

Storytelling and building collaborative team relationships in Second Life®

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Abstract. While much has been written on storytelling in groups, it is quite surprising that almost none of this work has been done in the context of 3-D virtual world settings of any sort. This paper presents findings from a co-operative inquiry study investigating the use of storytelling in the facilitation of online group work conducted in the 3-D virtual world of Second Life®. The power of combining the popular group process of storytelling with a metaphorical virtual environment led to *emotional connections* surfacing between participants and a felt *sense of place*. Second Life® assisted participants by providing a substitute form of non-verbal communication (body language) both as a part of the embedded AI avatar actions and those actions that occurred when users interacted with each other in the environment. Also present was an experience of others on a highly emotional level of engagement. Both useful findings for those looking to online tools for group work that requires strong connections and opportunities for interactive group spaces.

Keywords: 3-D virtual worlds, virtual teams, group collaboration, online groups, group work, group facilitation, Second Life®

1. Introduction

Collaborative team work in interactive 3-D environments is a recent, exciting and developing area for the field of Distance Learning and Education. Early indicators have shown that online teams with strong relationship links are more effective and more resilient than those without them. Effective processes and techniques to effectively facilitate the building of these online relationships are beginning to emerge. So far there is little empirical knowledge to assist group leaders and facilitators in this important task. This article draws on doctoral findings detailed in *Enhancing the effectiveness of online groups: an investigation of storytelling in the facilitation of online groups*^[16] and presents details from an investigation into the use of storytelling as a group process in Second Life®.

Many benefits are evident in 3-D environments. However, a number of communication challenges arise when many of the embodied aspects of inter-personal communication, such as body language, tone of voice, emotions, energy levels and context are not easily readable by group members and facilitators.^{[3][14][15]} Many of the well established group processes and interventions that group leaders rely upon in face-to-face situations do not translate well or are simply not available in an online group environment.

Storytelling, however, presents one approach from the domain of face-to-face group facilitation that translates well online.^[16] Storytelling is well known as an enabler for people to connect at a deeper level. It can be highly effective at building strong social ties and group resilience – right across a wide range of settings. Storytelling is, in itself, an essential human element. It does a whole range of things for us – drawing us in, engaging our imagination and our critique. Stories create connections with others, with our past, with our present and with our aspirations for the future. It is by sharing our stories that we come to learn

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and appreciate something of others - their strengths, their vulnerabilities, their joys and sorrows. Storytelling teaches us to both listen and also it enables us to find our own voice.

The power of storytelling in building group relationships is well-known amongst group facilitators and they use story as a process in a range of ways. Story can be useful as part of an opening to group sessions, for introductions between members, as an ice-breaker, as a way of recalling past group events, as a non-threatening way to discuss a group problem and explore possible solutions, as a way to share learnings, as a way to share best practice, and to inspire and pass on shared values.

While it is fun to take a group of participants base-jumping off the Eiffel Tower in a Second Life® version of Paris in the early 1900's, or swimming with dolphins on the Boracay reef, it is the sense of place and emotional connection that is evocative and stimulating of participants interest in each other. The 3-D interactive world presented an intriguing opportunity to investigate the potential of combining a popular group process with a metaphorical virtual environment conducive of that process. It was hoped that an evening camp fire in the starlight could be created within Second Life® that would add a new dimension to a shared storytelling experience online.

1.1. The 3-D interactive world of Second Life®

Second Life® is an internet-based virtual world that launched on 23 June 2003. It was developed by Linden Research, Inc. (commonly referred to as Linden Labs). Second Life® came to the attention of international mainstream news media in late 2006 and early 2007.^{[6][9][11][13]} A downloadable client browser called the Second Life Viewer enables users, called *residents*, to interact with each other through moveable avatars, providing an advanced social network service combined with general aspects of a *metaverse*¹. Residents can explore, meet other residents, socialize, participate in individual and group activities, and create and trade virtual items and services with one another.^[1]

2. Method

Phenomenological methodologies provide useful ways to investigate human experience through the perceptions of participants. Starting with a premise that storytelling is an effective approach to developing relationships between people, the method of *Co-operative Inquiry*^{[7][12]} within a participative approach, was chosen as a useful methodology for a collective investigation into *how storytelling could be beneficial in a facilitated online group*. Co-operative Inquiry presented an appropriate choice for a study designed to investigate group interaction online due to its flexibility of process and multiple-perspective approaches. Co-operative Inquiry produces data that has a strong grounding in participant experience and multiple perspectives of phenomena. The method also aligns strongly with recognized group facilitator values of equality, shared decision-making, equal opportunity, power sharing and individual responsibility.^[8]

2.1. Co-operative Inquiry

Heron^[7] considers that orthodox research methods are inadequate for a science of persons, because they undermine the self-determination of their subjects. He proposes that it is possible to conceive of a research approach where all those involved are self-directed, and in a position to contribute both to creative thinking and to the research and associated action. Co-operative Inquiry was developed to provide such a framework for integrating both personal autonomy and group collaboration.

Based within a participative paradigm, the Co-operative Inquiry method was developed as a research method for the investigation of human experience for two or more people. It is a form of research where participants are viewed as co-researchers who participate in decision making at all stages of the project. Traditionally a face-to-face method, it involves two or more people researching their own experience of something in alternating cycles of reflection and action.

Co-operative Inquiry rests on two participatory principles: epistemic participation and political participation. The first means that any propositional knowledge that is the outcome of the research is

¹ The Metaverse is a fictional virtual world, described in Neal Stephenson's 1992 science fiction novel *Snow Crash*, where humans, as avatars, interact with each other and software agents, in a three-dimensional space that uses the metaphor of the real world.

grounded by the researcher's own experiential knowledge. The second means that research subjects have a basic human right to participate fully in designing the research that intends to gather knowledge about them.

Key attractions for using this included equality between participants and the researcher; a focus on group autonomy to make decisions and be involved in the practical aspects of the research; a focus on investigating the practical aspects of group interaction and dynamics; opportunities for all participants to examine and share their thoughts and feelings and all relevant stakeholders could be represented and involved.

2.2. Data collection

A planning session was held with participants who were interested in designing the facilitated storytelling session. A facilitator was chosen to lead the session itself with participants and it was agreed that a forum discussion topic would be set up to collect participants' reflections and feedback on their experiences of the facilitated session.

2.3. The Study Venue and Participants

Second Life® provided a free and accessible environment for the inquiry group to explore the potential of a 3-D environment and the use of storytelling in building online relationships. The inquiry group had access to a virtual island in Second Life® attached to the New Media Consortium's campus¹ that had a number of group environments that could be used for the storytelling session. Nine participants joined in the session. The participants were from Auckland and Nelson in New Zealand; Sydney, Canberra and Perth in Australia; Hong Kong; Uppsala in Sweden; and Den Haag in The Netherlands. Participants were asked to create their own avatar in advance of the storytelling session. They were invited to also explore the tutorials on Orientation Island within Second Life® to familiarize themselves with the virtual world and navigation.

3. The Facilitated Storytelling Session

In the days before the session a number of participants discovered hardware, memory and broadband performance issues in setting up the Second Life Viewer on their computers. These sometimes required participants to join using an alternative computer with faster processing power and improved graphics capabilities.

The storytelling session was held at a virtual camp fire setup for the group on Boracay Island. Participants were invited to share their journeys about becoming a group facilitator through the use of storytelling, and to also reflect as they went on the experience in the 3-D environment.

Despite a number of initial challenges experienced in navigating, teleporting and moving avatars around the new 3-D environment it was quickly a rewarding experience for many in the group to experience each other's avatars together as reflected by one participant "When we were sitting around the fire on the Thursday SL session I felt as if we had finally come into 'the room' together, and with the background work we had done behind us and basic introductions handled already, it felt like we had this amazing opportunity to engage each other about this matter of facilitation and what it means to us and how it can be used in service in the world."

3.1. A Strong Emotional Connection

Participants described the experience as emotionally engaging, lots of fun, and many wanted to explore the environment further. Combining storytelling with the interactive 3-D fireplace metaphor meant that participants' connections with each other were evident on an emotional level. One participant described this emotional aspect by saying "The SL experience allowed people's personalities to come through. Engaged my emotions and seemed most like a face to face group." Another reflected "In an environment where the clues to peoples inner self are distant and difficult to detect this is the place where I will come to help me gather those clues and I thank you <name removed> for setting it up and all of you who have contributed. Another commented "More than any other tool we have used so far it taught me about myself as a facilitator and what I need to be awake to. I referred to my need to monitor my emotions and it was that aspect that I was

¹ The NMC Campus is an experimental effort developed to inform the New Media Consortium's work in educational gaming. See www.nmc.org/about for details.

referring to: If I am feeling frustrated, what does that mean for me as facilitator? If I want to go silly and have some fun, what will I do as a facilitator when some of the group want to get down to business and others are in the fun stage? I liked the pressure it placed on me to listen without interrupting and having to find other ways to indicate that I was listening.” 3-D environments can be another way for group leaders to provide an online story metaphor for groups that helps to bind not only those who experience the facilitated event, but also with those who are participating in the retelling of stories, and have a similar emotional connection with each storyteller.

3.2. A Felt Sense of Place

The Second Life® experience was described as being very close to what participants experience when meeting face-to-face. It was considered by some to be a very direct experience with an environment or place. “With <name removed>’s help I managed an appearance and was able to soak up the atmosphere and after you all left <name removed> and I sat quietly around the fire enjoying the glow and talking about life the universe and everything...this time with <name removed> reminded me of many times sitting around the camp fire when most had gone to bed and gently, quietly exploring the space.”

Another participant described another of the participants as though she had been sitting beside the person face-to-face: “I felt your quiet presence sitting on the log next to me in your white muscle shirt :-) trying to orientate yourself when we had all had an opportunity to do so earlier.” Another participant described the experience as quite natural and summarized her experience by saying: “...the session around the virtual fireplace was so natural and really felt like I was present with others. We managed, quite naturally, to blend story with fun and I certainly went away with a sense of ease and satisfaction...”

3.3. Changes in the Perceptions of Place

One participant had found her pre-conception about the experience in the 3-D environment had changed after the Second Life® encounter. When responding to another participant’s post on the forum she said “Dear <name removed>, I really relate to what you are saying about creating an artificial world when the real world needs so much attention, but after my SL experience, I have changed my mind. Of all the ways we have “met” so far, the SL environment was for me the most rewarding...The SL allowed people's personalities to come through. Engaged my emotions and seemed most like a face-to-face group.”

These comments reflect elements of embodiment in the sense described by Merleau-Ponty^[10] in *The Phenomenology of Perception*. He argues that humans are in their bodies, and that lived experience of this body denies the detachment of subject from object, mind from body. Similarly the Second Life® experience contributed to a highly embodied experience through participant’s senses.

Participants experienced a strong sense of place through a visual interface that could be moved around in, could be interacted with and changed, along with others who were also experiencing a *sense of place* at the same time in a similar way. In 3-D environments each participant’s mind has the ability to actually experience *self* and *others* as the avatars interacting in the world - rather than experiencing their hands on keys and mouse and a voice through the headset – although these are clearly the embodied aspects in action. The key thing for relationship building in collaborative teams is that when people shift their attention from proximal to distal, there is also a semantic shift. In the example, when people see and hear other’s avatars they interpret them as human and emotional and they also interpret the 3-D environment as a place.

4. Summary

Key findings in the Second Life® storytelling experience are that all the participants felt they connected with each other strongly and directly on an emotional level and described a strong sense of place. As part of these findings, two key differences were identified when using Second Life® when compared with other online tools. One was that the group had a perceived environment or *place* that they were experiencing and interacting with. The virtual campfire added to the metaphor of storytelling and engaged participants with the place as well as the conversation and story being shared. This notion of place as a culturally inhabited locus is also articulated in some detail in research by Clear^[4] and Harrison & Dourish^[5]. The 3-D environment contributed to creating a sense of a shared place that participants could move into. The second key difference

identified was that the group interacted with each other on a strongly emotional level, particularly in comparison to other online group tools they had used.

5. Conclusions

Beebe et al.^[2] describe non-verbal communication as the primary way in which people communicate feelings and attitudes toward each other, and that these messages are usually more believable than verbal messages. Furthermore, they suggest that nonverbal communication plays a major role in relationship development. While it is the non-verbal communication that is often low or missing when working across many of the online tools used by groups, benefits were highly evident when using the 3-D interactive environment of Second Life®. The meeting in real-time in the 3-D environment of Second Life® provided one of the highest levels of access to simulated non-verbal communication. Second Life®, assisted participants by providing a substitute form of non-verbal communication (body language) both as a part of the embedded AI avatar actions and those actions that occurred when users interacted with each other in the 3-D environment. In terms of relationship building this translated into an experience of others on an emotional level not found in the experience of other online group tools. It can be said that the power of storytelling combined with the use of a 3-D interactive metaphor is a powerful and useful approach for group work that requires strong connections and the ultimate opportunity for interactive group spaces.

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7. References

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