



Distributive Collaborative Community: The Weblog Initiative

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Distributive Collaborative Community: The Weblog Initiative

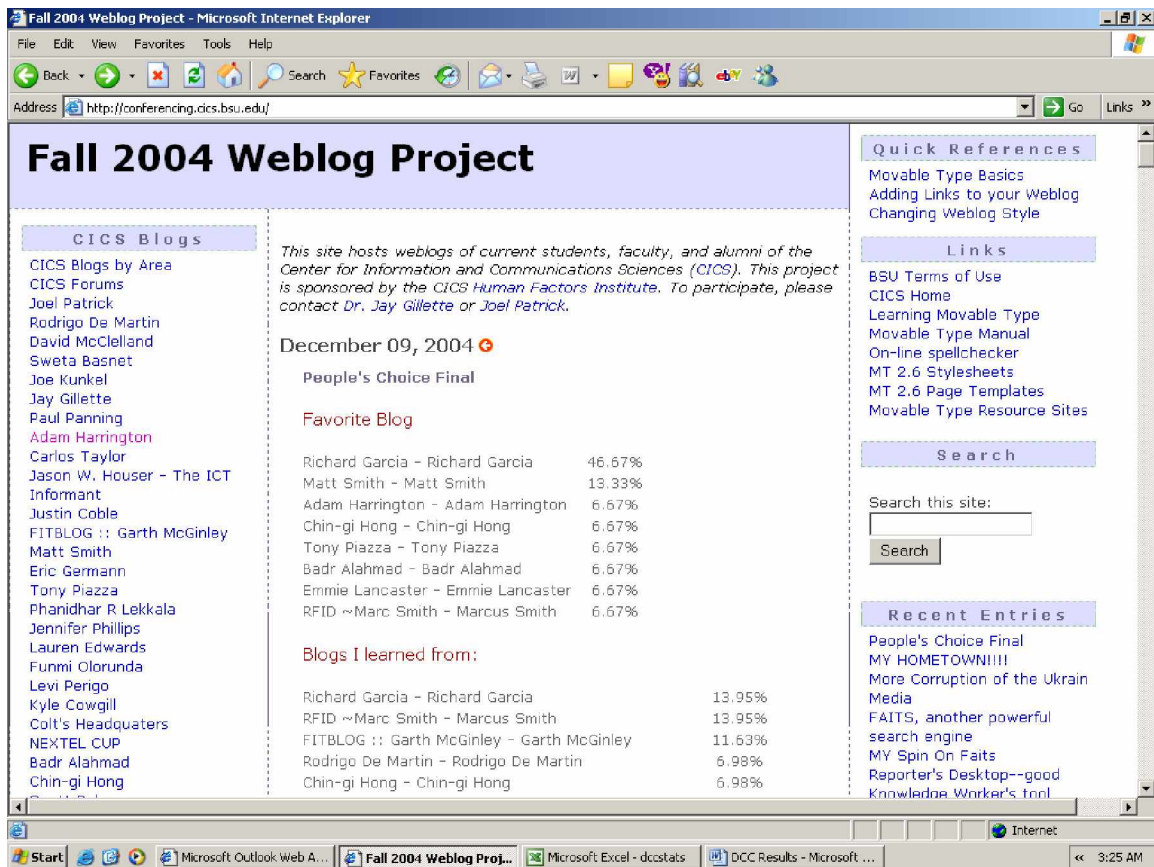
Introduction

Over the last decade, the most significant development in the field of communication is the expansion of the World Wide Web as a household information tool. As a result of this expansion, communicating with someone on the other side of the world is just as easy as communicating with someone sitting next to you. However, this vast amount of information exchange brings with it several problems, not the least of which is the potential for communication overload. In order to help quell this problem, several software tools have been created that manage a confined community which allow for communication dispersal throughout the globe. The Human Factors Institute for User Centered Design, Development, and Deployment (HFI), a part of the Center for Information and Communication Sciences (CICS) at Ball State University (BSU), continues to do extensive research on these initiatives which are known as Distributive Collaborative Communities (DCC).

DCC is an ongoing HFI project that has evaluated in various iterations how communities work within online constructs. The past volume of work and the future potentials for DCC within the HFI research agenda constitutes the main body of Best Practices Research for DCC, with the addition of other compendium work that is covered in the Best Practices segment of this document. The main topic of this body of work examines how the use of weblogs within the community of peers within the CICS academic unit added value to the communal sense of the peer group.

The Weblog Project

For the Fall 2004 academic term, HFI is taking advantage of a continuing project initiative taking place in one of the courses in the CICS curriculum. As a part of this class, ICS 602: Human Communication, students are required to keep and maintain their own weblogs, one DCC tool that has gained much attention and usage of late. HFI is utilizing this course requirement in order to facilitate the study for the Fall term.



- Current ICS 602 weblog project user interface

Awards

In addition to its testing of the usability of the weblog project, the DCC team also monitored content and participation. At the conclusion of the semester, several awards were handed out to participants who created notable weblog entries. The awards received

included: a “People’s Choice” Award, Best Form, Most Innovative, Best International Blog, and ICT Blog, Most Active, Best Writing, and Most Interesting Content, among others. Overall, the participation in this assignment was very positive, and the award nominations were well deserved.

The Award selection process was governed by the input of members of the DCC research team, the input of CICS Alumnus and DCC Consultant Mr. Joel Patrick, and the input of ICS 602 instructor Dr. Jay Gillette. The Award process falls outside of the main scope of the DCC weblog survey project but does provide further depth and insight into the weblog experience for those who participated.

DCC Research and Analysis

Best Practices Research

As discussed in the introductory text, Distributive Collaborative Community is a long term construct in which multiple research endeavors have existed and will continue to exist. Previous DCC research within HFI has established that “Communication within an organization, particularly a government entity or large corporation, is very difficult and can never be perfect or run as smoothly as possible. For this reason, it is very important to have efficient tools available to those within an organization so they can communicate well with their clients and fellow employees.” (Lassiter et al 2004; Appendix 2) Previous DCC efforts have examined collaboration through software tools such as Lotus QuickPlace and Groove, as well as evaluated client practices and recommended best practices for the Muncie Sanitary District.

In the context of how weblogs make an effective DCC tool, Matthew Klam wrote in the New York Times on 26 September 2004 that “more than two million Americans have their own blog.” Klam’s work suggests that bloggers are altering the face of journalism and political commentary much in the fashion of conservatives and talk radio, only now it is the left-leaning commentators that dominate what has grown to be known as the “blogosphere.”

Blogging has shown benefit for those wishing to broadcast a view point to a large, geographically diversified constituency. The DCC team designed a research study to analyze how the principles of blogging would play out in a group that was neither large nor geographically diverse. How would blogging fit into the dynamics of a group of peers? This is what the DCC team outlines in the following pages and appendices.

Hypothesis - *In a peer group, weblogs enhance community and collaboration.*

The hypothesis tested in this experiment was the result of a constant evolution of ideas and concepts, and was ultimately decided based on a multitude of discussions by both DCC team, HFI, and faculty advisors. There is a great extent of difficulty in crafting a research design to examine such intangible concepts of community and peer relations, thus the need for a carefully crafted approach. Our hypothesis, “*in a peer group, weblogs enhance community and collaboration,*” is the result of much work and deliberation, and as a result of this work, the DCC team feels that it most accurately represents the broad thematic implications of communal collaboration across a distributed medium. Based on this hypothesis, the survey was then designed to test the key parameters of community and collaboration.

Methodology

The DCC team reviewed several options in order to determine the best possible methods for measuring this hypothesis. As the research design is non-experimental in nature (no variable manipulation). The research team selected a self-reporting survey format, providing convenience for ease of implementation and participant anonymity. The survey population consisted of both ICS 602 sections participating in the weblog project, and the sample represents the actual number of survey respondents.

The survey consisted of 17 questions composed of yes/no, ranking, likert scale, and open-ended questions to receive as much qualitative and quantitative data as possible. Two versions of the survey were created and made available in two stages. The first version, a hard-copy, was presented to each of the two ICS 602 sections along with an explanation of the project and the DCC team's intentions in regards to their responses. The survey population was then instructed to either hand their completed survey to a DCC team member for tabulation. One week following the initial distribution, a course-wide electronic mail was issued, offering a link to an online version of the survey. Individuals who had not yet participated were offered 3 to 4 days to complete this second version. After the window of survey implementation passed, both online and hard-copy surveys were then compiled in a Microsoft Excel spreadsheet and evaluated.

Survey Results

Of the 41 students solicited for participation, 24 submitted responses, and a rate of return near 58 percent. The DCC survey results presented a significant amount of data and an informative perspective on how well the ICS 602 weblogs were received by

students. The following section details the questions found in the survey, as well as the responses. Currently, only initial statistical interpretation of the collected data has been conducted. The DCC team will continue to evaluate the results into the Spring academic term of 2005.

Question Analysis

Question 1: *How many times per week do you read other posts from your classmates?*

Response	Percent Response
0	16.6
1 to 2	50
3 to 4	25
5+	8.3

This question was created to determine the frequency of weblog use from 602 students. These results rest on a variety of factors including the academic value students placed on the project as well as overall project interest.

Question 2: *How many times per week do you post comments after reading weblogs from your classmates?*

This question is similar in value to the first question, but was designed to query the level of interaction users have with the application. The results indicated 62.5 percent never posted comments after viewing a weblog entry. Not a single respondent indicated posting comments 3 to 4, or 5+ times per week.

Response	Percent Response
0	62.5
1 to 2	37.5
3 to 4	0
5+	0

Question 3: *Please rank 1-6 your preference of weblog categories, with 1 indicating “highest interest” and 6 indicating “lowest interest.”*

Category	Response Mean
Business Related	4.1
Sports	3.3
Information Technology	3.2
General	3.6
Life	2.9
Countries and Cultures	4.0

A core element of distributive collaborative community resides in the establishment of common interests. The DCC team believes that the establishment of interests between weblog participants entices further use of the program, and the sample survey indicated a similar level of interest distributed across a wide variety of categories. These categories were adapted from weblog administrator Joel Patrick’s method of weblog organization.

The response mean was calculated by tallying the total number of points assigned to each category by the survey participant, with a response of “1” representing one point, a response of “2” indicating two points, and so forth. These totals were then divided by the 22 respondents (though 24 surveys were returned, 2 failed to enter appropriate data for this question), resulting in the response mean. Therefore, lower mean scores indicate higher levels of interest.

CICS is a technologically oriented department and it is expected that Information Technology scored well among survey respondents. However, due to the cultural diversity of the program, it is unexpected that Countries and Cultures ranked fifth.

Question 4: *Has the weblog project revealed a common interest with a peer?*

Response	Response Percentage
Yes	70.8
No	29.2

The survey results indicated that weblogs have revealed information about participants which may not have become available through any other format. This is a signifier of increased communication and community. Both of these subjects are of key interest for this query.

Question 5: *Has a weblog post become a point of conversation between you and a classmate?*

Response	Response Percentage
Yes	78.3
No	21.7

This question was directed towards communication, and an overwhelming response may perhaps indicate the increase of communication among colleagues, and it is also possible that these conversations may lead to future collaborative efforts.

Question 6: *Do you feel you have learned something about your classmates/colleagues through the weblog project that you would not have learned otherwise?*

Response	Response Percentage
Feel Negatively - 1	4.2
2	8.3
3	37.5
Feel Positively - 4	50

Question 7: *Do you feel that the weblog project enhanced your ability to communicate with peers in ICS 602?*

Response	Response Percentage
Not Interested - 1	16.6
2	12.5
3	37.5
Very Interested - 4	33.3

The responses to Question 7 seem contradictory, as communication-based responses to the previous questions indicated a high amount of weblog-based conversation and the revelation of a common interest.

Question 8: *Has the weblog project increased your sense of community within ICS 602?*

Response	Response Percentage
Yes	79.2
No	20.8

Community is a critical keyword found in our hypothesis the positive return of almost 80% “yes” responses is a significant indicator the weblogs power to enhance community.

Question 9: *Have you used the weblog experience as a resource for work or collaboration with a peer?*

Response	Response Percentage
Yes	25
No	75

An overwhelming majority reported no collaboration regarding the weblog project, and this may be attributed to the overall functionality of the weblog format. The inability to share and edit documents/comments greatly restricts collaborative work efforts, and is the likely culprit regarding these negative results.

Question 10: Open-ended question – results displayed in the Open-Ended Questions Analysis.

Question 11: *Would you participate in the weblog project if it were not a course requirement?*

Response	Response Percentage
Yes	59.1
No	40.9

This question was created to assist in the assessment of the overall attitude towards blogging. This area of measurement showed slight improvement (indicated by Question 12), and this may be attributed to a variety of factors.

Question 12: *Will you post a weblog entry after the project ends?*

Response	Response Percentage
Yes	65.2
No	34.8

Question 13: *Please rate your interest in the weblog experience prior to the ICS 602 project.*

Response	Response Percentage
Not Interested - 1	41.6
2	33.3
3	8.3
Very Interested - 4	16.6

The DCC team attempted to measure the interest of the weblog project prior to and after the ICS 602 experience. Questions 13 and 14 clearly illustrate the improvement of the survey sample's position on this method of collaboration.

Question 14: *Please rate your interest in the weblog experience now.*

Category	Response Percentage
Not Interested - 1	12.5
2	16.6
3	45.8
Very Interested - 4	25

It is difficult to attribute these results to a particular source. It is possible that student's acquired a sense of responsibility to participate in blogging throughout the ICS 602 course, or they may have discovered a topic of interest in a blog, increasing their interest in the potential of the weblog collaborative tool.

Question 15: *What is your gender?*

Category	Response Percentage
Male	87.5
Female	12.5

The purpose of this question was strictly to define the sample to the audience pursuing this document. No correlation can be established between gender and responses, as only 3 of the 24 returned surveys indicated a female gender.

Question 16: *What is your age?*

Category	Mean Response
Age	26.5

The ages indicated by the survey sample indicated that a majority of participants rest in the lower-to-mid twenties category, with the lowest age response at 22 and the highest at 55. The 55 year-old response was an outlying result, 16 years above the second highest age entry.

Why the relative tight grouping of age? The survey population resides in a graduate level course, so it is expected that the majority of participants were of similar age. However, this type of academic setting also caters to individuals returning to academia to continue their education. This has resulted in the minor variation of ages as represented in the full results diagram located in Appendix B

Question 17: Open-ended question – results discussed in the Open-Ended Question Analysis.

Open-Ended Question Analysis

Of the 24 responses to our survey 16 people said that the weblogs revealed a common interest between them and a colleague. These interests ranged from fitness to technology. Thus, indicating that by using the weblogs these 16 people gained an enhanced knowledge about their colleagues that they may not have gotten otherwise.

Thirteen of the 24 participants indicated that weblogs have become a topic of conversation with a colleague at least once. Several participants indicated that they often engage in conversations fueled by topics found within the weblogs.

Almost all of the 24 participants indicated that weblogs did not help them in any way with their work or research. Several suggested that if the weblogs had the capability to share files it would have made them much more useful for collaboration. However,

four of the participants did find creative ways of using the weblogs as a tool for doing work and/or research.

Exactly half of the survey participants said that they would have participated in the weblog project had it not been an assignment. Among those that said they would participate the unanimous feeling is that weblogs are a great way to express your ideas as well as read the ideas of your colleagues, which in turn aided in building a sense of community. Of the half that said they would not participate in the weblogs if it wasn't an assignment ten people said that it was due to a lack of time while the other two people just did not have interest in weblogs.

Ten of our participants said that they would continue to post in the weblogs after the assignments was over. Most enjoyed the added sense of community that it provided and wanted to continue that experience. The other most common reason for people to continue posting was the fact that they wanted to further develop their topics.

Several of our 24 participants left additional comments about the weblogs. The majority of these comments were positive with one comment stating "It has greatly helped me to communicate with my classmates and the society in general. I also believe I have been able to affect lives positively." Overall, from the response, our participants seemed to have split feelings about the weblogs. However, most of the people that did not get as much out of the weblog assignments indicated that they have severe time constraints. The CICS course of study is typically taken in an "on cycle" environment in which students take a rigorous, overload graduate course load and complete the 38-credit hour Master of Science graduate degree within 11 months. Perhaps if those participants

who felt as if they did not get enough out of the experience had less of a demanding schedule they would have gotten as much out of the experiences as the others.

Problems in the Testing Process

Throughout the term, the DCC team came across three major problems. The first problem was the development of a testable hypothesis. The second problem was the development of an appropriate survey that provided question correlation. The third problem was finding a method of statistical analysis which adequately evaluated the validity of the hypothesis.

HFI knew that they wanted to do a study on the weblog project. However, the early steps of the research process proved to be one of the most challenging aspects of this project. The research team found the process of developing a usable hypothesis to be a complicated issue. The nature of the project did not lend itself to be easily tested. As a result, it was several weeks into the term before a well-founded hypothesis was created. Another problem in this process was defining key terms.

Eventually, the research found a breakthrough in this process. It was clear that in order to find a testable hypothesis, the research team had to breakdown the key function of weblogs in society. This more than anything else led the team to the hypothesis that was eventually tested.

Throughout the process, the research team discovered a second challenge. This time, the problem was the survey method. The creation and distribution of a survey that would adequately test the hypothesis was a trial for several reasons. One challenge for the team was to put forward a questionnaire that was technically accurate, yet at the same

time easy to read for participants. Another problem that arose was ordering the questions in a way that drew the participants into the survey.

After much consultation and collaboration, the research team eventually put forward a survey that was suitable for public consumption. Time constraints played a key role in this part of the process as the survey was released when time was getting short.

The last stages of the process presented another tribulation for the research team. Using an analysis method that adequately relates the statistics to the hypothesis is essential in any research project and choosing the right one can be very difficult. The research team found this to be the case as there was much data that had to be tabulated quickly. The resolution to this problem was to use Microsoft Excel spreadsheets in order to organize the data. The results could be tabulated and calculated using this system as well. The biggest insufficiency in Excel was its inability to tabulate question correlation. The DCC team does feel that this text gives a strong overview of the project. The data presented here represents our preliminary findings as of the time of publication (10 December 2004). It is the metaphoric tip of the ice berg of the totality of the data collected and of the overall DCC construct, which generates much future potential for DCC research.

DCC Future Potentials

As discussed in the introductory segments of this text, DCC is a construct for research within the Human Factors Institute for User Centered Design, Development, and Deployment. The weblog project represents just one facet of this work. A future means for the DCC team will further the research of how people collaborate over a distrusted network by further analysis of DCC tools and synthesis of the compendium of DCC research from the previous iterations of Distributive Collaborative Community research.

As people become more mobile in their lives and in their work, distributive collaboration becomes increasingly important. We feel that this need is helping to fuel the bright future of our distributive collaborative community research. HFI's research team recognizes this need and feels that the next logical step in our research should be to evaluate the usability of these collaboration suites. Some such suites include Lotus QuickPlace, Intranets collaboration suite, and Groove Networks Virtual Office. The HFI team also has interest in open source and freely accessible tool suites, such as other blogging platforms and toolsets such as Yahoo! Groups.

The goal of this next iteration of DCC is to evaluate usability and usefulness of these tools on their own merits and in competitive analysis against one another. Additionally, the construct for continued DCC work in the Spring and Summer 2005 academic terms is to synthesize the various DCC project iterations to examine how tools can foster collaboration, enable a greater sense of community, and do so across a distributed network that overcomes barriers such as geography, distance, or environmental, as well as generate a Best Practice guide for those who wish to utilize such tools in their organizations.

Conclusion

In CICS, outcomes-oriented activity is one of the values shared throughout the program. HFI, as a part of CICS, cherishes the outcomes it produces. The outcome that this research team has delivered for this study is very telling. At the present time, the results indicate the support of the research team's hypothesis. However, a more rigorous statistical analysis is required to add knowledge value to these findings. As part of the larger DCC construct, the team believes these findings will add much to the synthesis of DCC work and the Best Practice guide the team intends to produce.

HFI sees the expansion of DCC initiatives to be an integral part of its function as a usability testing institute. That is why this study was so important to the institute this term. As DCC programs grow and more people are exposed to the benefits of these initiatives, HFI will continue its study and offer knowledge value of these resources in years to come.

Appendix A: Open-Ended Question Response Directory

Question 4: *If the weblogs have revealed a common interest with a peer, what was the common interest?*

Question 5: *Has a weblog post become a point of conversation between you and a classmate? If yes, how often does this occur?*

Question 10: *How has the Movable Type system supported or limited your work?*

Question 11: *Would you participate in the weblog project if it were not a course requirement? Why or why not?*

Question 12: *Why or why not would you post a weblog after the project ends?*

Question 17: *Please share any comments or ideas regarding the weblog experience in 602.*

Responses

Participant 1:

Question 4: Did not answer

Question 5: Did not answer

Question 10: Did not answer

Question 11: No...I don't think weblogs are interesting

Question 12: I don't like weblogs

Question 17: needs to be mandatory

Participant 2:

Question 4: Did not answer

Question 5: Only in Class

Question 10: Did not answer

Question 11: Yes, It is a good place to express your ideas and get a lot of people to read it.

Question 12: It is important to maintain the relationships with your peers whether or not you still work together.

Question 17: Did not answer

Participant 3:

Question 4: Did not answer

Question 5: Yes, once or twice

Question 10: Did not answer

Question 11: No, not much free time

Question 12: Continued discussion of topic

Question 17: Did not answer

Participant 4:

- Question 4: That many people are into sports that I didn't know.
- Question 5: Once or twice a week
- Question 10: Did not answer
- Question 11: No, it isn't that interesting for me as a diary although I like to read others.
- Question 12: Just because
- Question 17: I enjoy Rich Garcia's blog.

Participant 5:

- Question 4: Cincinnati Sports
- Question 5: Yes, once a week
- Question 10: Did not answer
- Question 11: Yes, because it provides me with a sense of community
- Question 12: Look at it
- Question 17: Very good project to get people together

Participant 6:

- Question 4: Interest in learning about other cultures and countries
- Question 5: Yes, one to two times a week
- Question 10: Did not answer
- Question 11: Yes, I didn't know about it before
- Question 12: I will continue to update my weblog because it makes me focus on an area I am interested.
- Question 17: Did not answer

Participant 7:

- Question 4: Did not answer
- Question 5: yes
- Question 10: Did not answer
- Question 11: No - I may read some occasionally but would not write my own.
Also, I tend to read more academic pieces.
- Question 12: It is a chore to post them now.
- Question 17: Did not answer

Participant 8:

- Question 4: Did not answer
- Question 5: Yes, not too often (maybe 2 or 3 times)
- Question 10: Did not answer
- Question 11: No, it takes time that I would use otherwise.
- Question 12: Did not answer
- Question 17: While some blogs are interesting or informative, most are not, and I can find something else to do with the little time we have.

Participant 9:

- Question 4: Fitness
- Question 5 Yes, once a week
- Question 10: Did not answer
- Question 11: Yes, It's a good way to express your ideas
- Question 12: It's a good communication tool
- Question 17: Did not answer

Participant 10:

- Question 4: Big fans of sports, racing in particular
- Question 5: No
- Question 10: Found Information for a paper
- Question 11: Yes, Run
- Question 12: Possibly
- Question 17: Did Good idea - Also a very good idea to allow students to choose their own topic.

Participant 11:

- Question 4: Technology
- Question 5: Yes, Often
- Question 10: I have interviewed classmates and posted information
- Question 11: Yes, it is a great way to Learn about each other
- Question 12: Did not answer
- Question 17: Did not answer

Participant 12:

- Question 4: Interests in other people's lives and hobbies
- Question 5: No
- Question 10: Did not answer
- Question 11: Yes because I feel weblogs are a good communication tool
- Question 12: Cause I have my own weblogs on another site
- Question 17: Did not answer

Participant 13:

- Question 4: Culture and countries
- Question 5: No
- Question 10: Did not answer
- Question 11: Yes, it helps to communicate my ideas
- Question 12: It will continue to help me relate my ideas to the world
- Question 17: It has greatly helped me to communicate with my classmates and the society in general. I also believe I have been able to affect lives positively.

Participant 14:

- Question 4: Social events outside CICS
- Question 5: Very often, we discuss daily blog posts.
- Question 10: Supported 620 group project we used it to post portions of our paper and resources to use
- Question 11: Depends...I feel I don't have time to fit it in
- Question 12: Time constraints
- Question 17: Did not answer

Participant 15:

- Question 4: Dream interpretation, interview
- Question 5: Yes, not very often
- Question 10: Did not answer
- Question 11: Waste of time
- Question 12: Did not answer
- Question 17: Did not answer

Participant 16:

- Question 4: Dietary knowledge
- Question 5: Yes
- Question 10: Helped for easy communication, but can be a tough tool in terms of privacy.
- Question 11: Yes, I enjoy sharing and listening to others
- Question 12: I enjoy posting as an outlet
- Question 17: I think the weblog has been a great supplement to the class, but I would like to see it incorporated in class a little more often

Participant 17:

- Question 4: Fitness
- Question 5: Yes, whenever Rich makes a post
- Question 10: Did not answer
- Question 11: Yes, but possibly not every week. It helps us learn about each other and have some fun work.
- Question 12: Just to keep something to get to know my peers better.
- Question 17: Did not answer

Participant 18:

- Question 4: Tech information
- Question 5: one week
- Question 10: Did not answer
- Question 11: Now, yes. Enjoy sense of community
- Question 12: Did not answer
- Question 17: Did not answer

Participant 19:

Question 4: Did not answer
Question 5: Did not answer
Question 10: Did not answer
Question 11: Lack of time
Question 12: Not sure
Question 17: Did not answer

Participant 20:

Question 4: Did not answer
Question 5: Did not answer
Question 10: Did not answer
Question 11: Did not answer
Question 12: Did not answer
Question 17: Did not answer

Participant 21:

Question 4: Did not answer
Question 5: Did not answer
Question 10: Did not answer
Question 11: Did not answer
Question 12: Did not answer
Question 17: Did not answer

Participant 22:

Question 4: International interests
Question 5: Did not answer
Question 10: Info Renaissance site esp. MT system limited by lack of
functionality in posting documents (would be good to use a DCC
system like Quick Place)
Question 11: Did not answer
Question 12: Keep up with the project
Question 17: Did not answer

Participant 23:

Question 4: Yes, I met others who were interested in sports
Question 5: Did not answer
Question 10: Moveable type does not permit the sharing of documents; this was
not a good thing
Question 11: Lack of time as well as interest
Question 12: I will retire, leaving only my legacy behind
Question 17: Did not answer

Participant 24:

Question 4: Others are interested in my topic as well

Question 5: Did not answer

Question 10: Did not answer

Question 11: I like sharing my knowledge with others and gaining knowledge
from them in return

Question 12: It's a good time. My favorite time of year with regards to my topic is
in the early part of the year

Question 17: Did not answer