

Having Fun on the Access Grid: Building Informal Relationships through “The Beer Symposium”

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Introduction:

During the Autumn 2001 academic semester, The University of Montana, the Arctic Region Supercomputing Center and the Albuquerque High Performance Computing Center delivered a shared college course in High Performance Computing across the Access Grid, with the intent of creating a virtual, geographically distributed classroom. Initial technical glitches were such that the hoped-for “community” did not develop at the beginning of the semester, and students seemed a bit shy of the technology for the remainder of the course. Instructors felt that some sort of social activity, apart from the formal class, might help to bring students together, but nothing really materialized. Experiences garnered in this attempt to build a true virtual classroom led to broader thinking of how people might build communities across the Access Grid, culminating in the decision to launch a “fun event” related to beer and simply observe what happened in terms of human and technological issues in the context of “having fun” in informal activities over the AG. Access Grid technology has many of the characteristics listed in the literature as important for building strong social ties in a group – it is a persistent public space, it allows for simultaneous multiple users with different interaction styles, and it supports real-time interaction. The beer symposium was designed as a preliminary step towards investigating whether or not Access Grid technology can be used to create and maintain informal social connections (the interpersonal relationships necessary for both building community and creating effective distributed teams) by acting as a space for conviviality.

Based on the assumptions that having fun can contribute to the development of strong informal social ties, and (perhaps more importantly) that the Access Grid will some day be used for more than just science, technical, and business collaboration, the goals of “The Beer Symposium” were simply 1) to see if there was an interest in this kind of fun event on the AG, 2) to begin to figure out how to put together an event that is based on having fun instead of doing work - fundamentally a new way of using the AG, with different requirements for event organization and participation, and 3) to set the stage for more exploratory ethnographic (anthropological) research on the use of the AG for non-work-related activities. We wanted to use this symposium as a way to gauge whether or not we will be able to do more of these kinds of things in the future, so we can begin to answer such questions as: What kinds of relationships are formed through the use of the AG during non-work related events? How can the AG be used to facilitate the creation and maintenance of informal social bonds? What components of the AG are essential to both having fun and the formation of informal relationships? How and why are these components necessary? What other technologies could be added to the AG to enhance the social experience? If the AG is to serve more than a purely formalized medium of exchange of ideas, all of these questions (and many more) need to be explored.

Background:

Humans are social animals – we look to others for support, affiliation, and affirmation (Donath 1996). In our socializing, we build various kinds of communities: we can associate with those who like to do what we like to do (creating communities of interest), we can create bonds with those who are striving toward the same goals as we are (creating communities of purpose), we can network with people who make their living in the same way we do (creating communities of practice), and we can build social capital with those who are experiencing the same things in

life as we are (creating communities of circumstance) (Marathe 1999). In both geographical and virtual communities (or on-line communities, or electronic communities, or cyber-communities), such as the ones just described, the essential element to the creation and maintenance of community bonds is enabling the interpersonal connections that are fundamental to feeling like you are a member of a group. Indeed, the ability to build strong social ties with others is often viewed as one of the defining factors of "community." (See, for example, Wellman and Gulia 1996.)

Throughout the literature on virtual communities, authors talk about the differences between the types of computer-mediated communication, and how this affects the relationships that are built (see, for example, Turkle 1998). Indeed, multiple authors argue that strong social bonds are created and maintained in chat rooms and multi-user dungeons (MUDs) especially (see, for example Dibbell 1998, and Rheingold 1998). But "there have been few detailed ethnographic studies of virtual communities..." (Wellman and Gulia 1996), and there have been even fewer ethnographic studies of the creation and maintenance of informal relationships in the video-mediated environment, because research in video-mediated communication has been focused primarily on formal work activities.

There is, however, some information on what communication technologies and applications researchers *believe* influence the development of strong social ties. Many of them have to do with attempting, somehow, to recreate a feeling of "presence" in the computer-mediated environment. For example, Jenny Preece, who wrote an entire book on facilitating on-line communities (Online Communities: Designing Usability, Supporting Sociability), writes "Social presence, or more particularly lack of social presence, can critically influence how people behave online, form impressions of others, and negotiate common ground..." (165).

Judith Donath argues that a social environment requires "exchanging cues and social information, observing the appearance and behavior of others," (<http://smg.media.mit.edu/people/Judith/Thesis>). The most important aspect of technology for community building, as far as Donath is concerned, is that it supports a wide range of interactions and relationships. Another interesting viewpoint on creating technology that facilitates the formation and maintenance of strong social ties comes from Mynatt et al. who argue that to support community the technology must be persistent, support multiple interaction styles, support the capability for real-time interaction, and be multi-user. From this perspective, the key to creating community is creating webs of personal relationships, so the technology must facilitate the formation and maintenance of a "group." The ability to network, or interact, with multiple people simultaneously is a primary factor. Similarly, Quentin Jones from the Hebrew University of Jerusalem argues that to facilitate group identification and cohesion, a communication technology must promote interactivity, it must allow for a variety of communicators (more than two), the communication space must be a common public space, and there must be sustained membership (www.ascusc.org/jcmc/vol3/issue3/jones.html).

It used to be that we could only look to those in our geographic communities for belonging, but through the rapid advance of technological communication devices, we can now look much further afield. We are looking not just to the people who used to live around us, we are also looking across the country and across the world. It is in this context that virtual on-line communities become separated from geographical communities, and become much more dependent on technology for their facilitation. Much of the current literature about virtual on-line communities can be divided into 3 main topic areas: 1) whether or not these on-line groups can really be defined as communities, 2) what the social impact of on-line communities is, and 3) what enabling technologies and applications can be used to facilitate a "feeling" of community. The major question that links these three topic areas seems to be the following: Can we make strong intimate ties through technology? Each of the three main topic areas in the literature on virtual communities is dealing, somehow, with this question. But even in distributed work, informal interpersonal relations are vitally important. Establishing a high performing team requires informal social interaction, including, but not limited to trust development, the stimulation of cohesiveness, the formation of a sense of shared responsibility, and the creation of common ground (see Hellreigel, Slocum, and Woodman 1998; Bellotti and Bly 1996; Fussell, Kraut and Siegel 2000). Interpersonal and informal relationships that foster collaboration often come "naturally" with face-to-face interaction, but developing these relationships is much more difficult

when team members are not collocated (Mackay 1999; Ackerman 2000). While project teamwork is being accomplished across distance, there are a number of drawbacks to distributed collaborative work, such as low individual commitment, role ambiguity, and communication delays and breakdowns (Teasley et al. 2000; Jarvenpaa and Leidner 1998). Technology that contributes to the development of strong informal interpersonal connections, then, is not only appropriate for community building, but also creates a productive atmosphere for doing effective collaborative work.

The Beer Symposium:

The planning for “The Beer Symposium” was a challenge. We spent a great deal of time asking ourselves: How do we resolve the inherent tensions in trying to plan a “party” where we have to give the “party-goers” a common focus? And, how do we have an informal event at which people cannot just mingle with anyone they want to? We found these questions very difficult to answer, and we ended up asking for participants to volunteer to stimulate discussion through brief “presentations.” But then the question became: How do we juggle the focus on “presentations” (because we expected these to provide the basis of informal discussion), and the desire to make the symposium as informal and fun as possible? We decided to prohibit use of power point slides (based on a common Motorola cultural belief that power point slides means “formal distribution of information”), and the word “presenter” was stricken from the vocabulary in favor of words like “contributor” or “participant” in order to reinforce the idea that they were there to stimulate discussion. We knew it was still going to be a struggle, however, to balance the formal aspects of people talking in sequence about one topic, and the informal aspects of attempting to stimulate “natural” conversation about the topic in a “party-like” atmosphere. Thinking we might need to stimulate conversation we developed a list of general topics to bring up should there be a lull in the conversation.

Once we had decided what we wanted the symposium to be like, we had more questions: How do we communicate our desire to “do something fun on the AG” to the rest of the AG community? How do we get people interested? Advertising the symposium on the AG tech list provided a number of lessons, one of which we should have learned long ago – be very clear when you are being sarcastic in e-mail. We asked for abstract submissions, believing there were enough cues in the e-mail to indicate that we were joking (including suggesting bribes of beer), but people took us seriously (though not so seriously that they sent the beer). We had to assure people that we did not want abstracts, and simply wanted people to come, and wanted some folks to volunteer to talk. Once we indicated that we were joking about abstracts and stressed the informality of the event, we got more people interested in “presenting” at the symposium. Another lesson was that we needed to “advertise” and ask for participation through means other than the AG tech list. We got a fairly good response from people on the list who were interested in attending, but most “presenters” came from outside the AG community. And scheduling across time zones was also a problem – while interest in attending was expressed by AG members in several countries, only people from the U.S. and Australia showed up. People in England and Italy, while intrigued by the symposium, were not in a position (because of the arranged time of the event) to join. The final lesson was simply to relax...we realized that we had no control over attendance, and as with hosting any “party,” we would just have to “wait and see” who came, and how it would go.

The event commenced in an atmosphere of rowdiness and festivity and, immediately, audio issues were apparent. For the most part, people were interacting with others at their own sites but, since microphones were turned on, attempts to actually communicate across the AG became fruitless due to the high background noise of festive participants at their own sites. The “appearance” was of a bustling bar scene, and, much as in a “real life” bar, the reality was of separate groups each making their own noise. But it was impossible to pick out threads of conversation from the different sites. Audio signals were mixed together, uncoupled from location, so that, unlike being in a real life bar, one could not simply “tune in” to particular conversations to hear what was going on. Individual conversations were not distinguishable, inhibiting the kind of natural interaction between groups that usually occurs in real life, and reinforcing the boundaries between sites. In other words, no one could comment on something said in another group (group, here, referring to an AG node site), because it was impossible to

hear the conversation. Not only were audio problems apparent right from the beginning – network problems were experienced as well. The University of Montana site had to leave the venue and return in order to fix their audio machine.

Ten AG node sites ended up participating, with multiple attendees at each site (in some locales 5 to 6 people were present at the beginning of the symposium). The audience dwindled as the night wore on, but this was expected. The event was held on a Friday night, the day after Valentine's Day, and a couple of people had to leave because they had "Valentine's dinners" to go home to, while others simply needed to get home to their families. One site was having network troubles and eventually gave up trying to attend. Most people, however, stayed for the entirety of the symposium, and were not in a rush to leave after the last scheduled speaker was finished.

The first participant, president of Big Sky Brewing Company, was engaging and appeared to keep the audience's attention. He spoke briefly about the history of the company, and the beers that they brew, and fielded a number of questions about how much beer the company brews, the experience of going from home brewing to professional brewing, ordering t-shirts with the "Moose Drool" logo, and a number of others. This participant brought with him a poster – an advertisement for one of their popular beers ("Moose Drool") – and held it up to the camera, for other attendees to see. At this point another limitation of AG technology for this kind of event became apparent...the participant was relying on the node operator to position the camera so that the poster was visible, centered, and zoomed in appropriately. Simply holding up the poster was not good enough – when he held up the poster, he was prevented from seeing the window at his node, so he did not know what the poster looked like to the people at other sites. The lack of being able to simply "show" something, without the need for formalized control over the viewing window, potentially diminishes the air of informality of the event. Also, audio at the Missoula site (where the president of Big Sky Brewing Co. was located) was breaking up, detracting from the experience for those at other sites, and causing node operators to go into a "technical" mode of problem solving rather than staying in an "informal mode" of "having fun." This participant talked and answered questions for close to 30 minutes and while he was keeping the audience's attention, we worried that some attendees might get restless, or impatient with the pace – especially since there were 8 more scheduled "contributors," who could also stimulate lengthy conversation. We decided to cut the discussion short and asked for the second participant to step in.

The second participant was a University of Montana (UM) faculty member, who spoke about beer ingredients and recipes. He was also engaging the audience, but "local" discussions between UM participants appeared to distract slightly from the overall global community feeling. Still, there was sufficient outside interaction. A lot of the AG-wide discussion about beer and brewing was somewhat technical in nature, leaving part of the audience, who did not understand the lingo, out of the loop. The dynamic of discussion is significant because in a "party" where all attendees are co-located, side conversations spring up naturally between those people who are not fully conversant in the topic at hand, or who are not interested in the topic at hand (these side conversations can even be dropped – to rejoin the primary group once the conversation turns). But in this situation, where some attendees at a specific AG site were brewers and others were not, side conversations were more difficult. Two people at different locations (neither interested in the answers to the questions being asked) could not start their own side conversation. Instead, any side conversation that occurred had to occur between people at the same site. Instead of the AG technology making it easier to have informal interaction between distributed attendees, the conversation ended up being more localized.

The spontaneous nature of the event led to a shifting in the scheduled order of "participants" and a home brewer in North Dakota (NDSU) presented a live demonstration of the steps in making beer. Both the equipment used, and the ingredients used, were highlighted. The NDSU folks are to be commended for their ingenuity and willingness to push the limits of AG technology by attempting such a live demonstration and, it went remarkably well. The cameras had to be manipulated constantly during the demonstration – to zoom in on ingredients and equipment, as well as to follow the demonstrator as he moved. Again, the attendance of the node operator became accented, and their role highlighted as a formal one. Furthermore, around this time, attendees started to become restless at the various sites, engaging in private

conversations, fairly removed from the central activities of the event. Eventually, the MUD came alive with calls from apparently restless attendees to keep the show moving. Indeed, during the entire event the MUD was a form of distributed chat between non-co-located participants – but primarily node operators and others conversant in AG technology had this capability. Those of us on-line also used e-mail to “talk” to non-co-located attendees, as we attempted to chat with others at remote sites.

After the NDSU “participant” finished, the distributed crowd had grown more restless, and keeping the event together was becoming more of a challenge. A participant from the University of Illinois talked about Trappist beers, and then a participant from Argonne elicited a wide range of attendee comments, often inciting laughter, by talking about why he likes beer and why he started home brewing. The video from UM went down again, but all of the sites could hear them. Instead of waiting for them to bring back their video feed, the participant at the University of New Mexico was asked to continue with his scheduled activity – singing beer drinking songs. This created an uproar, and again audio issues became apparent. However, the songs were much appreciated and applauded, and he was even successful at getting others to sing with him for the last song. The symposium ended, over two and a half hours after it started, as the crowd became more rowdy, and their conversations increasingly narrowed to their own co-located groups.

Analysis:

After the event, attendees at The University of Montana (UM) were asked informally for their feedback. The consensus amongst the UM student attendees was that there were many similarities to the “real bar” experience – some people drank, some people were rowdy and, in general, the mood was at times a little loud and raucous. One student commented that, just like in a real bar, rowdier people tend to dominate the conversation and activities. All UM students commented very favorably on the uniqueness of the activity, saying that it was, in many ways, like a Friday afternoon happy hour, but that the crowd was more intelligent. There was tremendous excitement in interacting with people from around the world. Hence, it appears that students definitely enjoyed the chance to meet people they would not normally meet at their local, typical, Friday afternoon watering hole. One SC Global veteran from UM favorably commented that he had never been in such an interactive session on the AG, raising the notion that, indeed, this was a new paradigm for the AG community, worthy of additional exploration. On the MUD were comments about how much fun people at different sites were having, and a question about getting an AG node in a “real bar.” One, more “objective,” indication that people were engaged in the symposium was that we did not have to artificially stimulate discussion through the use of pre-arranged topics and questions. More positive feedback came from the length of time people stayed at the event.

We believe one of the most difficult problems to overcome in planning such an event is balancing the need to bring people together for a “reason” (having a formal focus to the event in order to motivate people who don’t know each other well to attend) and the desire to maintain informality and a sense of conviviality (in order to keep it “fun”). Perhaps trying to strike a balance was the wrong approach – there were clearly attendees with a serious interest in learning about beer, and there were those with a serious interest in partying. Just as in the real world, this kind of combination of desired outcomes inevitably leads to conflict. We attempted to walk a fine line between formality and informality, thus leaving the possibility that when a part of the event was at odds with attendee expectations, it could create restlessness. Restlessness was especially apparent during one particular portion of the symposium. The home brewing demonstration at NDSU had initially been viewed as a cornerstone of the symposium, given its hands-on nature but, it came an hour into the event and followed two long presentations. There were some that were “riveted” to this demo, and it is still not clear whether it was the timing of the demo or conflicting expectations that played a role in the restlessness of some of the participants.

Technological issues were also highlighted by this event. A number of attendees, in side conversations during the event as well as after the event, commented on the problems they had following the conversations that were going on at remote locations. While people wanted to “talk all at once,” and indeed did do this, audio capabilities limited the capability of people at the different locations to hear the conversations at other sites. Audio came in from all sites at once, and there was no associated “directionality” pointing to which words came from which site,

preventing conversational “threads” from emerging. An associated problem with the video and audio portion of the AG technology is that it does not adequately support “side conversations” (conversations that the entire group is not meant to hear) between non-co-located attendees. It is apparent that this kind of interaction needs to be supported. Illustrating that this kind of “side conversation” is something people find useful and desirable, is the fact that various side conversations using alternative technologies originated...e-mail was used for coordination, and to make comments on how the symposium was going, and the AG MUD was used to have conversations not only about the technology and glitches, but also to “talk” about the participants. The fact that supplemental technology was sought out to provide a means of having side conversations indicates a need for technology that all attendees at a site have access to, so they can “talk” with others who are not at their same site, and do this without disturbing the entire group.

Discussion:

Facilitating collaborative activities, whether as part of a community or part of a work team, often means creating and maintaining connections that help people feel like they are part of a group. To get people who are located in different geographical areas to feel like they are part of the same group is often difficult, and relies on blurring the boundaries between the distributed groups – getting the groups in the various locations to feel like they are part of the one larger group, instead of isolated smaller groups. The perception of “my group” as distinct from “other groups” is reinforced when there is little chance for interpersonal interaction between groups, thus the perception of boundaries between groups could possibly be reduced by allowing cross-group side conversations. Side conversations did seem to be occurring within the groups at each site during the symposium, but restricting side conversations to those who are co-located (intentionally or unintentionally) reinforces boundaries between locales, instead of blurring them. The people who were using the MUD to engage in cross-group side conversations already feel like part of a larger distributed group (the Access Grid community). The key is providing a means for other people who use the AG to engage in similar kinds of conversations and interactions with those outside their local group. Even with the ability to engage in side conversations, however, the characteristics of the audio may inhibit group formation and cohesion. When multiple people are talking at once on the AG it is very difficult, if not impossible, to follow the conversation. It is possible that this characteristic of audio on the AG – requiring turn-taking in order to have understandable conversation – could so interfere with the perceived “naturalness” of multi-user communication (in cultures where turn-taking during informal interaction is not the norm), that it prevents informal social interaction between groups at different sites from ever developing.

But the beer symposium already showed that mapping from “real life” spaces to virtual spaces is feasible, and that people act similarly to the way they would in “real life” when they are using the AG. In many ways, the crowd at “The Beer Symposium” acted like they might in any drinking scenario. People started off friendly, had some attention span, but eventually “the group” became less cohesive and splintered, mostly into “local” groups. It is possible, however, that this “splintering” was produced by the limitations of the technology to facilitate cross-group interaction. More research is needed. We did show that organizing an event such as this is possible, and that people can have fun interacting informally on the AG. We believe that “The Beer Symposium” was a fruitful beginning, in the attempt to bring more “fun” to the Access Grid, experimenting with its usefulness as a technology to foster informal interpersonal relationships, and learning how the AG can serve as a group-to-group binding mechanism for a broad array of geographically distributed activities. Furthermore, participating in “The Beer Symposium” gave us some ideas for future events – a “happy hour” (the same kind of event, but less “presentation” and more just “getting together” and “getting to know each other”), and a “virtual sports bar” (where people from different locations get together on the AG and watch a game on TV). If informal relationships cannot be built across the AG, it will never become a place to simply “hang out” and meet people and have fun. But we believe informal relationships can be built over the AG, and that future events will illustrate this.

Conclusion:

This “beer event” was the end result of a broader desire to use the AG for activities far beyond the traditional science and technology applications. We believe the Access Grid has the potential to deeply affect the way people interact in the future, providing heretofore-unimagined possibilities for building bonds and relationships among groups separated by vast distances. Building informal relationships is important not just for developing “friendships” – it is also important for good working relationships, community facilitation, and developing shared mutual understandings in the global village. Access Grid technology – because it is persistent, public, accommodates real-time group-to-group interaction, and permits different interaction styles – has the characteristics that are often cited as necessary for fostering strong informal interpersonal connections, and a sense of community. The Beer Symposium illustrated both the shortcomings of the AG technology and its usefulness for fostering informal relationships. Technological limitations, glitches, and missing pieces of technology hampered some of the interaction during the event, and still people had fun...they enjoyed the experience. This vividly illustrates how compelling the AG experience is – despite problems, people like it.

The AG has the potential to bridge distances in ways yet unseen, by supporting distributed “community activities.” One can envision, for example, virtual cultural exchanges across the planet and distributed “town hall” meetings for various forms of governance. Many of these activities do not fall into the formality required by current AG events and pose challenges yet to be addressed by the AG community. Clearly, the current mode of operation, centered on the presence of highly trained technical personnel, is not feasible for the large majority of distributed groups that might want to, simply, interact with others around the world but lack local technical expertise.

We believe that many of the requirements to facilitate non-technical interactions over the AG can be discovered by looking closely at fun, informal events such as The Beer Symposium. By launching a series of events like this, we can begin to explore previously unknown needs associated with distributed collaborations, and examine suitability and/or shortcomings in the technology related to the creation and maintenance of informal interpersonal bonds. The beer symposium was a wild plan – a “what happens if we try this” experiment – with no real guarantee of a “successful” outcome. Just from planning and participating in this event we learned a lot about the needs of participants engaging in informal group-to-group interactions over the AG, and about technology that might help satisfy these needs. We suggest that more rigorous research of such informal events would be beneficial to further our understanding of the usefulness and flexibility of AG technology for creating and maintaining community bonds. Through the refinements that come with the application of research findings, the Access Grid might just be the technology that will help groups across the world bridge the gap that comes with social and geographical distance.

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