effective human-computer interaction (3<sup>rd</sup> Ed.). Reading, MA: Addison-Wesley.

Simpson, M. (1990). How Usability Testing Can Aid the Development of Online Documentation. *Annual ACM Conference on Systems Documentation* (pp. 41-48). New York: ACM Press.

Yin, R. K. (1994). Case study research: Design and methods (2<sup>nd</sup> Ed.). Thousand Oaks, CA: Sage.