

# Game Mediated Communication: Multiplayer Games as the Medium for Computer Based Communication

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## ABSTRACT

As multiplayer games evolve in functionality and with respect to the number of participants, in-game communication between players is increasing. As in-game communication increases, games may be considered the natural medium for computer based communication in general. Special issues may arise due to the real-time nature of many games, as intraplayer communication must not interfere with other parts of the gameplay.

To obtain information on the extent to which computer based chat is spontaneously associated with multiplayer games, an empirical study was conducted. Children from age 10 to age 15 were interviewed about their computer based communications. To ensure unbiased results, game related issues were never brought up by the interviewer.

Results show that multiplayer games were spontaneously pinpointed by 16.83% of the interview subjects being asked about their computer chat habits. Positive remarks dominated, but some negative aspects were also mentioned, such as difficulty chatting and playing simultaneously.

## Keywords

Multiplayer games, chat, game mediated communication, in-game communication.

## BACKGROUND

As computer games have evolved over time, many new features and aspects have been introduced. Different game genres have their own set of typical features, styles, and goals to achieve for the player. While genres like adventure games, role-playing games and first-person action games all may have a strong emphasis on the story or plot in their single player forms, this emphasis on predefined story is reduced in their multiplayer counterparts. This shift can be quite notable, as Klastrup puts it: *“Did anyone notice when the story left?”* [8]. The narrative burden in single player games lies solely on the game designer, while in multiplayer games this, at least to a degree, is replaced by the interactions among those participating in the game.

Proceedings of DiGRA 2005 Conference: Changing Views – Worlds in Play.

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With multiplayer games, the element of player-to-player communication is introduced. Other forms of communication are still present, such as player-to-NPC (Non Player Character), much in the same way as in single player games. In multiplayer games, however, the player interactions, including verbal communication as well as other forms of interaction such as combat, can make up the major content of gameplay. These player interactions shift the burden of producing the plot away from the game designers and onto the players themselves.

Player-to-player communication may be divided into several categories, which may in turn be subdivided further. On the top level a distinction can be made between in-game communication and out-of-game communication, the latter often taking place in web based forums. During such out-of-game communication a variety of game related information can be shared, including topics like strategy tips and codes that enable hidden features in the games. An interesting variant is described in [4], regarding the family album feature in the online version of The Sims: *“What the designers did not anticipate was that players would use this feature to craft stories starring their Sims. Suddenly, the family album became a comic book.”*

Sometimes, the communication may require a combination of out-of-game and in-game communication. This is described in [1], in the case of buying and selling game items for real money: *“Earthling A gives Earthling B the money. Then they both create avatars in Norrath and meet at an agreed-upon spot.”* The real-world trading place may be an internet based auction house, as further noted by Castronova: *“On an ordinary weekday (Thursday, September 6, 2001), the total volume of successfully completed auctions (N-112) was about \$9,200.”* Such trading of game entities in the real world is strongly discouraged by some game developers, and in a later paper Castronova notes countermeasures emerging: *“In Ultima, you can directly buy your levels; in Camelot, you can start a new avatar at level 20 if you have already gotten one to level 50. These strategies help companies discourage the buying and selling of avatars outside the game”* [2].

In-game communication can occur not only while acting out your game characters personality, but also without such considerations. In-game communication can therefore be subdivided into in-character and out-of-character communication. In-character communication takes place during actual gameplay, mediated through the player’s avatar, and is normally performed in such a way that the style and atmosphere of the game is preserved.

However, also out-of-character communication can occur in-game, as a result of players breaking the flow of play, chatting without using the personalities of their game characters. In game genres relying heavily on atmosphere and game characters personalities, such as online role-playing games, this type of out-of-character communication is often discouraged since it has a negative affect on the atmosphere and flow of play. This is noted by Pajares Tosca in her study of the online version of the role-playing game Vampire: The Masquerade – Redemption: *“In my experience, players will only go OOC” [Out-Of-Character] “when they experience some technical problem”* [12]. In other situations, such as when a game session is being set up, out-of-character communication is more common. As Heide Smith observes: *“Age of Empires matched players for multi-player battles through a web interface that required some amounts of chatting and opened up a variety of trust issues. For instance, players would often lie about their skills in order to find willing opponents”* [6].

Regarding in-character communication Heide Smith further notes that an overwhelming majority of the participants in a survey of his either mostly agrees or totally agrees to the statement “*Communication/chat with other players is an appealing part of online gaming*”, and that 81.4% of the participants (those replying “*Sometimes*” excluded) stated that they often or all the time judged other players on the basis of dialogue [6]. This interplayer communication is an aspect of multiplayer games that may leave a strong impression on the player. As Klastrop describes her impressions after a study involving participation in the online role-playing game EverQuest: “*I also take with me the experience of becoming part of a social network which goes beyond the individual character*” [9].

Also in action games with a more modest number of players and a higher degree of fast combat situations, player-to-player communication may be a key feature, as observed by Wright et al.: “*The meaning of playing Counter-Strike is not merely embodied in the graphics or even the violent game play, but in the social mediations that go on between players through their talk with each other*” [15].

With real time player-to-player communication in place, multiplayer games fulfil the criteria for Networked Virtual Environments, Net-Ves, as defined by Singhal and Zyda: “*1) A shared sense of space, 2) A shared sense of presence, 3) A shared sense of time, 4) A way to communicate, and 5) A way to share*” [13]. If the communication includes not only text based chat but also sound, crucial parts of the “*Rich Interaction*” outlined by Manninen can be implemented in multiplayer games [10]. Such interaction can include paralanguage, the non-verbal audio part of speech [11], and informative spatial sound effects that may add significantly to realism. As Furness points out: “*Humans like parallel input. People make use of a combination of sensory stimuli to help reduce ambiguity. The sound of a letter dropping into a mailbox tells us a lot about how full the mail box is.*” [5].

The playing of communication-intensive online games may be a time-consuming task, performed many hours per week. A survey conducted by Egenfelt-Nielsen shows that 70.91% of those participating played online games 6 hours or more per week, and 46.94% played 12 hours or more per week. As many as 17.24% played 24 hours or more per week [3]. A study by Castronova on the massively multiplayer role-playing game EverQuest shows that 31.5% of the players over 18 years of age devoted more time in a typical week to playing EverQuest than they did to working [1]. Sony Online Entertainment Inc. reports having sold over 2 million copies of EverQuest, experiencing over 118,000 simultaneous players during peak hours. Sony Online Entertainment Inc. reported having more than 750,000 active player accounts in May 2004 [14].

## **RESEARCH QUESTION**

As in-game communication is a key issue in many multiplayer games, possibly forming the very core of the game in some cases, computer mediated communication may be closely associated with such games. As such games are being played by a large number of players, its possible that these games are perceived by more and more people as the natural place to perform such communication in general. Consequently, the very concept of chatting, either textually or by voice, may in effect be associated with multiplayer games by some individuals. The question arises: Is multiplayer gaming on its way to take over as the natural medium for computer based communication, leaving traditional web based chat forums behind in the process?

As the concept of chatting can be perceived as having advantages and disadvantages, its incorporation into multi-player games may lead to positive or negative effects for gameplay, perceived differently by different players. The research issue addressed in this paper is to find out if computer based chatting is primarily associated with multiplayer games by some individuals, and, if so, the nature of these associations.

## **METHODOLOGY**

The empirical contribution of this paper consists of an interview study performed in two schools in Sweden. Students in 4:th to 9:th grades (normally corresponding to ages 10 to 15) were interviewed about a range of activities related to communication through computers. In this paper the findings regarding chat and multiplayer gaming are described and analysed.

In each age group students from a whole class were interviewed, to ensure that not just students interested in computer related issues participated. Classes were selected at random, with the option for the teacher to decline if he/she felt the need to do so. However, all teachers welcomed their students to participate in the study. Students not present in school on the days of the interviews were excluded from the study.

A key aspect of the interviews was not letting the interview subjects know that computer games were of specific interest. To achieve unbiased results, the interviewer never mentioned game related issues in the questions. This method was chosen specifically, so that the interviewer did not influence the students to focus on computer games more than they would otherwise have done spontaneously. Only in follow-up questions when the student had already brought up game related subjects did the interviewer explicitly refer to game issues.

The interviews were conducted individually, away from class. The students retained full anonymity, only being identified by an untraceable sequential number. Each student was clearly informed of this anonymity. By taking these measures, the risk of students not daring to speak freely was reduced as much as possible.

The interviewer followed a fixed questionnaire to ensure equal coverage of topics with all students. All interviews were recorded in their entirety on a portable tape recorder. Key quotes were translated to English for the purpose of appearing in this paper.

## **RESULTS**

131 students were interviewed, 101 reporting chat use. When questioned about chat habits, 16.83% of those chatting spontaneously related to multiplayer games. When asked "*What is good about (computer mediated) chat?*", 12.87% of the computer chatters pointed out chat situations in games. When asked "*What is bad about (computer mediated) chat?*", 3.96% of the computer chatters pointed out chat situations in games.

### **By age, grades 4-6**

17.07% of the 41 computer chatters in grades 4-6 (normally corresponding to ages 10, 11, and 12) spontaneously related to chatting in games. When asked "*What is good about (computer mediated) chat?*", 14.63% of the computer chatters pointed out chat situations in multiplayer

games. When asked “*What is bad about (computer mediated) chat?*”, 2.44% of the computer chatters pointed out chat situations in games.

### By age, grades 7-9

16.67% of the 60 computer chatters in grades 7-9 (normally corresponding to ages 13, 14, and 15) spontaneously related to chat within games. When asked “*What is good about (computer mediated) chat?*”, 11.67% of the computer chatters pointed out chat situations in multiplayer games. When asked “*What is bad about (computer mediated) chat?*”, 5.00% of the computer chatters pointed out chat situations in games.

### Quotes pinpointing situations in multiplayer games

**Table 1:** Positive quotes about chat, spontaneously mentioning multiplayer games.

Quote	Gender/Grade
<i>“That you can talk to the others in the same game”</i>	Boy, grade 4
<i>“That you can talk when you play”</i>	Boy, grade 4
<i>“That I can team up with others when I play”</i>	Boy, grade 4
<i>“That you can help each other in Counter Strike”</i>	Boy, grade 4
<i>“That you can play in teams and talk to the others”</i>	Boy, grade 8
<i>“Then you can play in teams. Because you’ve got to talk then”</i>	Boy, grade 9
<i>“Its fun in Counter Strike”</i>	Boy, grade 7
<i>“Its a great thing in Counter Strike”</i>	Boy, grade 9
<i>“That you can warn your friend in Counter Strike”</i>	Boy, grade 6
<i>“If someone is stupid when you play, you can tell them”</i>	Boy, grade 5
<i>“That there are quick replies in net games”</i>	Boy, grade 7
<i>“That you can scream when you get shot”</i>	Boy, grade 7
<i>“Cool with mic chat in CS”</i>	Boy, grade 9

**Table 2:** Negative quotes about chat, spontaneously mentioning multiplayer games.

Quote	Gender/Grade
<i>“It can stop the game”</i>	Boy, grade 4
<i>“That they say swear words when they play”</i>	Girl, grade 9
<i>“When you miss something because you chatted. In games i mean”</i>	Boy, grade 7
<i>“That there is no time to play too”</i>	Boy, grade 8

### DISCUSSION AND ANALYSIS

A key issue when conducting this study was not revealing that games related issues were of interest. The interviews then showed to what extent the interviewed students spontaneously associated computer based chat with multiplayer games. Only in cases where the student brought up the subject of computer games did the interviewer discuss this topic. This way, the results indicates the extent to which computer based chatting is spontaneously associated with multiplayer games.

The method of interviewing entire classes in school has the advantage of not just reaching the

computer enthusiasts. In studies performed on volunteers, it must be taken into account that the participants may be more interested in the subject at hand, or at least more active and willing to take part in a study, than other people in general. This potential problem has been reduced as much as possible by interviewing not just enthusiastic volunteers, but everyone in the classes.

### **Age issues**

The spontaneous association of computer based chatting with multiplayer games is almost on the same level in the two age groups, 17.07% for the younger (grades 4-6) students versus 16.67% for the older (grades 7-9) students. A larger difference can be found with respect to positive versus negative issues of computer based chat. The younger students had a very low frequency of associating negative aspects of chat with games, only 2.44% did that. Among the older students, more than twice as many, 5.00%, pointed out situations in games when discussing negative sides of chatting. Both these figures are low compared to when discussing positive aspects of the chatting, 14.63% in the group of younger students and 11.67% in the group of older students associated to games in this case. It is worth noting though, that the older students seem more aware of situations where chatting can have a negative impact on gameplay, although the positive side of it dominates.

### **Quotes from individual answers**

The answers from the students reveal various situations where chat is having either a positive or negative effect on gameplay. When asked *“What is good about (computer mediated) chat?”* and *“What is bad about (computer mediated) chat?”*, the replies contained various references to online multiplayer gaming, with the frequencies shown above.

Many of the answers were not specific about whether the communication is in-character or out-of-character. *“That you can talk to the others in the same game”* (Boy, grade 4), or *“It’s a great thing in Counter Strike”* (boy, grade 9), are examples of this. Many replies focused on the immediate specific use for chatting in games: *“Then you can play in teams. Because you’ve got to talk then”* (boy, grade 9), or *“That you can warn your friend in Counter Strike”* (boy, grade 6). Some answers most likely describes out-of-character-communication, like *“If someone is stupid when you play, you can tell them”* (boy, grade 5).

### **Positive versus negative issues**

Of the answers mentioning games, 76.47% came as a result of questions about what is good about chat, while the corresponding figure regarding what is bad about chat is 23.53%. Typical positive examples are *“Its fun in Counter Strike”* (boy, grade 7), *“That you can help each other in Counter Strike”* (boy, grade 4), or *“Cool with mic chat in CS”* (boy, grade 9). Some answers describe emotional situations where chatting is used to express strong feelings, like *“That you can scream when you get shot”* (boy, grade 7), and (indirectly): *“That they say swear words when they play”* (girl, grade 9).

The last quote above is one of relatively few negative-context associations. Most negative associations related to the flow of game time, *“It can stop the game”* (boy, grade 4), or related issues, as in: *“When you miss something because you chatted. In games I mean”* (boy, grade 7), or *“That there is no time to play too”* (boy, grade 8). As has been pointed out in [7], most action

games have a 1:1 mapping between player time and event time in the game, and in multiplayer games this event time is shared among all the players. In such games, there is no way to go back in time by reloading a saved gamestate. Thus there is a need to manage simultaneously chatting and playing. It is interesting to note that this is perceived as a problem by some, indicating that further development in this area might result in improved multiplayer games.

## CONCLUSIONS

Computer based chatting is spontaneously associated with multiplayer games by over 16% of the computer chatters in the study. While this figure might seem small, it's actually a significant indication that multiplayer games are perceived by many as the natural place for chatting. The interviewed students are not just those playing games, but all the students in the classes, including those never playing. In the light of this fact, the 16% figure is quite impressive, and even more so since computer games were never mentioned by the interviewer, but associated to spontaneously by the students themselves.

While chatting in games is perceived as a positive feature by the vast majority, some negative aspects are mentioned. This happened twice as often with the older students as with the younger ones, although still at a low level. Less than 24% of the answers spontaneously mentioning games were obtained when asking about negative aspects of chatting. It can be concluded, though, that chatting and playing simultaneously is perceived as a problem by some.

While this study does not provide the full answer to the question of multiplayer games taking over from traditional web based chatting, it's a first step on the way showing that some individuals already perceive multiplayer games as the natural medium for computer based communication.

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