Breaking the ice: Supporting collaboration and the development of community online

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Abstract

Abstract: This study explores the concept of *transactional distance*, a term coined by Moore (1993), which relates to the distance that exists in all learning relationships and can be more evident and potentially problematic in online learning environments. Reducing this psychologically perceived distance to help learners develop social presence in support of collaborative relationships and the development of community in online learning environments is the purpose of this research.

Icebreakers are fun activities that help people get to know each other. These activities can potentially ameliorate the perceived distance in online learning environments. Two author-developed icebreakers were used in a preliminary study involving university undergraduates and instructors in online environments. Respondents took part in an icebreaker at the start of a semester and at the mid-point after which they completed a questionnaire about perceived value of icebreakers. Early results were positive and have led to recommendations for practice.

Résumé: Cette étude porte sur le concept de distance transactionnelle, un terme inventé par Moore (1993), qui s'applique à la distance qui existe dans toutes les relations d'apprentissage et qui peut être plus apparent et éventuellement poser un plus grand nombre de problèmes dans des environnements d'apprentissage en ligne. L'objet de la présente recherche

consiste à réduire cette distance psychologique perçue afin de permettre aux apprenants d'entretenir une présence sociale en appui aux relations conjointes ainsi que d'établir une collectivité dans les environnement d'apprentissage en ligne.

Les techniques d'amorce sont des activités amusantes qui aident les gens à faire connaissance. Ces activités peuvent parfois améliorer la question de la distance perçue dans des environnements d'apprentissage en ligne. Deux techniques d'amorce élaborées par des auteurs ont été utilisées dans une étude préliminaire à laquelle participaient des étudiants universitaires et des instructeurs d'environnements en ligne. Les participants ont pris part à une technique d'amorce au début du semestre ainsi qu'à la mi-semestre, après quoi ils ont rempli un questionnaire sur la valeur perçue des techniques d'amorce. Les résultats préliminaires étaient positifs et ils ont donné lieu à des recommandations portant sur leur mise en oeuvre.

Introduction

Although online learning environment researchers disagree on a number of issues, few dispute the fact that developing and maintaining a sense of community is paramount to effective learning, and of interest to those who work and learn in the virtual world. This has not always been the case. Early adopters of online learning perceived the medium in a peripheral sort of way, more of an adjunct to the traditional classroom, a repository for lecture notes, additional resources, and a place where final marks could be posted. Collaboration and communication may have occurred with simple question and answer posts, but it was definitely not the focus of the environment.

The medium has certainly come a long way. Today we find that many learners prefer to work online, enjoying all the benefits that it entails, specifically the *anywhere, anytime* aspect of asynchronous online environments. It would seem that while learners flock to online learning, there appears to be a polarity of opinion among researchers as to whether or not online learning environments provide for the effective development of community. While many believe that online conferencing systems effectively support social learning theories and evolve into effective learning communities, others criticize them for not providing quality opportunities for collaboration and relationship building. In fact, much of the literature points to the need for redesigning the virtual classroom in an effort to develop environments that better support social presence, collaboration, and the development of a learning community.

It is important to remember that technology without other supports has not brought about a transformation in education, and that while technology enables us to quickly access, share, and amass knowledge, it does not automatically transform a group of learners into a community of learners. Collaborative and supportive environments must be developed through enhanced instructional design and facilitation skills.

For the purposes of this paper, we explore our topic based on asynchronous computer-mediated conferencing—one of the more common technologies found in distance education environments. According to Hewitt (2001), computer-mediated conferencing as an alternative to traditional instruction suggests that online environments "affect more than just the 'where' and the 'when' of course taking. They also change the nature of classroom discourse" (p. 208). We would add to this, that online learning also changes the very nature of relationships between learners. While online environments support learners in many ways, they can create problems for relationship building because of what has been called transactional distance.

Theoretical Framework

In the review of the literature, we have explored several concepts and theorists who have supported and contributed to the body of literature on communities of practice and the importance of the social aspect of learning. Moore's work on transactional distance, which emerged from Dewey's concept of transaction, provides the starting point for the background of this paper. Wegerif continued to build upon the topic of social connection and the importance of a community of learners and takes the concept into the virtual world of teaching and learning. Garrison, Anderson and Archer (2001) have built upon the groundwork laid by these researchers and have developed a useful model that provides a visual representation of the key aspects involved in supporting community. They demonstrate the connection between social and teaching presence, including that most important aspect of learning online; setting climate. The following provides a more detailed discussion by the main authors who have informed this study and provided the framework for a discussion of the importance of social presence online and on which our hypothesis about the usefulness of icebreakers is based.

Transactional Distance

Transactional distance is derived from Dewey's concept of transaction and was further developed by Moore (1993) to explain the distance existing in all learning relationships, both face to face *and* in distance learning. This distance is not necessarily defined and bound by geography, but relates more to how often learners interact with instructors, peers, and the learning environment. Moore went on to explore the three types of interaction essential in distance education: learner-instructor, learner-content, and learner-learner. Understanding the latter interaction, between learners, is particularly important as we move towards more constructivist and collaborative approaches to learning in online environments.

Although learners are often encouraged, and sometimes required, to work collaboratively the reality is that group work is problematic. While this is also true in traditional face-to-face environments it is exacerbated online by transactional distance. If learners are to be encouraged and supported in collaborative activities, we need to develop authentic and effective ways to assist them to connect with peers and to build relationships early on in online environments so that they are able to locate and connect with colleagues in relationships that work.

Our research involved exploring ways to reduce the transactional distance that learners experience while working online. We hypothesize that employing online icebreakers will: (i) help to mitigate the lack of connection between online learners, (ii) help learners to connect and to develop into communities much faster, and, (iii) support effective collaborative activities.

Background

Online learning has certainly come a long way in the short time that it has been a viable teaching and learning medium. Not that long ago, Mitchell and Kerr (2000) reported their surprise that communities of learners, were, indeed, developing in cyberspace. In the span of just a few years, we have come to expect that learning communities will develop and have begun exploring ways to facilitate their growth.

Members of a learning community need to work together to produce ideas and share responsibility for advancing the community's learning, develop relationships that support collaborative work, and specifically take on course assignments and work together on them. While online courses usually allow course participants to share a little about themselves, we generally find that these often brief introductions are insufficient in fostering an environment where members develop relationships with each other that support a sense of belonging and comfort. Ways in which learners are encouraged and supported to connect, and develop relationships with colleagues who have similar interests and/or compatible work habits, are needed.

In our face-to-face practice, we have used icebreakers extensively and find that they can be quite successful in assisting learners to develop collegial relationships and to help them to get to know each other early on in a course. Icebreakers effectively enable course participants to locate compatible colleagues with similar interests to support further collaborative work on assignments and projects.

There is, however, an important caveat to increasing the level of interaction between participants in online learning environments. Shin (2003) points out that by increasing interaction, student autonomy over determining when and where to learn could be jeopardized. This is an important message to those who design online learning. We have developed icebreakers that respect the importance of student autonomy and support the anytime, any place aspect of online participation. We believe that these activities serve to move learners towards an authentic learning community with a clear understanding of the interests, needs, and work habits of their virtual colleagues.

Developing Community

Online learning is vastly different from both face-to-face and traditional distance courses. Learners in face-to-face courses may naturally form relationships with peers and the instructor through verbal and visual cues, physical closeness, and shared time and experiences. These relationships provide learners with a sense of community, and thereby encourage the learning process (Hiltz, 1998). Contrarily, traditional distance education

courses require no contact with other learners and are completed in isolation and do not support constructivist-learning approaches in which experiences, knowledge and ideas can be shared. (Haythornthwaite, Kazmer, Robins, & Shoemaker, 2000). On the other hand, online learning, through asynchronous computer-mediated communication environments supports and encourages discussion with peers and the instructor. It does not occur in isolation; rather it relies upon collaborative learning and thus, in theory, supports the framework of a constructivist-learning environment (Stacey, 1999).

The peer-to-peer connection that online learning offers is instrumental for positive learning to occur. Learners must participate to expand upon their understandings. Wegerif (1998) contends that in order for students to feel comfortable in doing so, they need to perceive a social connection to the course. In other words, they need to feel as though they are part of a community of learners who share a common goal. A feeling of belonging to a community creates comfort and trust and encourages students to participate by sharing knowledge, asking questions and supporting peers (Haythornthwaite et al., 2000; Picciano, 2002).

Social Presence
Learning communities include participants with a wide variety of participation styles and degrees of involvement. Participants all contribute to the community's form including its depth and direction. Integral to every member in a community is the need for social presence. Rourke, Anderson, Garrison and Archer (2001) define social presence in online environments as "the ability of learners to project themselves socially and emotionally in a community of inquiry" (¶ 3).

Social presence is necessary for building and sustaining communities. Learners must be interested, motivated and take some amount of social risk to enter the course and participate. As they move from the periphery to becoming a central player, learners begin to build social presence and, in turn, enter into dialogue with, and enhance the community. The support received from within the community often encourages further learning and participation. In fact social presence has been found to be intrinsically motivating. Wang and Newlin (2002) state learner satisfaction in online learning is higher with "high levels of social presence" (¶ 21).

Learning communities must be built and maintained by the members themselves through sustained social presence. While instructors have the initial responsibility for building the foundation of the community by creating a positive and inviting atmosphere, both learners and facilitators need to take responsibility for the growth of a learning community. The facilitator sets the stage for the mood and tempo of the course as well as the type of correspondence desired (formality, length, etc.), however the responsibility for the growth of the community should transfer to the students as they become more involved and comfortable in the environment. Collaborative learning is learner-centred and as such interaction between members will form the personality of the community. However, facilitators remain an integral part of the process throughout the course. They encourage

discussion, set direction, share knowledge, and help to maintain enthusiasm.

Some people believe that communities will form naturally online over time. However, many undergraduate and graduate-level online courses usually run over a short time period of either four or eight months. If social presence and a feeling of community are important for learning to advance, course designers and facilitators must develop ways to create a community of learners early and help to sustain it throughout a course. Wegerif (1998) notes that participation in an online course is dependent upon high interactivity and recommends building "a sense of community through carefully structured exercises" (p. 46). One method of doing so could include designing various icebreakers, collaboration and interactive activities throughout the course to build initial connections, support continued interaction throughout the course, and provide a period of wrap-up and reflection.

Supporting Collaborative Work

There are several characteristics that change the role of the instructor in the online environment: changes in the balance of student-instructor participation, a move towards collaborative learning, and a shift from instruction to facilitation. Considering the experiences of the learner entering the learning environment for the first time and the impact this experience has on the learner, the initial communications in online learning environments play a significant role in the educational experience.

Additionally, the maintenance and reinforcement of this discourse as another significant factor in the support of learner experience is highlighted. A visual representation of the key items involved in supporting community is illustrated in Figure 1.

For our purposes, we will focus on the items most closely related to social presence and its connection to educational experience: supporting discourse and setting climate.

Learners in face-to-face courses have the advantage of verbal and visual cues, physical closeness, and shared time and experiences to aid in the development of social presence. In online environments these advantages are not naturally present, but rather must be fostered through the support of discourse and setting of climate. Many e-learning environments have been modeled after structures present in face-to-face experiences (Rovai, 2002). Garrison (1997) argues for the use of online learning as the most feasible and effective technology for achieving the ideals of a collaborative, constructivist approach to education at a distance, claiming that such a technology can support learners in the processes of "collaboratively constructing meaning and confirming understanding" (p. 3).

However, while the support of discourse is managed by the technology, which is responsible for containing and organizing communications, the setting of climate is largely the responsibility of the course facilitator. Through a balance of maintaining the technological integrity of the learning environment and the facilitator's efforts in setting of the climate, the development of social presence has a direct impact on the learners'

educational experience. An important distinction to make is that while online discourse is supported and managed through the technology, the course facilitator is responsible for selecting the communication tools for the environment. Regardless of the technology that supports the discourse in the online learning environment, there exists a human factor involved in the design of the setting and in selecting appropriate technologies.

The facilitator's ability to cultivate social factors could have a significant impact on the entire educational experience. As Kollock (1996) explains:

> The key challenges the Internet community will face in the future are not simply technological, but also sociological: the challenges of social interaction and social organization. This is not to diminish the difficulties of creating new technologies, but rather to emphasize that even these tasks will pale besides the problems of facilitating and encouraging successful online interaction and online communities (¶ 1).

While the focus has been on the technological challenges of the Internet community, an important point regarding the social implications also surfaces. If facilitators recognize the existence of social factors, and provide exercises and applications to help support discourse and set the climate, this may have a significant impact on the learning experience. Social factors such as the degree of support, connectedness and peer feedback have been found to be powerful determinants of success and satisfaction in online courses of study (Barab, Thomas, & Merrill, 2001). Wegerif's (1998) study of an online group of learners found that individual success related to the degree to which participants were able to cross a threshold from feeling like outsiders to becoming insiders. Hence, to facilitate crossing the "outsider-to-insider" threshold, we developed icebreakers to aid in the setting of climate and to develop social presence.

The following section highlights a sampling of various icebreaker activities that were particularly successful when employed in online learning environments. We have highlighted the icebreaker as a significant influence on social presence since it is usually the first communication that learners partake in.

Icebreakers

A facilitator's ability to foster collaboration and relationship building from the very beginning will aid in diminishing a sense of transactional distance, hence heightening the educational experience of participants. To assist in the building of social presence and minimize a sense of transactional distance, the use of icebreakers is recommended as a prospect for aiding in a positive education experience. In Appendix A, we provide five icebreaker activities that were particularly successful in online environments. Each may be used individually, in combination, or in modified versions to suit facilitator, learner and course needs. For the empirical research that was conducted to test our hypothesis, two of the icebreakers were employed with a group of Faculty of Education online university undergraduates.

The first icebreaker used for this research was "Hollywood Stars", in which students are asked to describe themselves by posting the name of an actor and/or a character and movie that they identify with so their colleagues can try to guess why the individual

relates to the movie character.

The second activity, "What do you do?" ask students to post three hyperlinks that provide clues regarding their profession or area of personal interest. As a means of becoming acquainted with each other, students pose questions to each other in an effort to identify the professions or interests of their virtual colleagues. Ultimately this activity provides insight into each other's backgrounds and interests, and gives a context to the group's experiences and expertise.

Research Study

In an effort to determine if there was merit to our hypothesis, one of the author's proposed and conducted preliminary research with a group of university undergraduates working online. This section examines how the concept of using icebreaker activities in online environments led to the development of the empirical questions that underpin this research. The research methodology, including details on research design, methodological assumptions and limitations, selection of subjects, and the research procedures are also described. Finally, the data are provided and interpreted here along with a brief discussion of the implications for future research.

Research Design

This research intended to determine if the use of icebreakers in online learning environments would be helpful in reducing the transactional distance between learners as well as help to develop richer social relationships in an effort to support collaborative learning environments. We asked online students and their professors to engage in icebreaker activities as part of their online work and then to share their perceptions of the value of the activities. This was done using a mixed-methods approach to the research. Quantitative results were solicited through the use of a questionnaire. Qualitative responses were volunteered by respondents sharing comments or ideas that emerged from their participation in these activities.

This research project was intended to determine if icebreakers would be helpful in bringing colleagues closer to one another. As this was a preliminary study it was felt that a quantitative approach using a Likert-type scale would be successful in helping to gather the bulk of the information at this early stage. Further, by asking participations to elaborate and by providing them with the opportunity to share any other perceptions helped us to determine whether the original hypothesis had merit and whether further research would be warranted.

Selection of Participants and Data Collection

University undergraduate students who work entirely online at a Faculty of Education participated in this preliminary research project. Participants were contacted at the beginning of the course semester and agreed to take part in the activities at the beginning and middle of the semester. In all, two professors and five students from two online courses volunteered and were chosen to take part in this study. It is important to note

that the body of respondents who participated in this study were solicited from groups of adult learners, many of whom are experienced educators. Well versed in the literature relative to adult education, the pool of respondents had a common career in teaching, although they also provided a well-rounded basis of response, coming as they did from a diversity of backgrounds such as formal post-secondary educators, trainers from private industry, and educational representatives from the medical field.

Respondents were asked to take part in two icebreaker activities. The first activity, "What Do you Do?" is explained in more detail in Appendix A. It asks the students to post three hyperlinks providing clues to their profession or areas of personal interest so that their virtual colleagues can try to guess that person's profession or interest. The approach used in this icebreaker is a creative way of sharing personal information. Furthermore, it encourages people to immediately post questions and gain experience working online while providing some insight into each other's backgrounds and interest. About half way through the semester, the second icebreaker activity was presented. In "Hollywood Stars" students are asked to describe themselves by posting the name of an actor or character and movie that they identify with and/or look like. The rest of the class tries to guess who the individual is or the title of the movie and responding to colleagues whose character or movie is not familiar generates contact among learners. Subsequent discussions can then focus on discovering why the actor or character might not be recognizable, perhaps due to the learners' age differences, different interests in movies, or because they come from different cultures.

Following both activities, the respondents were asked to complete a questionnaire composed of 10 items to rate their perception of the effectiveness of icebreakers in online environments. Each question asked the respondents to rate their response within 5 levels, ranging from strongly agree to strongly disagree. Respondents were also invited to make comments or suggestions that, in their opinion, would add to the research project.

Methodological Assumptions and Ethical Considerations

The purpose of the study was to determine professor and student perceptions of the effectiveness of icebreaker activities in online environments to reduce transactional distance, and to support collaboration and the development of community online. It was determined that not only should students take part in the research because it was *their*perception of the effectiveness of the activities in supporting their sense of community, but also the professors should take part in the study and share their opinions of how effective the activities were as they monitored and facilitated the online course.

All respondents were asked to volunteer in this study, and to sign an Informed Consent Form, which clearly outlined that their confidentiality would be guaranteed and that participation in the research would in no way affect their final grade in their respective courses or any subsequent courses in their program of study with the university. The researcher did not work with these volunteers during the study, and will not in the future.

Results

Questionnaire results were organized into two broad areas, developing community and supporting collaboration. Due to the small sample, the results of the questionnaires were tabulated manually. Specific quantitative questionnaire results can be found in Appendices B and C. All qualitative responses from both learners and facilitators is summarized in the body of this paper. In the following discussion the questions posed and a summary of the questionnaire results are provided; they are broken down into the two main areas of community and collaboration.

Developing Community

Five questions focused on determining the student's perception of the value of icebreakers in helping to develop community in online learning environments. Did participating in the icebreaker activity:

1. Help you to become more familiar with your online colleagues?
2. Make you feel more connected to a community of learners?
3. Help you to project who you are in the online environment?
4. Help learners to cross the threshold of outsider to that of insider and overall support the feeling that you were an important part of the learning community?
5. Seem like fun and add to the overall learning experience?

In all cases, the responses for both facilitators and students were fairly evenly distributed between Agree and Strongly Agree. Facilitators and students differed on whether they felt icebreakers would be helpful in crossing the threshold from outsider to insider. The responses were evenly distributed between Neutral, Agree, and Strongly Agree.

A student comment about the usefulness of icebreakers in online environments in establishing community stated that "I think that icebreakers in conjunction with other learning community-building tools helps develop the integrity of the learning community" (R2).

One of the online instructors commented on the experience,

> Prior to this experience I had not really considered the importance of icebreaker activities in online environments. We use them all the time in face-to-face environments. I can see now that they may be as important or even more important in the online environment to help develop the sense of community that will enhance the learning experience for all involved (R10).

Another use for icebreakers was suggested by this respondent in support of one of the elements that is often included in online environments, the cyber café which allows students with an opportunity to connect and share ideas and suggestions or even for casual conversation outside of regular classroom discussions and activities. However, this respondent points out that:

> While the use of cyber café's is important in online environments, what is seldom addressed is how to get those conversations started … the use of icebreakers would probably help kick start the conversation and assist in the development of the sense of community so essential to effective adult learning (R10).

Supporting Collaboration

Four questions focused on the issue of student's perception of how effective the icebreaker

activities were in supporting collaboration. Did the use of icebreakers:

1. Help you to develop a better working relationship with your colleagues?
2. Help in trying to locate a learning partner(s)?
3. Help people to get to know one another better than the usual self-introductions?
4. Help develop a sense of comfort working in the online environment?

Responses that dealt with supporting collaboration in online environments were also positive. The first and last questions had results that were fairly evenly distributed between Agree and Strongly Agree. The second question dealing with the use of icebreakers in locating a learning partner had respondents evenly distributed between Agree and Strongly Agree and one response as Neutral. The question dealing with the effectiveness of icebreakers in helping people to get to know each other was fairly evening distributed between Neutral, Agree and Strongly Agree with a slightly higher weighting on Neutral.

One learner respondent felt quite strongly about how effective these activities were in developing and supporting community, and commented thus:

> This exercise can certainly introduce people to each other in a more fun way–instead of reading a paragraph or two about someone. The activities influence your retention of information about others – very helpful in resolving conflicts in online environments. This activity helps people to get a bit closer which could break the barriers to taking risks online faster, thereby enabling participants to start connecting earlier in the course (R4).

Another learner respondent quite enjoyed the activities of the Hollywood Stars icebreaker:

> I loved the concept of identifying with a celebrity or characters. The Internet search was fun and allowed us to see some different areas of each other that we tend to gloss over in the introductions part of the class (i.e., peoples work environments) (R4).

One learner comment relating to the use of the icebreaker provided insight that the use of the activity might have further uses that were not originally anticipated within the scope of this research project. "I teach online and would love to use something like this to get the class motivated and manoeuvring around the course site and Internet" (R4). This comment, in conjunction with discussions with fellow online students and instructors, has served to spur some further thought about how icebreaker activities could be used in ways that benefit learners beyond the development of community and support of collaboration. These concepts will be discussed further in the following section.

Future Considerations

A respondent suggested a further use for icebreaker activities that emerged from the idea of developing community and speaks to how these activities could be effective in motivating and teaching people how to navigate the Internet. We posit that inviting students to take part in a fun activity that helps them to relax as they learn Internet search skills, and for those who are new to the online environment, might also help them to develop skill and confidence in learning how to post and respond to others. We have speculated on the use of icebreakers in several other avenues.

Another benefit we believe can be derived from the use of icebreakers will be in supporting an understanding of different cultures. This belief emerged from the icebreaker "Going the Distance" and "World Series". Although these icebreakers were not used in this study, these activities might be quite effective at exploring cultural differences that might be present in the group and others working at great distances. These online conversations could be effective at bridging the cultural and geographical distances of students working online. Cultural awareness is an important aspect of being able to work effectively online with people from diverse backgrounds and who have varying degrees of expertise in the language in which the course is run.

We believe that it is fruitful and valuable to develop more icebreaker activities that can be used to support learning about cultural differences and bridging these in online environments. It can be assumed that an activity to build cultural awareness can be quite useful in face-to-face environments as well.

Summary

Reducing the transactional distance between peers is an important aspect of community building in computer mediated conferencing environments. Our exploration of Moore's (1993) learner-learner dimension of interaction in distance education has lead us to conclude that ways need to be developed to help learners connect online in an effort to build community and to support collaborative work.

Through this preliminary research, we have explored the use of icebreakers in online learning environments to enhance the development of community and collaboration. We have found icebreakers to be quite effective in face-to-face practice and explored whether this would extrapolate to the online environment. It was our contention that the usual self-introductions common in asynchronous online learning as a means of connecting learners do not go far enough to intentionally support relationship building. We postulated that icebreakers such as the ones offered above, would allow learners working at a distance to make connections, learn about each other, and encourage the development of trusting relationships. These relationships would then support collaborative learning and constructivist learning environments.

In creating icebreakers we believe it is important, and have strived to ensure, that the examples presented were fun, simple and not time consuming. It is important that icebreakers are inclusive and sensitive to cultural differences, do not require advanced technology skill, and are mindful of online learners right to maintain their anonymity (for example, personal information such as pictures are not mandatory). Finally, it is important that their use maintains the asynchronous anywhere, anytime participation.

Based on the positive findings from this preliminary research, we recommend that icebreakers be used at the beginning of a course and/or during a switch in groupings within a course. Icebreakers should not be assessed but rather used purely as a team-building

exercise. If possible, facilitators should provide learners with a brief reasoning behind the activities including some references to literature discussing the importance of community building and collaboration.

Conclusion

Preliminary research using two of our icebreakers in online undergraduate courses appears to support our hypothesis. Employing icebreakers in online learning environments fills a need for developing a welcoming climate and promote social presence online. The ability [of learners] to project themselves socially and emotionally into the learning community, according to Rourke et al. (2001) and Wang and Newlin (2002), is necessary for building and sustaining communities. Finding ways to build interest and motivate learners to participate and to build a sense of community need to be developed and employed in an effort to support learners and help them to move to higher levels of connectiveness, effective relationships, increased learner satisfaction, and ultimately, enhanced learning opportunities.

While it has been mentioned that increasing the level of interaction between peers has the potential for jeopardizing student autonomy in online environments, we have found through our teaching and this research that learners readily accept and understand the benefits of participating in unrelated course activities. It is certainly a human characteristic to want to connect and learn about our peers, and we have found that the informative and fun aspect of icebreakers serves this need for connection.

It should be noted that one of the limitations of this study is the small sampling. Few online professors and students volunteered to take part in this research and there is always the danger that those who did choose to participate felt a positive sense of the use of using icebreakers and that might have led them to participate. Additional research is required with a much larger body of respondents, particularly in view of the fact that the preliminary results were overwhelmingly positive. Early results are encouraging. However, it is premature to extrapolate these initial positive results to the online population in general.

In conclusion, we have found that employing icebreakers in online learning environments is a step in the right direction and is particularly effective in helping communities form right from the conception of a group of online learners. This is particularly important where learners are expected to participate in any sort of group or collaborative work. The ability to seek out compatible colleagues to collaborate with on projects throughout the duration of a course could be greatly influenced by the ability to align oneself with counterparts who share common goals, values, and interests. Using icebreakers as a means of building social strengths in an online community also aids individuals in finding suitable partners for collaboration.

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Appendix A
Going the Distance

To set the stage for the icebreaker the course facilitator contacts students prior to the beginning of the course and requests that students provide a digital picture of themselves (if providing a digital image of themselves is not feasible or desired participants can supply something that is representative—it could be a graphic, digital self portrait, a cartoon, etc.), their geographic location, and provide a link to a web site that is meaningful to them. The link could be to a personal web page, to a site they visit often, or to a site that demonstrates a hobby/interest. The facilitator then plots a map that roughly represents each student's geographical distance from the physical campus and links each student's location to the picture, geographic location, and web address information each student has provided.

In an effort to get to know one another students are asked to interact with the map and gather a sense of where their colleagues are located and to encourage dialogue, students are directed to make contact with three colleagues who are positioned the furthest away from their own location on the map and then use chat and/or email to connect with their selected peers.

A benefit of the approach is that students are provided with a visual representation of the distance that separates them and immediately work at building relationships with those that are furthest away from their location. Considering the concept of transactional distance, identifying the remoteness of contributors and providing an exercise that works to identify the physical distance that could lead to communications gaps, and plotting a map of learner locations may aid in limiting the perception of psychological space effecting perceptions of proximity learner. Additionally, as students explore the information provided by their colleagues, insight into the differences and similarities between learners will also become more apparent.

Hollywood Stars

In organizing this icebreaker the course facilitator creates a discussion forum where students are instructed to describe themselves by posting the name of an actor/character and movie that they identify with and/or perhaps look like to the bulletin board. Responding to colleagues whose character/movie is not familiar generates contact

between participants. Students may ask their colleague to post a URL where a picture of the actor who played the role, movie review, advertisement, or screening can be viewed. Discussion should focus on discovering why the actor/character is not recognized (possible answers: there is a large age discrepancy between the two students, the students like different kinds of movies, or they come from different cultures).

A benefit of the approach is that students who do not wish to share a genuine picture of them likely would not object to providing the name of an actor that they identify with; a sense of anonymity will be maintained. Hopefully, students with diverse interests and varying backgrounds will be brought together.

Liar, Liar
The course facilitator creates a discussion forum where students are instructed to post two truths and one lie about themselves and everyone tries to figure out what is true and what is not.

The hunt for truth is a good way to generate a lot of discussion and community building amongst contributors. This exercise also gives everyone the opportunity to take part in some creative story telling. Given the vulnerability of really knowing who is on the receiving end of communications, this exercise reminds contributors of the vulnerability in a faceless medium and brings to the forefront the importance of creating a trusting, supportive environment.

What Do You Do?
In this activity the facilitator creates a discussion forum where students are instructed to post three hyperlinks that provide clues regarding their profession or interest and their colleagues try to guess what the profession or interest is. Participants can be as creative and imaginative as they would like in providing their clues for their profession or interest. As a means of becoming acquainted with each other students can pose questions to each other regarding the selection of the site in an effort to identify their professions or interests.

The approach used in this icebreaker is a creative way of sharing information usually shared to varying degrees by the participants in their introduction to each other. The information provided will give students insight on their peers' backgrounds, interests, and give context to the group's experiences and expertise. Participants will learn about each other by reaching out to each other and engaging in discourse with one another.

World Series
The course facilitator contacts students prior to the beginning of the course and requests that students choose a part of the world that holds significance for them. Using the information, the facilitator plots each student on a map image of the world and posts the information to the bulletin board.

Contributors are asked to explain why the city/country is of significance for them and post

the description to the bulletin board. Postings may highlight cities that students have visited in their travels, possibly a student-exchange program that they have taken part in, a part of the world they currently reside in for international students, or maybe a country their families might have emigrated from.

Identifying the parts of the world that are of significance to participants may aid in expressing any cultural differences present throughout the group. This approach will help define what is significant to each student. A benefit of the approach is that students share information about past, present, and/or future experiences in an effort to create connections.

Appendix B
Facilitator questionnaire responses

Questions to do with **developing community**

#1. Did you find that the icebreakers were effective in helping l learners to better develop collegial relationships?

Strongly Agree 0 Agree 2

#6. Do you think that icebreakers helped learners to develop social presence (the ability of learners to project themselves socially and emotionally in a community of inquiry)?

Strongly Agree 0 Agree 2

#7. Do you think that the use of icebreakers helped learners to cross the threshold of outsider common in online environments to that of insider, that is an important part of the learning community?

Agree 1 Neutral 1

#9. Do you feel that the use of the icebreakers helped to make the online environment a bit more fun and overall added to the learning experience?

Strongly Agree 1 Agree 1

Questions to do with **supporting collaboration**

#2. Do you feel that the icebreakers helped your learners to develop and support better working relationship with their online colleagues?

Strongly Agree 1 Agree 1

#5. Do you feel that the icebreakers helped your learners to develop and support better working relationship with their online colleagues?

Strongly Agree 1 Agree 1

#8. Generally, do you think the use of icebreakers would be helpful for learners to develop effective learning partner relationships?

Strongly Agree 1 Agree 1

#3. Do you think that icebreakers were helpful in getting a better sense of your online learners and in helping you to build effective relations with them?

Agree 1 Neutral 1

#4. In your option, were the icebreakers more effective than the traditional self-introductions in helping learners get a sense of their colleagues?

Strongly Agree 1 Agree 1

Appendix C
Learner questionnaire responses

Questions to do with **developing community**

#1. Did you find that taking part in the icebreaker activity helped you to become more familiar with your online colleagues?

Strongly Agree 2 Agree 3

#2. Did participating in the icebreaker activity make you feel more connected to a community of learners?

Strongly Agree 2 Agree 3

#7. Did you think that your participation in the icebreakers helped you to better project

who you are in the online environment?

Strongly Agree 2 Agree 3

#8. In your opinion, would icebreakers help learners to cross the threshold of outsider common in online environments to that of insider, which is a feeling that you are an important and integral part of the learning community?

Strongly Agree 1 Agree 2 Neutral 1

#9. Did you find that participating in the icebreakers activities was fun and added to the overall learning experience?

Strongly Agree 2 Agree 3

Questions to do with **supporting collaboration**

#3. Do you feel that the icebreakers would help you to develop a better working relationship with your colleagues in the online environments?

Strongly Agree 2 Agree 3

#4. Do you think that the use of icebreakers would be helpful in trying to locate a learning partner?

Strongly Agree 2 Agree 2 Neutral 1

#5. Would you say that using icebreakers would be more effective than self-introduction in helping people get to know each other in online environments?

Strongly Agree 1 Agree 2 Neutral 1

#6. Do you think that the use of icebreakers would help learners develop a sense of comfort in the online environment?

Strongly Agree 2 Agree 3