

Using the How People Learn framework to build a sustainable cooperative community in *World of Warcraft*

Mark Chen

December 13, 2004

There's a growing field in academia right now on the study of computer and video games for education. Most of the work is either focused on training for a corporate or medical setting or teaching specific school content, and, of the work outside these two areas, it is primarily focused on content knowledge such as math (Ingram-Goble and York 2004) and history (Barab and Squire 2003). My personal view of what could be improved with American education is not limited to what people know, however. I believe people are not learning how to be wise, using Robert Sternberg's definition (2003). Essentially, "it is important not just what you know, but how you use what you know—whether you use it for good ends or bad (p. 7)." I'm attempting to study the fostering of cooperation and social skills in computer games and whether these skills can transfer to real-life behavior through a better understanding of an individual's identity as a participant in a larger community. I think games can reach out to people (both kids *and* adults) in informal settings very effectively, and I think I can lend a specific lens to look through upon this idea since I come from a gaming background.

Social Dilemmas

One way of looking at social responsibility and being wise is by looking at social dilemmas. A social dilemma is a situation where an individual's most rational choice (the choice that makes the most sense in terms of self-interest) is not the same choice as the one which benefits the whole group, and where if enough individuals make the group choice (the self-sacrificing one) each individual of the group actually benefits more than the benefit received by making the self-interested choice (Felkins 2001). One example is

of carpooling or taking public transportation. People generally agree that if enough people carpool or use mass transit, traffic congestion would lessen and the time it takes to commute would improve. The individual effort it takes to carpool, however, is high, and many people want to reap the benefits of carpooling without themselves being participants. (*The Onion* even did a story about this, “Report: 98 Percent Of U.S. Commuters Favor Public Transportation For Others.”) But there is a theoretical critical mass where if enough people commuted alternatively then the individual benefit would outweigh the individual cost.

Social dilemmas like this manifest themselves everywhere in a society focused on valuing the individual. Examples range from recycling to voting, from donating to local communities to peer reviewing for pay raises. The crux of the matter is educating people on the existence of these situations and demonstrating to them that the self-sacrificing choice actually reaps the most reward so long as enough of them do it or, to put another way, so long as enough of them *trust* each other to do it (Felkins 1999). From there, it is important to instill a sense of responsibility, obligation, or whatever it is that is needed in order to make people be wise rather than be “free-riders” (Kollock and Smith 1996). If looked at from an identity/multiliteracies point of view, the idea is that we want people to try out different identity strategies and eventually come to the conclusion that one which participates in a community is one that is most rewarding. In other words, we want to supply people with an intrinsic motivation for being wise by getting people to consciously think about who they are and who they want to be within a community.

One of the problems with convincing people to make choices for the group is that in real-life the perceived risks are too great, and, in many cases, once a decision is made

there is no going back. A good computer game, however, encourages players to try out different strategies and risk taking all the time by rewarding innovative play, rewarding different solutions to the same problem, and by letting players replay the same situation as many times as they want (Gee 2003). (Unfortunately, a lot of games do not portray consequences of violent or antisocial actions very realistically, which is fine for certain games, but a problem for games which simultaneously accurately simulate other social aspects of life.)

Earlier this year, two other researchers and I worked on a pilot study which ran participants through a computer simulated social dilemma using a popular role-playing game engine (Chen, O'Connor, Riesland 2004). The simulated social dilemma was Hardin's defining example, The Tragedy of the Commons (1968), where a group of cow farmers all have their own land and share a common pasture. The common pasture poses no cost to the farmers for having cows graze there, but, at the same time, it can only sustain a limited number of cows. Each farmer then has to decide how many cows to put on the common pasture. Does each farmer put in all their cows to maximize the benefit, or can some kind of cooperation scheme emerge? In our version, players took on the role of one of these farmers and played through three seasons, deciding how many cows to place, seeing the results of what the other farmers chose in the following years in response, etc. We included a pre-test and a post-test using the computer game as a treatment effect to see if players changed their minds about a paper scenario on carpooling after playing the game. Other than only running three participants through the study, the biggest problem we encountered was that the game didn't last long enough to really get a sense of the players' identity formation or understanding of the social

situations. We also made the idea of transfer untenable by making the different scenarios seemingly unrelated. Yet, it was obvious from just the three participants that future studies would produce results that were just as scattered as the ones in our pilot study because there were too many uncontrolled factors even if the in-game and on-paper scenarios were the same. The players themselves each brought a different background and different playing style, etc. To find particular trends, an expanded study based off of our pilot test would have to be so massive that the time needed would not justify the actual research conclusions (if any!), and we would be no closer to understanding *how* people come to understand their roles in a cooperative community; we'd only come to understand a little part of *if* their behaviors changed.

World of Warcraft

In order to better understand how specific identities can be fostered, a different kind of study is needed—one that is proactive with a clear intent to change players' behavior. This works under the assumption that players' behavior does change, and instead focuses on how it can be changed most effectively. Why bother seeing if something can change *naturally* when we know the change in question is what we're striving for? Wouldn't it make more sense to actively try to bring about that change? Along this line of thinking, I have joined the massively multiplayer online role-playing game (MMORPG) *World of Warcraft* and created a cooperative guild, an in-game system of grouping, with some friends of mine who are also playing. Through this guild, I will study how people interact and communicate with each other and the game environment.

In the How People Learn framework, one of the most important things to do is to get students to actively understand what they are there to learn, so that they can self-

regulate and self-assess continuously during the learning process (Bransford, Brown, and Cocking 2000). Likewise, getting a group of players to understand explicitly that cooperation is the goal is needed to most effectively teach them these social skills.



Figure 1: Members of the Harsh Winter guild in *World of Warcraft*

Forming a guild with the purpose of creating a sustainable, cooperative collective would allow for explicit goals to be laid out which all the members can agree to. The effectiveness of this guild could then be compared to that of other guilds of the same size, or individual players in this guild could be compared to players of the same level who are either in other guilds or are non-affiliated. I could ask new members a series of questions and then see how they respond to the same questions a month or two later. But more importantly, players in the guild could be studied more easily in terms of their identities

within the guild community. Are they participating because they feel like they are being forced to by the guild, or are they actually coming to understand the benefits of participation? This is better facilitated because *World of Warcraft* provides in-game ways of managing and communicating with guild members. Players do not need to be located in the same virtual space—they can be continents away—and still be able to communicate very effectively. The guild then acts as a sandbox within *World of Warcraft* to use the whole How People Learn framework towards the goal of fostering cooperation skills. This framework targets four areas to consider when creating a learning environment. It needs to be: *learner centered*, allowing for different kinds of students; *knowledge centered*, staying focused on the actual content or knowledge or system to be learned; *assessment centered*, letting students and mentors continuously monitor learning progress; and *community centered*, realizing the huge importance of community support and the social nature of knowledge in a distributed system.

Learner Centered

Each person who plays *World of Warcraft* brings to the game a different personal background; they transfer-in differently. As an informal mode of entertainment, however, all the players who buy the game are doing so voluntarily, so it is relatively safe to say that they already have internal motivation to play. These gamers can be loosely categorized. For example, there are power gamers (a.k.a. min-maxers) and there are role-players. The min-maxers take the task of understanding the game system and then acting efficiently in the game system to an extreme. They analyze the stats, always calculating and debating the best way to maximize potential damage or to figure out the quickest leveling-up curve. The role-players, on the other hand, play out their imaginary roles

(sometimes also to an extreme). They are less interested in “working the system” than immersing themselves in a fantasy world. These examples, of which there are more, only speak of the experienced gamer. There are also the newbie gamers and casual gamers who are not quite considered experts within the gaming arena.

No one, at the start, is an expert in *World of Warcraft*; like any domain, to become an expert takes time. It takes time to learn the system just as it takes time to understand the background history of the game setting and the social structures players create in the game. How do we reconcile the different types of gamers? How do the gamers who are really into the most efficient character and game-play come to understand the role-player and vice-versa? I argue that an “adaptive expert” is someone who can participate in multiple types of playing. I also argue that to become an adaptive expert in a particular domain requires one to develop an “adaptive expert mentality.” In other words, knowing that one is trying to build a specific identity helps one to do it.

Assuming this is the case, one of the guild’s purposes will be to support the understanding necessary between types of gamers to become adaptive expert players of *World of Warcraft*. Ways of doing this include actively partnering novices with experts, posting online articles on game mechanics and role-playing, etc. It also includes explicitly letting guild members know the purpose of the guild and the kinds of people the guild wants.

Knowledge Centered

It is relatively easy to show how a game, like *Rome: Total War*, could teach people about a particular subject area, like historical culture. The purpose of this *World of Warcraft* study, however, is to teach people cooperation skills by demonstrating that it

helps them play the game effectively and by fostering wisdom. Teaching people cooperation skills is more difficult than just teaching specific school content because “cooperation skills” is not well defined, and, in fact, it is a continually changing concept in an informal game. Too many specific rules from the start about how to interact and communicate with others would seem to limit the amount of “fun” players could get out of a game they purchased. Instead, these guidelines have to emerge from within the guild for its members to value them.

Kollock and Smith (1996) cite Elinor Ostrom’s observed design principles of sustainable, online, virtual communities:

1. Group boundaries are clearly defined
2. Rules governing the use of collective goods are well matched to local needs and conditions
3. Most individuals affected by these rules can participate in modifying the rules
4. The rights of community members to devise their own rules is respected by external authorities
5. A system for monitoring member’s behavior exists; this monitoring is undertaken by the community members themselves
6. A graduated system of sanctions is used
7. Community members have access to low-cost conflict resolution mechanisms

This set of principles will guide the formation of the guild to a degree. It might be best to keep some of them invisible so it seems to the guild members that we’re all playing for fun. One guild member, for example, has already complained about any sort of written rules of the guild. I will try to figure out how to present goals rather than rules, which all guild members have already agreed to upon joining the guild, and hopefully the actual rules will emerge over time.

Assessment Centered

Well, an obvious kind of Preparation for Future Learning assessment is that one has to move up on the expertise scale in order to gain character levels and understand the

mechanics of game-play. Good feedback would go a long way in encouraging guild members to develop cooperation skills. Much of the assessment could be done by individual guild members and their peers, especially since the goals will be explicit. Members will hopefully be able to continuously monitor their own behavior. It should be stated that before anyone is accepted into the guild, they must agree to strive for the same goals, those of cooperation and sharing of resources and knowledge.

It will also be possible to compare our guild with other guilds on the same game server. In-game tools allow for relative power comparisons, and so far we are and continue to be in the top 5 guilds list. How much of this is due to the natural composition of our guild and how much is due to our guild's effectiveness in cooperating and sharing resources is hard to determine, however. It may be easier to interview guild members and members of other guilds or players who are non-affiliated to get an understanding of how they like the game and what parts of the game they enjoy or find encouraging.

Community Centered

World of Warcraft, like many role-playing games, features multiple character races and classes to choose from. All of the classes are specialized and each has its own particular nuance or playing style. One component of the game is its player vs. player combat (PvP) between the two factions. A player sides with one of the factions depending on the race he or she chose during character creation. In order to excel in PvP, it is important to understand a little about each class so that one can devise strategies to use against those classes' strengths and weaknesses. It will be extremely rare to find a player who has enough time to discover every nuance of all the classes, and hopefully a kind of distributed knowledge system will emerge. Each player will be encouraged to

share experiences and play a dual mentor-apprentice role. New members will be brought into the community first as mostly apprentices but later as mostly mentors, yet the game will have enough "stuff" in it that every player will have some specialized knowledge to share.



Figure 2: Character creation screen

Additionally, each character can learn two crafting professions such as tailoring or blacksmithing. Each can then make various items which others who do not have the same professions can make. The items that a character can make require harvested resources such as cloth and ore. All characters can come across these resources even if they cannot use them, and so the guild will try to establish a clearinghouse for the sharing of in-game resources and items as well as the sharing of knowledge and strategies.

The creation of a guild in *World of Warcraft* is spurred by my desire to foster the development of cooperation strategies among individuals in a collective. This might take a long, long time especially if the guild structure and goals/rules will be continuously changing. After all is said and done, however, the hope is that these cooperation strategies transfer to real-life situations which also resemble social dilemmas. How the guild should be structured to encourage real-life transfer, I don't know, but I would guess it, too, will eventually emerge. If it happens, however, that people play cooperatively in-game but fail to do so in real-life then what? Could it be because the game is somehow more engaging or otherwise qualitatively different than real-life, and if so how do we make real-life more like a game?

We *need* to address the growing lack of concern in America for a working democratic system, and, more generally, we need to cultivate wisdom in our citizens. The best way *I* can help do this is by playing off of my strengths which happen to coincide with a growing past-time of our populace. The creation of a guild in *World of Warcraft* with the main goal of fostering a sustainable cooperative is one step towards sustaining a more democratic and socially responsible citizenry.

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