"Ugly in a World Where You Can Choose to be Beautiful": Teaching and Learning About Diversity via Virtual Worlds

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Abstract: In this paper, we discuss an approach to providing students with first-hand learning experiences that help them understand cultural differences and aspects of diversity. As part of a five-week course, fourteen high school students participated in activities within massively multiplayer online games (MMOGs) as learning environments to explore issues of identity construction, discrimination, and cultural sensitivity. Student attitudes towards diversity and towards the technology used in the course are discussed. The students reported using the tool to explore and to equalize cultural and demographic differences. They showed significant improvement on a measure of sensitivity towards an understanding of diversity, and evidence suggests they were able to develop a more sophisticated, less essentialist model of diversity.

Introduction

Problem solving today requires ever-increasingly multicultural approaches, as evidenced by trends of globalization and the outsourcing of information technology work. More than ever, people characterized by differences in gender, ethnicity, age, socio-economic status, religion, experience, etc. need to collaborate in order to effectively solve today's inherently global challenges. For young students, this can be a daunting task, as many schools are characterized by a lack of apparent diversity which often reinforces stereotyping, generalizations, and a naive understanding of these cultural differences. Ethnocentrism, misunderstandings or overly simplistic views can exist, leading to gaps and disconnects that hinder communication and coordination between cultures (Trauth *et al.*, in press).

With this difficulty in mind, how can students be educated about culture, diversity, and the value of differences in an evocative first-hand manner? One possibility is to take advantage of online multiuser learning environments such as identity construction environments (e.g., Bers, 2001). Bers (2001) explored the use of technology purposefully designed to afford opportunities for exploring identity and personal and moral values. Building upon this and other similar work, we turn to *massively multiplayer online games* (MMOGs) – persistent, online virtual worlds that connect thousands of diverse people from around the world like never before.

The intrinsic characteristics of MMOGs that support hands-on, experiential learning demand further investigation. For example, discovery learning (Bruner, 1956) and social constructivism (Dewey, 1966) occur in the virtual worlds of MMOGs as participants construct their own knowledge during real-time, synchronous interactions with other kinds of people (Gee, 2003; Squire, 2002). Participants can also explore and learn about issues of identity and diversity (e.g., the formation of stereotypes) within MMOGs. When one meeting someone for the first time via face-to-face in real life, a person's physical appearance is typically judged first, which can often lead to prejudices or presuppositions based on assumptions of one's culture or visible attributes. In online environments such as MMOGs, however, the reverse occurs; people get to know each other from the *inside out*, i.e., one getting to know another person on a "deep personal level first, without letting anything like [real life] physical appearance get in the way." (Yee, 2003). The content of one's character takes the forefront rather than biases or prejudices based on gender, race, age, sexuality, nationality, etc. We therefore sought to explore the utility of MMOGs as a learning intervention for diversity issues, including the existence and formation of stereotypes, identity construction, perceived cultural differences, etc.

In this paper, we will first describe the design and implementation of a five-week summer course for high school students that made use of MMOGs to explore issues related to diversity. We then outline some of the outcomes of the course related to student attitudes towards diversity and towards the technology used in the course. Finally, we discuss the potential utility of MMOGs as an approach to provide an active learning experience that

helps students understand identity construction, discrimination, and aspects of diversity within an immersive, interactive environment.

An Exploration of Virtual Worlds and Culture

We developed and taught a five-week course, *An Exploration of Virtual Worlds and Culture,* as part of a full scholarship, residential summer enrichment program that gives talented high school students across the state of Pennsylvania a comprehensive experience in information sciences and technology. Our class consisted of fourteen eleventh grade students (eleven males and three females).

Each class session, typically three hours, involved both in-world activities and face-to-face discussions. Online activities took place within two virtual worlds: Makena Technologies' social MMOG entitled *There* and Linden Labs' *Second Life,* both chosen due to their ease of avatar customizability, low cost, and their dynamic, social nature. MMOGs, immersive, 3D virtual environments rich in collaboration and social interactions, house thousands of real people from around the world, thus providing inherent international representation (Woodcock, 2005). One's physical appearance can be custom designed in deliberate ways (Figure 1); each player constructs a virtual identity in the form of an avatar, a visual representation of a user with customizable clothing, facial and body features, accessories, etc. Interactions between avatars occur mainly in the form of text-based chat and animated gestures to convey emotions. Unlike traditional combat-style games with a predefined goal and victory or failure end state, there is no way to ultimately win, lose, or die in these two MMOGs. Instead, the primary focus is the social interaction and community consisting of thousands of real people wandering around in the virtual world. Characters simply banter and have fun while mingling in various scenic locations; some also choose to purchase clothing, vehicles, or other objects for their avatars' use.

Figure 1. Customizing an avatar's appearance.

MMOGs provide a place where people can create a brand new, *second self* -- that is, one can construct a new virtual identity and experience interactions and life walking in the shoes of the persona of one's choice. For example, the practice of *gender bending* (e.g. a female player creates a male avatar and experiences being treated as a male) is not uncommon. Kolko (1998) describes virtual identity creation, and subsequent interaction and experience as a form of autoethnography, in which the participant explores "both real and imaginary relations of power and culture." The lessons learned as a result of the self-presentation, contact, and conflict that occur in MMOGs hold great value for understanding identity and empathy. One has the opportunity to experience life as a member of the minority or "other" population, to investigate the existence of cultural differences, and to gain a better understanding of discrimination and the formation of stereotypes. While other researchers (e.g. Bruckman, 1993; Gee, 2003; Squire, 2002; Roussou, 2004) have studied other forms of virtual communities (e.g. MUDs,

MOOs, or more traditional online games) for pedagogical purposes, we were particularly interested in how the social phenomena that occur in non-combat MMOGs can promote students' learning of diversity-oriented issues including the construction of identity.

Our course featured in-game activities (Figure 2) in which students would be instructed to interact with both random strangers and classmates within virtual worlds under certain specified conditions (e.g. posing as the opposite gender) or to perform certain tasks (e.g. a scavenger hunt within the virtual world). Students gained hands-on experiences with discrimination, sexism, and stereotyping, as the students experienced life posing as someone different from themselves. One activity was to design an avatar to be the opposite gender and to observe any differences in treatment received. Students experienced a very different set of social interactions and treatment as they embodied the new gender in digital form. For instance, the males that posed as females noticed more "freebies" as a female character, and in some cases, flirtation and unwanted advances. In another activity, students were asked to make their avatar's appearance very strange and unattractive, and to observe how people would interact with the character. These activities led the students to formulate insightful thoughts regarding diversity that will be discussed in the following sections.

Discussions of interesting in-game occurrences helped students learn from each other's experiences. Students were also asked to reflect on these online experiences in their personal weblogs. At the beginning or end of each class, students wrote their reflections and thoughts on their online experiences, or answers to specific questions that we asked them (e.g. "How can virtual worlds be useful to teach someone about other cultures?"). Other aspects of the course included application of learned concepts in the form of a design project. Students were asked to choose a target audience different from themselves (e.g. grandparents, international students, etc.), and to design a solution to address this audience's need. The students conducted interviews and asked questions before a panel of international students to help them with their design process.

Data Collection

We collected data as part of a formative evaluation of the course. A pre-test was administered on the first day to collect the students' basic ideas and thoughts on diversity, an assessment of their own cultural sensitivity, positive and negative aspects of diversity, and thoughts on MMOGs -- their utility as a teaching tool, what phenomena exist and what occurs in them, etc. For more in-depth answers, weblog responses were recorded and analyzed. Audio and videotape recordings were also used on occasion. On the last day of class, a post-test was given on their thoughts about diversity and how their ideas had changed.

Figure 2. Students' avatars interact within virtual worlds.

Results

Overall, students demonstrated a greater understanding of diversity beyond essentialist definitions, an increased sensitivity to diversity after the course, and reported perceptions of high value of MMOGs for exploring diversity. Specifically, they reported ways in which the online environments provided a social space both to explore differences and to equalize them.

Growth in Sensitivity and Understanding Diversity Beyond Essentialism

In addition to open-ended questions, the pre- and post-test included nine multiple choice questions on a 5-point Likert scale related to perceptions of diversity (for instance, "How diverse is your high school?" or "Do I think people of other cultures use technology differently than my own?") and to sensitivity to diversity (for instance, "How often do I challenge others when someone makes a racial, ethnic, or sexually derogatory comment?"). Students showed significant pre-post gains on this instrument in a repeated measures two-tailed t-test; all but one student had an increased score. (M_{pre}=29.786, SD_{pre}=3.534; M_{post}=34.000, SD_{post}=2.774), $t(13)$=-4.382, p=0.0007. This increase might be explained by students trying to please the instructor, rather than by significant changes in attitudes. However, students' sophistication about describing different dimensions of diversity suggests this is not the case. Initially, students' comments and weblog posts focused on ethnic diversity (skin color), but later students were able to describe more types of diversity. Several students reversed their positions on diversity in their own high schools (names have been replaced by same-sex pseudonyms):

> I think my school is more diverse than when I started because there are more types of diversity than I thought. (Anna)

> I think the best example of what I learned is that culture is more than just race and skin color. Diversity comes in many forms. It's about things like age, gender, education, philosophical beliefs, and socioeconomic background, too. (Enid)

Students also cited sources of diversity beyond skin color, such as culture and personality development, as well as how stereotypes can be formed:

> I learned that people from other cultures are tangibly different in some fundamental ways, but that all people have a basic commonality. (Mike)

> I've learned that it is easy for people to assume things about a society that they do not understand or come into contact with. Many generalizations are made that are sometimes completely unfounded. (Enid)

> There are a lot of ways things and people could be misunderstood. In order to eliminate them, we must be listeners and learners. (Vince)

> I learned a lot about how culture can shape a person's personality. I also learned how technology can be used to unite people of different cultures. This class also helped me see how stereotypes can be formed. (John)

Developing an understanding of diversity that moves beyond essentialist, demographic categories is especially important because it opens up greater potential for students to empathize with others who are different, and allows constructive responses to differences other than merely tolerating them (Trauth, 2002).

Technology's Role in Learning About Diversity

How did technology influence students' learning about diversity? Certainly, the students were enthusiastic about using MMOGs in general, calling them "fun, engaging...amazing learning tools" with "the potential to teach many things." Using a five point Likert-type scale on the post-course evaluation, the mean student rating for the statement "MMOGs are fun" was 4.1 (SD=0.73), while "useful for educational purposes" and "useful for exploring culture" also scored highly, 3.71 (SD=0.579) and 3.79 (SD=0.469), respectively. The students enjoyed the immersive and interactive properties of the technology.

Students not only appreciated the fun and motivating aspects of the technology; they also cited ways in which the technology allowed them to experience diversity issues firsthand. When we specifically asked student whether virtual worlds are helpful for learning about diversity, students unanimously said yes, elaborating:

> Yes, a virtual world is useful for teaching and learning because they let people experience things firsthand and that is the best form of education. (Mike)

> Yes, these games provide a risk-free environment for exploration and discovery. When coupled with course material correctly, they can be used for learning. (Bill)

> Yes. Culture is all about daily experiences. Only a truly interactive experience can mimic that. Any attempt to teach through normal educational channels about a cultural artifact will probably fail. A virtual world is a poor substitute for physical reality. However, it alone is close enough for layer of depth that is culture to become seen. Better than simply trying to explain how other people are different, it is easier to learn from the people themselves. (Mike)

One important way that online environments allowed students to experience diversity was to permit them to explore differences experientially. Students commented on how real world phenomena such as discrimination, stereotypes, and social status also transfer into the virtual domain:

> If you are ugly in a world where you can choose to be beautiful, it's bad for you. (Daphne)

> There is discrimination based on perceived qualities, but not real ones. Cool avatars are more popular. Ugly ones lead to a person being unpopular or disassociated. Courtesy is given to female avatars. I designed my avatar to be very unattractive, and as I would walk up to groups of people, they would all scatter and avoid talking to me. Even though stuff like digital money and appearance isn't real, it still affects the way people respect you and interact with you in the game. (Bill)

> Yes, the avatar can resemble the real person, but it can also be completely different from the real person. This allows fat people to become skinny and tall people to be short. One reason why people make their avatars different from them is because people treat people differently based on looks and some people do want to be treated differently even in a virtual world. (Vince)

Another way students reported virtual worlds could help them learn about diversity was by leveling the playing field so students could interact with others in spite of differences. "It's much easier for people to be accepting of one another in a digital environment," said Bill. Other students had similar sentiments:

> In a virtual world, everyone is a little more equal, so conversations that might be hindered by cultural differences are considerably more fluid. In a virtual world, it is very easy to find people with similar interests to you. (Gabe)

> Interacting in a virtual world is not so much lesson in diversity as an equalizer. As a virtual person, you can create all of your attributes and even you personality to some extent. It may be helpful in diversity education, if a person is honest, because it bridges the space gap between people. (Sandy)

> Virtual worlds allow for people from all over to meet each other in a system that doesn't discriminate except usually in the case of a digital divide. (Daphne)

Thus, the MMOGs appear to provide the ability to not only explore differences realistically, but also to reach across those differences to discover similarities.

Discussion: Diversity and the Digital Generation

The line of demarcation between reality and virtuality is increasingly blurred each day as teenagers devote more of their time as online inhabitants. Many teenagers in today's digital Google-and-gaming age currently spend exorbitant amounts of time online as a normal part of daily life: shopping, playing games, maintaining friendships via instant messenger and email, getting news, reading weblogs, etc. Over 80% of the nation's teenagers go online -- and many of them can scarcely remember what the world was like when people weren't always connected (Pew Internet, 2005). Over 43% spend more than an hour per day online, and the majority of teens (57%) also prefer the Internet to the telephone (Brignall & Valley, 2005).

Another noticeable trend is that today's teenagers can be seen as a generation of "virtual kids." Many teenagers create and maintain new identities (or virtual lives) online and engage in activities that are very different from their everyday face-to-face interactions and experiences. For example, the shy introvert in the classroom can lead a double life as the fearless leader of a band of dragon-slaying warriors in the virtual space of an online fantasy role-playing game, while the increased anonymity of the Internet may liberate others to use aggressive behavior or hate speech towards others in chatrooms, message boards, or games.

As the data from our class and an apparent emotional investment that goes into online gaming suggest, virtuality does not equate to being less important or real to students. Turkle (1995) observes that people are "increasingly comfortable with substituting representations of the reality for the real." In many cases, the overlap between real and virtual effectively causes no practical reasons to distinguish the two. For example, it is not uncommon for teenagers to have developed significant friendships or even romantic or intimate relationships with strangers online. Yee (2003) found that over 59% of men and 74% women who play in massively multiplayer online games (MMOGs) reported having become good friends with someone they met online. In many cases, these friends are often described as better than their real world counterparts, and even real-life marriages have resulted from online in-game friendships.

This new form of multiple, shifting identities poses challenges but also opportunities for understanding differences. As teenagers invest more into their virtual identities, it becomes increasingly important to consider how to design new learning environments that can foster greater unity amid all kinds of cultural differences. Virtual world technology continues to become more realistic, and as the social dynamics of immersive worlds continue to blur the lines of reality and virtuality, we believe virtual worlds will become more prominent and useful in classrooms for understanding human nature, how technology can bridge cultures, and how we can find unity amid differences. While this study does not present conclusive evidence, it is highly suggestive that MMOGs could play an important role in teaching teens about diversity. As our course demonstrates, phenomena such as stereotypes, prejudices, and the relationship between appearance and identity can be explored experientially, and students benefit additionally from the motivational boost of using engaging online environments. Online experiences such as these can become an object lesson on distinguishing between social behavior and an individual's characteristics. As Turkle (1995) says:

> Virtual spaces may provide the safety for us to expose what we are missing so that we can begin to accept ourselves as we are. Virtuality need not be a prison. It can be the raft, the ladder, the transitional space, the moratorium, that is discarded after reaching greater freedom. We don't have to reject life on the screen, but we don't have to treat it as an alternative life either. We can use it as a space for growth ... Like the anthropologist returning home from a foreign culture, the voyager in virtuality can return to a real world better equipped to understand its artifices. (Turkle, 1995, p. 263)

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