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Game Journalism

Hard Data for Soft Science:
Attempting to Make Sense of Online Communities

Science is awesome. This is fact unquestionable to just about everyone and anyone on the planet (Ok, well not everyone on the planet but this isn't about them). Science is awesome, but not all sciences are created equal. Some are considered *hard* sciences, like chemistry, physics, etc.; and some are considered *soft* sciences like psychology and sociology (*Wiki*). The hard sciences are quantifiable. Scientists can use data to design experiments and really understand what the results mean. Soft sciences, however, which includes everything from sociology to pyschology to cultural anthropology, have much harder time coming up with quantifiable data. It is simply too hard to study humans and fully measure their actions, behaviors, thoughts, etc. That is, until the creation of online communities and the popularization of Massively Multiplayer Online Games (MMOGs).

These virtual realms, being bits of data to begin with, are fully quantifiable. Every action of a human within these realms can be stored and catalogued for future reference if needed. Those who design and run these games of course keep track of purchasing information and the like, and probably do keep track of some players in order to ensure customer satisfaction and the like. However, developers are not gathering data from their customers in the name of science. There is of course, the question of personal freedom. Is it right to pry into the private data of individual customers even in the interests of science? Can an online community even be considered "private" at all? There are many legal and ethical questions to be discussed on this subject, but it remains true that these communities offer a window into understanding human behavior on an unprecedented scale and level of detail.

Researchers are in no way ignorant of the research possibilities of online communities, but they are limited in their methods. The two most common methods of obtaining data for research are *cognitive ethnography* and emailing out *surveys and questionnaires*. Other than these two methods, researchers are forced to rely on other people's data (most likely obtained from cognitive ethnography or questionnaires). There are always problems with these types of research in their accuracy and overall production of useful data. However, if researchers were given access to player data directly from the source, the developers of the game, they would have a new world of data on which to elaborate. If researchers and developers were to design online communities together, it would add a lot of hard data to the soft sciences.

It seems a little monstrous to advocate for researchers to study the customers of a service provider in a free-market environment, but then again no one's arguing whether this is ethical or legal. As customers, many millions of people already have surrendered reams of personal data to many service providers, algorithms, and online systems of any other kind. Many of these systems have a distinct economic interest in using this data to get more money from their customers by any means necessary. Market research and "data-mining" are in huge demand for any business, and it seems plausible that developers and corporations are already using customer

information to their own advantage in some way. The argument here is how to get accurate and verifiable data into the hands of scientists and researchers who have an incentive to publish popular papers, not expand their customer base.

Soft scientists of today have been studying online communities since the time of the MUDs (Multi-User Dimensions (*Social*)). The simplest method of studying any online community is known as *cognitive ethnography*. This is actually just *ethnography*, as the *"cognitive"* part was put on to describe that these experiences are virtual and thus in the mind. Ethnography is when a researcher goest to a place and lives with the people, all the while gathering as much data as possible. The researchers are active participants in whatever is going on in the research environment. *Participant observation* in this way then yields *thick description* (*More*). These are terms in science for doing something with people and then retelling exactly what happened and what everything meant as accurately as possible. Social scientists have used this method to study Games such as *Everquest* and *Star Wars: Galaxies* (*Social, More, Learning,*). Researchers play the games for themselves and record everything they did with within the game to the best of their ability. Most of these researches came out with a broader awareness of the social complexities of the interactions of players within these virtual environments.

In fact, researchers have argued that these online communities function as tools for their players to learn social and leadership skills:

There is little doubt that MMORPGs have become complex social spaces. Playing them is about more than mindlessly killing monsters: it is about learning and participating in the shared practices of a game community. As we argue, such online games provide opportunities for learning social skills such as how to meet people, how to manage a small group, how to coordinate and cooperate with people, and how to participate in sociable interaction with them. (*More Than*)

MMOGs may not be just a waste of time after all. If nothing else, players learn to cooperate with each other to reach shared goals. General cognition and literacy could also be improved by playing online games; provided a sufficiently rigorous discourse (*Cognition*). It's becoming clear that MMOGs are becoming more interesting to research scientists all over as a source of interesting data. However, ethnography, virtual or not, has always had one major flaw. The researcher is taking part in the activities he/she is researching. This affects people's actions, and it becomes difficult to declare the behavior of the subjects as "naturally occurring" or not. By being part of the experiment, they effect its outcome. This makes the results of their research more difficult to interpret.

If researchers were behind the scenes with the developers, they could devise methods of observing player behavior that did not require the researcher to interfere with the natural behaviors of the subject. An example of this would be an invisible floating camera controlled by the researchers. This would greatly increase the validity and accuracy of ethnographic research on online communities. The developers would have to include an addendum to their Terms of Service Agreement that explicitly states that customers could be monitored. Unlike in reality, these researchers would not necessarily be looking to improve the quality of the game, but to

answer research questions about human behavior. In reality, researchers are probably used to monitor customer satisfaction and little else.

Another method used by researchers in the soft sciences is the simple use of questionnaires. The researcher isolates a cross-section of a population, and sends surveys and questionnaires to them by a variety of means. Some of these people fill out the surveys and send them back, often with some incentive involved. A similar method involves researching polling data from online sources, which is more common in studying online communities. Just about all soft science data from from various forms of this method of research. There are always questions of self-selection (certain people like filling out questionnaires more than others), accuracy (is the survey response reliable to a cross-section of the population?), and validity (does the survey measure what it's supposed to measure?). However, researchers are well aware of the problems and use sophisticated means to make their data as reliable as possible.

An interesting new project along these lines is called *Project Massive*. (*Seay*.) It is a polling website where users freely fill out questionnaires about multiple aspects of online and virtual communities. The project is ongoing and has been gathering data for several years. One of Project Massive's findings is that online players, especially those involved in *Guilds*, have networks of communication and relationships that extend well beyond the game itself. Guilds are community organizations formed by players within a virtual world. These organizations often work toward specific goals and often compete against other guilds in doing so. The relationships formed within guilds and other types of online organizations further illustrates the depth and variety of experiences players are exposed to in playing MMOGs, and how those experiences and relationships are also relevant outside the game world. Project Massive serves as an interesting stand-alone tool for providing useful data on players, games, and guilds. It is not expressly funded by any corporation, but is focused on helping developers make better games, not on furthering research study. The fact that is not corporate-funded is also one of Project Massive's weaknesses. Some of the links on the website are corrupted by porn, and the site does not provide much in the way of discussion of the findings themselves. If this type of data were kept by the developers themselves, sites like Project Massive would be able to focus on consolidating data provided by developers rather than polling players themselves. This would streamline the process and allow the site's creators to focus on maintaining their website.

Stepping back a bit, it seems prudent to ask another question, "Why should we care?" True, it seems that players can learn many types of skills from online video games, but what are researchers learning about humans in studying these online communities? In addition to social learning research, here are some other possible areas where online gaming communities could be useful platforms for research scientists.

One of the most interesting mysteries to be explored in studying MMOGs is the mystery of gender. Players can usually choose the gender of their avatar no matter what their physical gender is. Existing research into in MMOG players in the game *Everquest* finds that the majority of players are male (85%) and that all players have an average age is 25 (*Yee*). Female players are usually introduced to the game by a significant other, which helps explain why they are generally older than male players (stable relationships usually happen at older ages). This is relatively old data which doesn't track MMOGs that are specifically designed for female players, but just this sample of data is enough to yield interesting questions about the roles of

relationships and gender in online environments. These questions could be explored much further if researchers had access to the data directly from developers instead of polling websites and forums like the researcher cited above. As the post-modern era continues, and both genders renegotiate their roles, it may be useful to design experiments that explore gender roles through online community platforms.

Another interesting phenomenon that researchers and developers could explore is the online disinhibition effect. This is the effect of having all the normal social mores that help shape our behavior taken away. One might think that this would unearth one's *true* nature, but the truth is probably more complex. Suler argues that instead of our *true* nature, these online environments instead create entirely new constellations of social environments and behaviors that are no more or less *true* than those of the outside world (*Suler*). Nevertheless, online communities provide an outlet for many behaviors considered unacceptable in normal public life. Violent acts are chief among these unacceptable behaviors, and a detailed study of aggressive players in a game could be an invaluable tool in analyzing adolescent violence. If researchers and game developers worked together in this regard, it could be an invaluable tool for the pursuit of science.

Online communities have become extremely important form an economic perspective. Micro-transaction, where players buy game items for real money, are an emerging force in online games with formidable economic implications. Some of these communities, such as Second Life or Everyquest, have a larger GDP than some developing nations (*Yee*). Since online communities are already a platform for economic experimentation, it makes sense to start quantifying these experiments for research purposes as well.

There are many other areas of research where study in online communities could help further research in non-virtual areas of life. The important thing is that this research will only go so far in its understanding of human behavior with the methods currently available. Developers should invite social researchers into their facilities for the purposes of scientific research in general. Some companies, such as *eGenesis*, have considered their online game *A Tale in the Desert,* as a social experiment as much as a game since 2003 when it was launched (*eGenesis*). The game's designers have occasionally interfered with the game world in less-than scientific ways as their own sort of experiments, such as when a shop owner suddenly refused to serve any women (*Rogers*). If there are already game developers out there willing to act as researchers themselves, it may not be such an incredible claim to call scientists and developers to work together. This could go a long way to adding some hard data to the soft sciences.

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