

Communication Supports for Building World Wide Internet Game Communities

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Abstract. Communities play a vital role in online gaming world for promoting sustainability, and with the increasing popularity of multiplayer online games, they are becoming internationalized. While most online games allow players to communicate and collaborate with virtually any people in the world throughout the game related activities, little has been discussed on the communication support among the players speaking different languages. In this paper, we analyze the communication methods that can be used to facilitate various types of interactions in world wide online game communities, and suggest possible enhancements of them.

1 Introduction

Internet has provided an infrastructure with global connectivity on which game companies can develop and deploy online games. In particular, with the popularity of multi-player games, online communities have flourished, and playing online games is becoming a social experience. The feeling of presence and the level of psychological immersion are increased along with the communication among the players, and at the same time they can greatly increase the appeal and longevity of a game. Recognizing that interactions among the players are essential to the success of a game, game developers are increasingly designing games to encourage interactions between game players.

Accordingly, a number of communication supports are currently provided to promote online communities. These can be broadly categorized into in-game, out-of-game, and pre-game supports. In-game communication allows a variety of interaction types, including exchange of advice, social exchanges and small talks, and coordination and scheduling of activities. During the out-of-game communication, players share game tips, relate experiences, discuss strategies, exchange content, and arrange leagues and tournaments. Finally, pre-game communication includes the activities such as matchmaking other players with appropriate level and forming a team on the fly.

Increasingly online games are played by people who speak different languages and communities are becoming internationalized. Despite of this trend, we note that there are few research results that addressed the issues of supporting communication in such world wide game communities where the existing communication methods are limited mainly due to the language barrier. Motivated

by this, this paper seeks to analyze various communication methods that can be employed to better support global game communities, and discuss possible enhancements of them in various forms of interactions carried out in the communities.

2 Communication Methods for World Wide Game Communities

2.1 Text-Based Communication

Most common form of player-to-player interaction in online games is typed text. Text-based communication include chats, instant messaging, emails, message boards, and blogs. While emails and instant messaging are usually used by players for communicating with fellow players outside the game, most interactions during multiplayer games take place via chats which can be delivered to another player privately or broadcast to a group of players. In many MMORPGs that exhibit a complex social organization, chats are displayed in speech bubbles within the game world. Nevertheless, chats and instant messaging have limited capabilities with respect to personalization, availability of communication cues, and language variety.

Several enhancements can be pursued to address the limitation of text-based communication in global communities. These include (i) automatic sentence translation capabilities (among a few selected languages) as provided by some MMORPGs such as Ultima Online and Everquest, (ii) automatic word by word level translation service, rather than the translation of complete sentence, (iii) binding short keys to certain frequently used pre-defined texts which can be transferred to a recipient in the recipient's language (particularly effective when the players are busy playing games as in many sports games), and finally (iv) recommendation of appropriate expressions in a different language when a popular keyword pertaining to socialization is given.

Furthermore, message boards are frequently used method for out-of-game communication. As in the case of Enjoy Japan (<http://enjoyjapan.naver.com>), direct translation between the languages with similar roots is a viable method for the message boards defined for international communities. Nevertheless, this approach still requires a lot more work in terms of the automatic language translation research in order to be usable for the languages with different roots (e.g., Korean and English). Therefore, another possibility would be to promote volunteers in a community who interpret different languages, through the introduction of rewarding mechanisms in the community.

2.2 Image-Based Communication

For the game players who speak different languages, image-based method can provide an effective way for communication between the players at subconscious, emotional level. Special ASCII symbol combinations, known as emoticons that

express emotional tone, would be appropriate as an in-game communication method by which a player expresses his/her current feeling about the other player as well as the current game status. Considering that there are five or six different emotions a player usually uses during a game (e.g., happiness, sadness, anger, fear, surprise, and disgust), it would be worthwhile to provide a service through which a player predefines a certain key for a particular emotion and then uses these different keys to send emoticons whenever necessary.

Another promising approach is to use an iconic language which attempts to represent meanings with icons or flashcons. For instance, the users of GoPets (<http://www.gopetslive.com>) can send each other messages in icon-based language, called IKU, which substitutes pictures for words, allowing people from different countries to communicate with ease. In GoPets, icons that match a certain keyword can be retrieved. A possible extension of IKU would be to annotate each icon with a text to avoid semantic mismatch, since the same icon may have different meanings to people with different cultures. Furthermore, we note that the usability of an iconic language can be improved if the icon search is empowered by allowing a sentence instead of a keyword to be used as input. This can be accomplished through utilizing the results from the research field of story picturing which automatically generates suitable pictures illustrating a story by extracting semantic keywords from the story text.

2.3 Gesture-Based Communication

Many MMORPGs provide a wide library of socials that enable users to make characters in a game gesture through typing commands such as “/smile” and “/bow”. For instance, there are 153 socials available in World of Warcraft. These commands can sometimes be assembled into a macro, allowing certain actions to be accomplished entirely automatically.

In addition, avatars can be used to enrich the communication among the players. A player can personalize the avatar through appropriate and meaningful animation of the avatar’s body and face, making communications mediated through the avatar more lifelike and natural. Therefore, for some online games in which avatars are displayed throughout the game play, introducing an emotional avatar that makes gestures conveying context of the current game situation appears to be a viable approach.

Avatars can also be employed to improve text-based communication. The affective content of a textual message can be automatically recognized to generate animated avatars that perform emotional coloring of the message using appropriate gestures. Augmented with this kind of capability, avatars can provide an effective means to improve the expressivity of online communication among the users with different language backgrounds.

2.4 Multimedia-Based Communication

In-game voice communication has been made possible in recent years, and was incorporated in some games like Tribes 2. However, despite the fact that voice

communication enables players to communicate more easily and quickly and amplify emotion in games, it appears that voice communication like one based on VoIP was almost never used in MMP games. Therefore, effectiveness and appropriateness of in-game voice and video communication seem to be depend on the type of game in question.

Out-of-game supports for multimedia-based communication include the sharing of screenshots and video clips of game play and drawing tools based on flash technology that allow users to discuss on some specific subjects such as tactics and strategies necessary for team play. Furthermore, in view of fostering a global community, it appears to be essential to provide means by which users can create and share multimedia files that contain regional characteristics. For example, it would be helpful for two users, say one from USA and the other from Korea, to get acquainted with each other if they can play an online game together while a traditional Korean music selected by the Korean user is played as a background music.

3 Conclusion

While it is being recognized that community contributes significantly to the success of on-line games, the community is becoming defined socially, not just spatially. Whether it is MMP or MMORPG, members of a community need to be able to communicate with each other in-game and out-of-game, and the opportunity to play with people rather than AI is one of major motivations for many online gamers.

In this paper, we have discussed various existing communication methods that can be employed to facilitate interactions among game players in global communities, characterized as different languages and cultures, and proposed some possible enhancements of them. While the effectiveness and appropriateness of a specific communication method depend on the type of game in consideration, it appears that the current text-based communication methods can be supplemented and augmented through incorporating various other technologies such as automatic translation, iconic languages, emotional avatars, and cultural multi-media sharing to support more successful, vibrant global game communities.

As a future research work, we envision that considerable attention must be given to the problem of combining research efforts from various disciplines and practices to produce more comprehensive results in the area of communication supports for world wide multi-player online game communities. These results should be able to foster better human relationships and shared experiences through effectively socializing the users from anywhere in the world into the emerging world wide game community.

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