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# Behavioral Game Play: Social Narrative of Peer Group Observations

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**Abstract**

Games are seldom played in isolation and there is invariably a social context. This does not just apply to multi-player or online games, but also to games played in private where they form part of the shared experience of many peer groups. What is clear from the literature is that peer groups also exist between game players, on the internet or in a HAL (Home Area LAN) situation. The literature however seems sparse on how HAL scenarios affect relationships within the peer group; are the same status criteria in effect while game playing? Does the social standing within the group affect the style and competence of play? Do modern games support the peer group development, or do they foster situations which strain the relationships and/or cause fragmentation within the group? This paper is the result of an eight month observational study to identify factors which may influence the behavioural gameplay within a peer group.

*Key-Words* : Computer Games, Cultural Usability, Peer Groups, Design

## 1 Introduction

In considering computer games from the point of view of culture (and indeed many other points of view) a number of questions arise, and this study seeks to examine some of those questions relating to the social context in which games are played. Studies have shown that there is an important social dimension to game playing[1][2], and this applies to both single games on stand-alone games platforms or when games are played in a more obviously social environment - via the internet or on a home area LAN (HAL). We present a qualitative observational study, undertaken from a viewpoint of cultural usability, which discusses a snap-shot of a peer group of adolescent game players - their actions, interactions and the social aspects and consequences of their game playing.

## 2 Peer Groups

We begin the study by defining peer groups as "a small group of similarly aged, fairly close friends, sharing the same activities" [3]. Adolescents spend a large amount of time in these groups, indeed according to one American researcher; adolescents spend twice as much time with this peer group as with parents or adults [4].

Peer groups have been shown to have a great influence on both the morality and standards of behaviour an individual will develop. Indeed research has argued that teens need the support and guidance of their peer group in order to meet society's demands for: social independence, relationships with both genders and the progression to adulthood [5][6].

The question then is what do these peer groups contribute to the individual? According to Atuater (as cited in Springsteen [7]) adolescents learn many important social skills from their peer group including mechanisms of social interaction, mutual support

and autonomy from parental control and so on. Elements of this behaviour can be found in the way adolescents play games.

With the advent of MMOG (Massive Multiplayer Online Games) software titles, peer groups within the arena of game playing can now offer multidimensional relationships, and individuals may well have a diverse set of personae.

What is clear from the literature is that peer groups also exist between game players, be it online in MMOG offerings or in a HAL situation [8] [9].

Indeed much of the recent literature has been associated with the role of online games in the social aspects of regular players e.g. promotion of aggressive behavior, gender influences, online interactions etc[8] [10] [11] [12] [13] [14].

One area of research which may have relevance in peer behaviour has been the development of what is termed "Cultivation Theory".

*"Cultivation theory is concerned with the sociocultural outcomes of TV proliferation into modern society. It views television as a unique mass medium that serves as a homogenizing agent for what otherwise may be divergent cultures. Through the patterned repetition of messages and images, television creates a unique but shared symbolic environment"* (Gerbner 1998[15]).

Gerbner goes on to argue that in the case of violence on TV, *heavy* viewers will regard the world as more dangerous than *light* viewers and that the influences from the TV spill over in attitude changes in everyday life. This theory has also been applied to the aspect of violence in computer games [16], where it is argued that violent game play predicted higher estimates of perceived violent crime, although this study does highlight the differences in narrative structures etc between the two media.

The literature seems to indicate clearly that video games and gameplay can have influences both in the attitudes of the players to the "real world" and their social skills. From the point of view of cultural usability there is a lacuna in evidence of how computer game playing can affect relationships *within* an existing peer group.

# 3 The Peer Group Observation

A peer group of mixed gender teenagers were the subject of a number of game playing observational studies over a period of 8 months. The peer group was provided with different sets of gaming facilities (discussed in detail below), chosen to explore how the group dynamics affected the way games were played. The resulting data was gathered from interviews conducted before and after each scenario had been undertaken, and in most cases the scenario was observed.

The peer group recruited to the study conformed to Kircler's definition[3] (given above), with one of the shared activities of the group being playing computer games. The structure of the group was an inner core of four adolescent males, who socialised outside of their computer gaming activities. Additionally there was an ephemeral outer group of younger siblings (which included females). Normally at least three of the inner core were present at the experimental sessions, and occasionally they were joined by one or more from the outer group. Although it is difficult to generalise on the results of a single (and possibly atypical) peer group, it is hoped that the data will provide sufficient information to justify further investigation.

## 3.1 Experimental Scenarios

A number of different scenarios were explored, with all but the first and fourth scenarios were uncontrolled (no adult observer was present).

**Scenario 1** A "Game Fest" weekend for core players only. A single PC was provided. Three out the four players were interviewed after the weekend. Behaviour of the players was reported in interviews.

**Scenario 2** A "HAL Fest" weekend. Three of the core teenagers, plus all of the outer group in a HAL (four players active at a time) play for a whole weekend, simple FPS co-operative game.

**Scenario 3** A Games day, where 2 or 3 of the core games players were allowed to play.

**Scenario 4** A Games day for 2 or 3 core players, play over an HAL without parental control, and on occasion at a separate venue.

**Scenario 5** Games days. Two core players on Xbox setup, initially no LAN. Later two Xboxes linked.
**Scenario 6** Single Player Xbox, with at least two of the core players and joined occasionally by members of the outer group, offering cooperative assistance both invited and uninvited. Initially using a familiar game, and then a new game to all players.

# 4 Results

The following is a brief annotated discussion of observations.

## 4.1 Single PC Play

The Game Fest (Scenario 1) consisted of playing "Counter strike" (the peer groups' current favourite) as single players. The problem reported by the peer group within this scenario was the lack of engagement in the gameplay.

Their chosen style of play consisted of one subject playing the game, with two others observing. The player relinquished the game, when his character was killed. This progressed for a three hour period on the first day. After the weekend the players were asked how this system worked, whether they enjoyed this approach and to what extent it fulfilled both their expectations and their gaming enjoyment.

The "expert" game player (according to the peer group ranking) thoroughly enjoyed the session, and by implication was satisfied to show his skill levels towards both of the other gamers. Other gamers complained of "back seat driving" when their own turn became active. Two out of the group (the least experienced and least skilled gamers), reported that if only one platform was available, then this was the most appropriate style of playing the game for the group. If more hardware was available then this would be preferable as this mode of play was considered "boring", and led to their pursuing other activities until they had their turn on the computer.

The next stage of game play involved competitive or "death match" games. This proved to strain relationships because the less skilled players were unable to compete on equal terms with the more skilled members of the peer group. After such a games session, other competitors reported that they were bored or took long walks leaving the "expert" player to continue alone. The play was abandoned to avoid the risk of damaging "friendships". The competitive approach is anti-collaborative and is only successful if one or more members of a group enjoy the position or role of voyeur and advisor. The players graduated to playing co-operative (as opposed to competitive) games later in the experiment.

The provision of only a single PC made co-operation difficult, and in many respects the only way collaboration could be achieved is when players were prepared to play the role of advisor. Undertaking this role required managing a delicate balance between being helpful and being overbearing. This role in the main should be passive for if it becomes too active the knowledge of the voyeur supersedes the discovery and explorative enjoyment of the game player.

Caesurae in the game play (meal breaks etc) served a useful purpose in the single player scenario, as the players used these to discuss what to do next whilst the game was paused or saved at a suitable juncture. Indeed it emerged from the post-session discussions that the group actively sought to play games with suitable save facilities to enable breaks, although there was in fact a reduced tendency to terminate the "ongoing game" even with a suitable save-game implementation.

Gameplay continued until late into the night or early morning i.e. 2 - 3 am. The peer group members were late risers the next day and reported overtiredness. The group members reported an increased awareness of aggressive behaviour in themselves and amongst their peers, noticing a general unwillingness to compromise during discussions (this was confirmed by discussions with subjects' family members after the experience).

It is not clear if this is as a result of playing violent or aggressive computer games - as suggested by cultivation theory - or due to the external factors such as lack of sleep, irregular meal breaks and so on.

## 4.2 Gaming over a HAL

A more successful approach to group game playing was the development of a small LAN party in Sce-

nario 2. Each player brought their own PC based system and these were connected in a peer-to-peer network. One player's machine then acted as a server to the game environment (this was usually the most powerful computer) and a multiplayer environment was spawned. This scenario differed from that of a true LAN party in that the number of players is limited to the members of the core peer group. Although in one particular scenario the observer's machine was connected to provide "outsider" (ie outside the peer group) participation. This provided for much greater interaction within the game, and also outside the game by shouting insults or encouragement.

The simple co-operative 4 player first-person shooter (FPS) was extremely successful. The game played ("Blockade") did not require complex interactions with the platform (multiple key combinations and so forth) to be played well and as a result less skilled core players and outer group members could participate fully, making it popular amongst both groups. However when the three core players were left to themselves to play they reverted to either to more familiar games (in particular "Counter Strike"), or unseen games in order to complete them. In a "Counter Strike" multiplayer game the peer group "expert" was allowed to define the game level and winning criteria, whilst lower-ranked players chose roles to support the expert's position, and unifying the group behind its "leader". It was confirmed in subsequent interviews that this was a normal style of play for the group. Occasionally a lower ranking player would detach himself from the main group activity however, and although continuing to play the game pursued independent goals, and returning at a later stage to the group activity.

Policing break times was considered to be a severe intrusion on the group, even when timed to coincide with game playing scenarios or set ups.

When members of the outer group wished to participate in a pre-existing game player scenario such as counter-strike the move was opposed by most of the members of the group, and when adult enforced it was rapidly dismissed as unworkable or "boring". As such these events proved unsuccessful.

In the scenario of an "outsider" influence it was interesting to note that in a multiplayer game, normally played co-operatively ("Counter Strike"), the outsider became the secondary target in a kind of co-op death match - "who can kill the outsider first" , especially in situations where the peer group used a well-recognized game-level which was new to the outsider.

After a short period of play however, this approach was reported as "boring" by the players, and the play reverted to a more consistent form of co-operation with the outsider tolerated as an unskilled assistant. As outsiders became more familiar with the gameplay and the players, they were effectively added into the peer group. This led in fact to a better relationship outside the game between the outsider and the peer group players.

It was noted that the aggressive behaviour was evident, but in this instance it was more noticeable by the adults when a "Counter Strike" session had been played, rather than the simple multiplayer FPS when a lighter mood was both reported and observed. In this instance the potential external influences on aggression (lack of sleep and food) were moderated by the presence of adult facilitators.

Scenarios 3 and 4 served to confirm observations made in these earlier scenarios on both the style of gameplay and attitudes of the peer competitors.

### 4.3 Single and Networked Games Consoles

Scenario 5 involved the use of a two player approach on one Xbox console similar to that encountered in scenario 1. None of the subjects had played the game "Ninja Guiden" before, and as a result devised their own rules for allocating turns in playing the game. Each player took a turn at playing until their avatar died or completed a section / level. This effectively provided a form of game handicapping such that the active game player could not go beyond one level past where the inactive player or players had attempted. This meant that there was only one level's experience between the inactive and active players. As such the engagement factor increased because of interest from both players in the next level.

Additionally in scenario 6, it was possible to have voyeur status as a peer group outsider and become involved with the active play of the group. This then

evolved into a shared experience and fostered conversation which persisted well beyond the game playing session.

# 5 Discussion

When sharing a single games platform it is noticeable how much effort is expended in preserving the integrity of relationships within the group: avoiding competitive games, ensuring that the expertise acquired in playing new games was restricted to ensure that all could participate on as equal a basis as possible. This resulted in cooperative games being preferred as a means of keeping friendships intact. What has become apparent from this initial attitude, which then permeated all other game playing scenarios, was the desire to find a true co-operative game.

This attitude is reflected amongst the current generation of game players according to interviewees the desire is now to move away from the "death match" scenario and to truly co-operate on a shared task. Indeed it can be said that we are in fact witnessing an "inverse cultivation" effect where the game players are in fact influencing the game designers rather than the game cultivating attitude changes in the perceptions of the game players as indicated by Gerbner et al[15].

Differences were noted in the before and after interviews in the level of communicativeness displayed by the peer group. In some cases the laconic responses to questions prior to a session contrasted with a more enthusiastic response afterwards on the basis of the shared experience of playing the games, almost regarding the observer as part of the peer group.

It is clear that there was a complete difference in the events when a facilitator was involved; meal breaks and end points were considered as intrusions by the peer group, however the addictive influence of the games and the consequences of lack of sleep and food were curtailed.

It is encouraging to note that whilst the results are not conclusive with such a small observational study, peer group play can strengthen relationships within the group and in the right context offer an inclusive approach to a somewhat exclusive group.

# 6 Conclusions

Although it must be emphasized that only one peer group was studied and that this in itself can lead to anomalous or spurious observations, nevertheless some of the conclusions that can be drawn from this study are of interest to the general study of peer group gameplay behaviour for games designers.

Are the same status criteria in effect while game playing? It is evident from the peer group expert's (as defined by the peer ranking) attitude during the single player scenario that confirmation of both status and position was important, as shown by the reported responses of the players in Scenario 1 to both the turn-based and death-match games. It is noticeable that the "expert" became the peer group leader during gameplay, whilst not being in that position for more social events where the ranking is not clear.

Does the social standing within the group affect the style and competence of play? As referred to above in the results for Scenario 2, peer group ranking and structure were confirmed by the roles assumed and style of play in a multiplayer game.

Do modern games support the peer group development, or do they foster situations which strain the relationships and/or cause fragmentation within the group? Members of the observed peer group have developed their own culture of gameplay with its own moral code and rule structure. Players are expected to adhere to this code and any infringement leads to the consequence of exclusion from the game for an indeterminate period of time. The group appears to display an inverse cultivation approach to the games on offer - this inverse cultivation in terms of co-operative play is reflected in market's current stress on "true co-op" games (eg the latest version of "Splinter Cell"). An interesting finding is periodic detachment and reattachment of lower ranked players during the game.

"Outsider" status initially leads to a defended core approach but inclusion into the active group play scenario may ultimately develop.and are considered as a possible exception to the gameplay rules - One way only i.e. they "are" expected to adhere to the group's code of gameplay - peer group members "may" break this code on a "small" number of occasions. Engage-

ment in game playing leads to an improvement in outside relationships and also talking bridges for an outsider.

All of this points to the existence of a significant social context in which games are played. All of this points to the existence of a rich *social narrative* which forms a part of the ideas developed in another study by the authors[17].

Given the importance of the peer group in adolescent gameplay, the cultural usability considerations of how games are played are extremely important if games designers are to meet the demands of their marketplace.

*References*


[1] Subrahmanyam K., Greenfield P., Kraut R., and Gross E. The impact of computer use on children's and adolescents' development. *Journal of Applied Developmental Psychology*, vol. 22(1), January-February 2001, pp. 7–30.

[2] Roberts D.F. Media and youth: access, exposure, and privatization. *Journal of Adolescent Health*, vol. 27(2 Supplement 1), August 2000, pp. 8–14.

[3] Kircler E., Palmonari A., and Pombeni M. Developments Tasks and Adolescents' Relationships with their Peers and their Family. In Jackson S. and Rodrquez-Tome H. (eds.), *Adolescence and Its Social Worlds*. Lawrence Erbaum Associates, Hillsdale, USA, 1993, pp. 145–167.

[4] Brown B. In Feldman S. and Elliott G. (eds.), *At The Thersold: The Developing Adolescent*. Harvard University Press, Cambridge, Massachusetts, 1990.

[5] Conger J.J. *Adolescence and Youth Psychological Development in a Changing World*. Harper and Row Publishers, New York, 1973.

[6] Douvan E. and Adelson J. *The Adolescent Experience*. John Wiley and Sons Inc., New York, 1966.

[7] Springsteen J. *Demystifying Adolescence*. Service-Learning Direct, Vancouver, WA 98661, 2003.

[8] Kolo C. and Baur T. Living a Virtual Life: Social Dynamics of Online Gaming. *Game Studies*, vol. 4(1), November 2004.

[9] Rheingold H. *The Virtual Community*. Addison-Wesley, New York, 1993.

[10] Beasley B. and Collins S.T. Shirts Vs Skins: Clothing as an indicator of Gender Role Stereotyping in Video games. *Mass Communication and Society*, vol. 5(3), 2002.

[11] Scharrer E. Virtual Violence: Gender and Aggression in Video Game Advertisments. *Mass Communication and Society*, vol. 7(4), 2004.

[12] Manninen T. Virtual Team Interactions in Networked Multimedia Games - case: "Counter Strike" - Multi-player 3D Action Game. In *Proceedings of PRESENCE2001 conference*. Philadelphia, USA, 2001.

[13] Anderson C. and Bushman B. Effects of violent video games on aggressive behaviour, aggressive cognition, aggressive effect, psychological arousal, and prosocial behaviour: a meta-analytic review of scientific literature. *Psychological Science*, vol. 12(5), 2001.

[14] Sherry J. The effects of violent video games on aggression: a meta analysis. *Human Communications Research*, vol. 27(3), 2001.

[15] Gerbner G. Cultivation Analysis: An overview. *Mass Communication and Society*, vol. 1, 1998.

[16] Mierlo J. and Van den Bulck J. Benchmarking the cultivation approach to video game effects: a comparison of the correlates of TV viewing and game play. *Journal of Adolescence*, vol. 27, 2004.

[17] Noriega L. and Chandler C. Do games tell stories or do stories play games? The narratological analysis of computer games (in Preparation).