Construction and Community: Investigating Interaction in a *Minecraft* Affinity Space

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Introduction

Game-based learning provides opportunities for players to build literacies and develop skills in environments that are both engaging and social (Gee, 2013). Increasingly gameplay is happening not only in the game itself, but also in the external body of sites dedicated to sharing information about digital gaming, called the meta-game. An especially strong meta-game is the one found around *Minecraft* (Mojang, 2013). Fan production in the game has generated a massive network of player-created media ranging from: tutorials about procedural elements of the game, fiction told within the *Minecraft* engine, and a sprawling wiki and official forum which guide both new and veteran players (Macallum-Stewart, 2013). A theoretical framework which is commonly used to conceptualize interactions in the meta-game is that of the affinity space.

Affinity space theory describes how learners connect through online networks to pursue shared interests, without the need to develop persistent, stable communities rooted in ideas of belonging and membership (Gee, 2003). The framework has been applied to study learning behavior associated with the acquisition of a number of vital skills and competencies (Durga, 2012; Gee, 2013; Curwood, Magnifico & Lammers, 2013). However, as the field of affinity space research matures, researchers have begun to problematize some of the pre-suppositions of the framework. Although the idea of belongingness found in communities of practice is often absent in the fluid and unbounded digital spaces of modern game-based learning (DeVane, 2012), continuing work with affinity spaces has begun to suggest that certain spaces are welcoming and nurturing while others are exclusive and elitist (Gee & Hayes, 2012), leading us to ask where this distinction originates. Affinity spaces can be powerful sites of informal learning, but these spaces can also be contested and limited to those who already fall within established identities frequently associated with so-called gamer culture (Duncan, 2013).

In the following paper, we examine a particular affinity space, a forum dedicated to the game *Minecraft*. We first analyze the network structure of interactions that occur within the space. Then, we compliment this structural analysis with qualitative analysis of the forum posts occurring across the social graph to better understand the way that participants discuss their gameplay, and the meaning applied to the conversation taking place. Through this combined methodology, we find that this particular forum thread is a prime example of a nurturing affinity space as described by Gee (2004; Gee & Hayes, 2012). However, by examining the unstated assumptions found within the discourse of the space we find that participants often bring with them an assumed culture and community which exists outside of immediate boundaries of the space. We use these preliminary findings to frame future research which may better understand how ideas of community and belonging influence use of an affinity space, and conclude by discussing the implications of our work for creating affinity spaces which are more open and accepting of diverse types of players.

Theoretical Framework

Prior work on informal learning in online games has found that players tend to reflect apprenticeship practices in their online interactions; passing along not only instrumental help to new players, but also the cultural values of the game (Steinkuhler & Oh, 2012; Steinkuehler & Duncan, 2008). Exchanges within game spaces can have a great deal of complexity, and are largely mediated by the design of the game (Duchenaut & Moore, 2004). One way to situate such informal group learning is as a *Community of Practice* (CoP).

A CoP is a group that defines membership around interest and activity in a shared domain. In communities of practice, members are trained (frequently through apprenticeship) in the cultural and practical behaviors of the community by first being given tasks that allow them to understand some piece of the community (called legitimate peripheral participation) while being slowly integrated to core tasks of the community (Lave & Wenger, 1991). In communities of practice, the focus of study is on how the community interacts and learns together to enhance an individual's identity as a member of that community, and to hone their ability to practice the skill set the community is dedicated to propagate (Lave & Wenger, 1991).

Another framework that is salient to this study is that of an affinity space. This theoretical construct was developed to counter what was seen as a general overuse of the communities of practice framework. The research angle provided by the theoretical construct of the affinity space focuses more on what interactions between participants the space can afford, rather than describing the characteristics of a community within that space (Gee, 2004; Gee, 2012). This shift in focus is especially helpful since the idea of membership in these environments is often murky (DeVane, 2012). With the increasing participation of many different types of people in both games and online social interaction there are blurred lines between what constitutes a CoP versus an affinity space. For example, an affinity space may afford local, learning interactions with a group of members that do not form a community, but each of these members may bring an assumed conception of a community with which they frame their actions. These different processes – participation in an affinity space, but working towards an assumed CoP – may interact to explain what happens in various game-based learning sites. For example, the fan production of artifacts related to digital games may be less a representation of the passion of a niche group, and more of a question of mainstream cultural participation (Macallum-Stewart, 2013). Also, the learning benefits provided by participation in affinity spaces (Curwood, Magnifico & Lammers, 2013) are not uniformly available across all spaces. Instead many spaces are gated by elitist attitudes that privilege certain modes of participation over others (Gee & Hayes, 2012). Although power relations in nurturing affinity spaces are optimally non-hierarchical and dispersed, this social structure isn't always the case. As in any human endeavor, affinity spaces can be contested among their participants.

Duncan (2013) raises this question in the following way, "Is World of Warcraft 'well-played' in different ways to the different participants in the space? Are we left with deciding whose perspective on the game is more worthwhile?" (p. 49). These issues motivate the central question of this paper: how does the conception of community and belonging influence the interactions among participants in an affinity space? Specifically, we aim to better understand how a meta-game forum, associated with *Minecraft*, functions as both an affinity space and where participants nevertheless may bring assumed, backgrounded concepts of community to their interactions.

Methods

Setting

To examine a meta-game affinity space, we chose to analyze a thread titled "What have you accomplished recently" from the official *Minecraft* forums. This forum thread was chosen because it represents a wide cross-section of activity commonly associated with both gameplay and participation in the affinity space meta-game. In the wide variety of activity represented, the forum acts as a portal to information sharing and socialization relating to the game. This thread fits with Kozinets' (2010) criteria for a rich online site of study, as being: relevant to the topic, regularly active, interactive between participants, containing substantial communication, containing a number of heterogeneous participants, and presenting data that is both rich and multi-modal.

We focused on *Minecraft* forums because the game ecosystem (as a type of sandbox game) relies on players to share a large corpus of tutorial and informative material maintained out of the game-world to facilitate play. These resources are so vital that they become a core part of the game, despite being external to the game program (Banks & Potts, 2010). In addition to informational resources, one will often find images and videos of players showing off work that they're proud of to other players (Duncan, 2012; Lastowka, 2012). *Minecraft's* position as a complex system requiring the sharing of information, and as a creative platform for self-expression, result in two main genres of social information shared in *Minecraft* spaces: (1) help seeking and information provision, and (2) expressions of accomplishment and social support. The combination of both genres forms an ecosystem of social learning built around *Minecraft* (Banks & Potts, 2010), and this ecosystem exists primarily in social information sharing platforms such as Youtube, discussion forums, and Wiki software (Lastowka, 2012).

Data Collection

Data was collected by starting at the first post in the thread and coding each post for both the structural, social network analysis, and the qualitative elements of the post. Structural and qualitative data were collected side by side in a chronological fashion to understand the conversation in the thread as it occurred between participants. Participants in the forum are anonymized and are referred to by generic names, such as Participant 1 (P1), Participant 2 (P2) and so forth. Our data collection encompasses seven weeks of activity in the thread, with 372 posts made by 182 unique posters.

Data Analysis

We were interested in examining the structure of social interactions that occurred in this forum thread. Thus, we utilized social network analysis techniques to visualize and make sense of the social structure. In the social network graphs, each individual poster is a node in the network. Lines between nodes represent an interaction (e.g.

response) between posters in the thread. We constructed two sets of network graphs to reflect the different social interactions that can occur in a learning group. Using Garton et al.'s (2006) framework of social relations that can exist in online communities, we coded interactions that were (1) social in nature, such as the sharing of accomplishments and social support for game activity, and (2) instrumental in nature such as when players provided details and information relating to how to play the game.

In addition to understanding the structure of social interactions in this meta-game space, we also wanted to understand the ways in which players conceived of the space themselves. To this end qualitative analysis was conducted on the posts themselves, informed by Gee's methodology of discourse analysis (1991). Understanding the posts through discourse analysis allowed for a description of the socially figured world of the participants within the space.

In our analysis we examined blocks of discourse between participants, breaking the thread up by individual posts and continuing exchanges between participants. Qualitative analysis went through iterative coding which was informed by Gee's (2011) seven building tasks of language: significance (how is this piece of discourse relevant to the actions of the participants?), practices (what is being enacted by the participants' discourse within the focal thread?), identities (how does the poster figure their own position in the discourse, and the positions of others?), relationships (what ties are being formed between participants in the thread?), politics (what are the power relations within the thread?), connections (how does this piece of the thread relate to larger ideas within the discourse?) and sign systems and knowledge (what larger systems and signs is this part of the thread relating to?). By combining a structural analysis of the space alongside qualitative analysis of the discourse occurring within that space, we aimed to understand both how the space was used and the larger meanings attached to it by its users.

Findings

A Nurturing Affinity Space

The results of the social network analysis revealed that, as one would expect in an affinity space, there was a dedicated core group of participants in the center of the graph who shared information and supported one another. The central participants - P1 and P2, represented by the solid black node and the striped black node, respectively – shared common space with the less experienced participants (Figures 1 and 2). Many of the other nodes in the graph are connected to P1 and P2 who are central overall to the structure of the graph. However, singletons are still able to contribute to the thread even if they aren't central to the flow of the discussion. P1 and P2 offered a sort of informal leadership, directing conversation, enforcing the minor rules of the thread, and encouraging others. Other active participants, such as Participant 3 (represented by the dotted, gray node in figure 1) made use of the space to show off projects from their initial stages to completion and getting feedback along the way. Members provided support to one another and many different ways of participating were acknowledged by other participants. P1 often played the role of encouraging conversation and complimenting displayed work, but other participants throughout the thread also took up a guiding role. However, a large majority of participants in the social network contributed a post, without directly referencing another participant. Participation skewed towards a core group, as is visible in the figures below, and is an expected pattern in affinity spaces (and most online social information sites) where a small minority often account for a majority of the participation. In all of these ways, this space conforms to traditional conceptions of a nurturing affinity space (Gee & Hayes, 2012). However upon closer examination of the posts themselves we observed hints of a broader, underlying community identity among players that interacted with the affinity space.

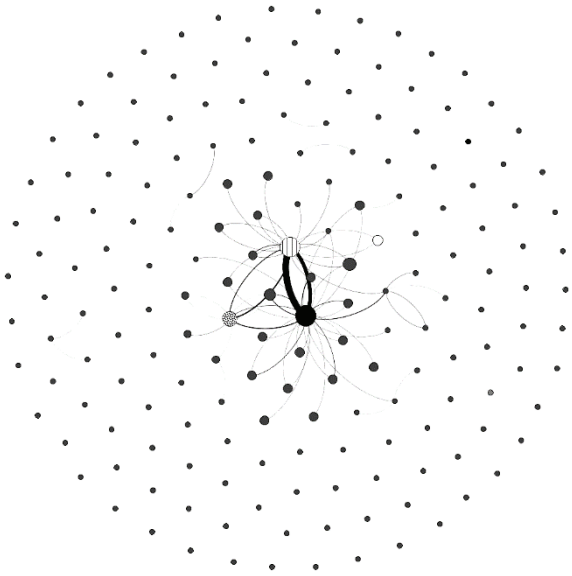

Figure 1: A graph showing the social interactions in the thread. The central group of major participants is visible in the center, with many single participants making up the periphery of the graph.

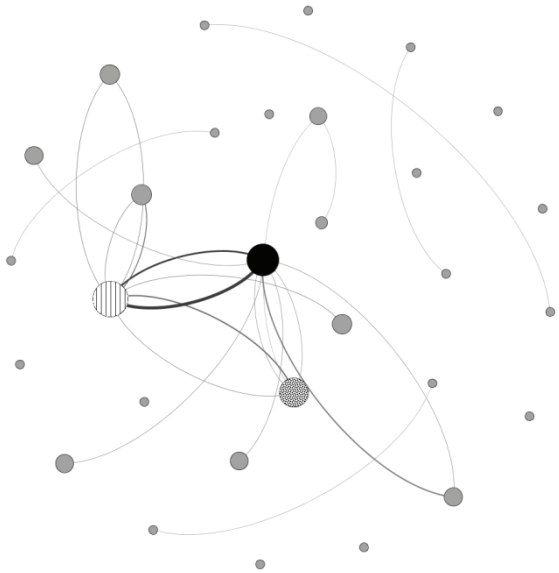

Figure 2: A graph showing the instrumental interactions in the thread. Although the structure of this graph is more tightly bound than the social graph, there is still a similar pattern of core participation. Many of the same central participants in figure 1 also comprise the center of this graph.

The Background Moves to the Fore

One key characteristic of an affinity space is that issues of demographics and identity politics tend to be backgrounded in favor of a focus on the task at hand. However, midway through the thread, an issue arose among the participants that momentarily derailed the conversation, starting with a post from P5 who questioned why P2 displayed a swastika on his or her forum profile: "Hmm well I feel that this needs to be brought up. P2 why do you happen to have a certain Nazi related emblem in your profile picture."

The above post prompted another user to defend P2, stating "Cant really speak for the person but : The swastika is also a Chinese character used in East Asia representing eternity and Buddhism. The symbol long came before Hitler defaced it. Its is a symbol as tainted as the christian cross thanks to ignorant people." Another participant clarified, "That's not Nazi related at all. Nazis aren't the only ones to use swastikas. Here is what that symbol is for: http://en.wikipedia.org/wiki/Lotta_Sv%C3%A4rd". Finally P2 replied:

> "Just because many people avoid to use similar symbols. And swastikas are not always bad, as you see.The same situation is with pentagrams. Here is a picture of a christian church: [image of a church with a pentagram] You can search in wikipedia fore more info about pentagrams in christianity. The upside-down version of the sign is considered as evil since mid 19th century."

This exchange highlights the strength of this particular affinity space, and gives an example of the strength of the framework as a whole. Despite a brief misunderstanding about the iconography of a user's avatar, the participants were able to clarify the issues and continue with the conversation relating to *Minecraft*. However, in defending P2 one of the participants of the thread hinted that other symbols such as the cross in Christianity were also used in negative ways. The issue explicated above was never addressed again, but raises the question if a devout Christian participant reading this exchange might feel intimidated or unwelcome. Although the above episode was an uncommon incident of tension between participants, further analysis of the discourse in the thread revealed other assumed identities that come to bear on affinity space interactions.

Survival vs. Creative: Hints at the Cultural Value of Play

A common theme throughout the thread was the need of posters to foreground the fact that a particular achievement or project that they are posting about was completed legitimately. In *Minecraft* there are two different game modes: survival (where all blocks must be mined or farmed by the player) and creative (where every block is available instantly to the player through a menu). As this thread was posted in the 'survival' sub-forum of the larger affinity space, players repeatedly clarified that their play was legitimate, with illegitimate play being defined by using creative mode to accomplish a task or make resource collection easier. Multiple participants in the thread comment on this distinction, for example:

> P2: "2nd pic: the new stones were made with a block transmuter. It can be considered as cheating, but i think adding a new block only to creative mode is unfair."
>
> P3: "[captioned images of a large project] all legit I just flew to get a better view for the screenshot [flying is a capability only enabled in creative mode]."
>
> P4: "I have built my base, and defeated the ender dragon! 100% Legitimate!"

The continued negotiation of play exemplifies an unspoken cultural value that survival play is legitimate, while creative play is a lesser form of gameplay.

Finding Inspiration and Modeling from Others

There was also evidence of apprenticeship within the space. Specifically, players often referred to and modeled their play on well-known celebrity designers. The practice of modeling on celebrity players hints at a broader, assumed community of practice for different players who sense a legitimate way to play or seek to model their practices on who they view as core members of a Minecraft community. One of the main leaders of the thread, P2, provided an example of a participant modeling their behavior on a more famous member of the larger community that exists outside of this particular space:

> "After a time I collected lots of resources. And I use them to make my world look better and better. Keeping them in chests is pointless. I have inspiration from Etho's videos and I give more attention to details now."

Etho was a famous designer whose major contributions were narrated play-throughs hosted on *YouTube*. P2 showed that he was inspired by the work of a more famous player, Etho, and placed a similar level of care in the aesthetics of his own work. P2 further emulated Etho by providing tutorials to other players. P2 not only has learned a skill, but also adopted the value of teaching others through tutorials. The relationship shown between P2 and Etho is similar to Steinkuehler and Oh's (2012) findings, where apprenticeship relationships developed that incorporated not only instrumental apprenticeship between junior and senior players, but also the transmission of cultural norms about the game.

Other players frequently recognized P2's consistent level of contribution. For example P5 said to P2 in the forum: "the stuff you post is amazing! Id like to see more of your creations please ☺ Maybe a world download or more screenshots?" This social support prompted a reply from P2:

> "My stuff is amazing? Thanks! Since a time I decided to build things bigger than I really need. It gives me more space for designing. And some things that I do not need but think it is cool to have them in my world. And I avoid using cobble. Even some holes in my mines I fill with dirt, stone or gravel."

P2 also went on to create his own personal site to showcase his work, much like the well-known designer Etho had his own Youtube channel. These observations represent how some players explicitly model their behaviors on more famous players within the larger community of Minecraft fandom at large.

Discussion

In many ways the focal thread we examined fits very well within the theoretical outlines of an affinity space. As shown in the structure of our social network analysis, the forum is a space that allows a porous and heterogeneous group of users to interact with one another to share a wide variety of information (both social and instrumental) relating to a common interest.

However, in addition to the immediately visible contours of the affinity space, there also exists a broader community of people who identify as *Minecraft* players, with some further identifying with the elite level of producer found within the larger *Minecraft* meta-game (Maccallum-Stewart, 2013).

The analysis presented in the findings points toward a problem in the larger discourse surrounding digital gaming, which is the way that a perceived gamer culture often results in unwelcoming attitudes towards those who fall outside of that culture. Our focal thread, which is otherwise welcoming, supportive and non-hierarchical, still exhibits elitist attitudes where players privilege some types of play over others.

Although the question of community and demographics have been backgrounded in previous affinity space research, recent attention to these issues in the popular gaming press make it more vital to consider these issues in future affinity space research. One possible question that we are interested to pursue in future work is, how do disparities in a participant's background culture (e.g., race, gender or sexuality) conflict with the assumed culture of a given affinity space? Perhaps the answer is that affinity spaces afford interactions that can overcome inequalities, but this potential can only be realized through the actions of human participants who may bring elements of cultural and social inequality with them to the space. Future research is needed to understand how the affordances of an affinity space and broader culture interact in gameplay and learning. Overall this fits with Duncan & Hayes' (2012) call to expand our conception of affinity spaces for the way that modern youth are learning and playing online. A fuller understanding of how community identities interact with affinity spaces will allow both game designers and educational designers to create experiences that reach a broader array of players and learners, not just those who fit with the dominant assumed culture of a given space.

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