Enhancing Player Experience in MMORPGs with Mobile Features

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ABSTRACT

In this paper, we explore how current Massively Multi-player Online Role-Playing Games (MMORPGs) can use mobile features for enhancing player experience and increasing pervasiveness of these games. We identify six different categories of how this can be done, and review our findings with MMORPG players and developers.

Keywords

MMORPG, MMOG, pervasive, mobile, cross-platform, game, developer, player

INTRODUCTION

Björk et al [] define a pervasive game as "a game that is always present, available to the player. These games can be location sensitive and use several different media to convey the game experience." The purpose of this study was to identify and evaluate different ways how the current MMORPGs can be support better pervasiveness by enabling certain parts of the game to be played with a mobile phone. In order to limit the scope of this paper, we have focused on MMORPGs, but the results of this paper can be also be applied outside role-playing games to other kinds of large-scale online games.

It is only a question of time until the first truly cross-platform MMORPGs will appear in the market[1]. In addition, for instance, Gordon Walton argued in his speech in the Game Developers Conference 2004 that one of the requirements for the future MMORPGs is that they need to support mobility []. Currently, some MMORPGs have been ported to mobile phones, but in these

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[1] One example of this is that Nokia N-Gage has announced development of HinterWars, which is a cross-platform game that can be played both on mobile phone and PC. http://www.hinterwars.com/pressrelease.htm

games, mobile players and PC players do not yet share a common game world. Few MMORPGs have enabled accessing in-game chat or viewing in-game content with a mobile client or a web browser.

When mobile phones are used for enhancing MMORPGs that are normally played on a PC, we need to consider what makes the mobile phone a good device for that. First of all, the mobile phone is a device that people use for communicating and socializing with each other. Second, the mobile phone is always with the player and it is always connected to the wireless network. Lastly, the real-life context, for instance location, of a mobile player can be used for creating interesting gameplay.

There are also several challenges [], of which latency and problems with inputting and outputting text or graphical information are most important, when considering game design of mobile online games. In addition, current operator pricing for data transfer over mobile networks is a problem, but hopefully more operators will adopt flat-fee rates in the near future, which will benefit both the gamers and the operators due to increased data traffic.

Our categorization is based on how the player can interact with or influence the virtual game world and other players by using his mobile phone. The categories that we identified in this study are: *Communication access, Event notifications, Asynchronous gameplay, Synchronous player-to-player interaction, Passive participation,* and *Parallel reality*. These categories are explained in the following sections.

RESEARCH METHOD

We started this qualitative research with an initial set of categories for pervasive MMORPG features. We organized six focus groups during February and March 2005 in order to evaluate our categories with players and developers. Our purpose was also to evolve the structure further during this process.

Three of the player focus groups conducted as face-to-face meetings in Finland, one of them in a MMORPG, and one in a virtual chat room. Altogether 20 players participated in the player focus groups and their ages ranged from 17 years to 40 years. Approximately 13% of the participants were female.

The online focus groups proved to be a good choice for this research and it was much easier to find participants and organize the focus group online than in real life. The downside of using online focus groups was that it was impossible to evaluate reactions of silent participants. Also, in the in-game focus group, it was not possible to ask the gender of every player, because some of the players were role-players who did not want to give any personal real-life information. Even if it had been asked, verifying the information could have been difficult.

The developer focus group was held online using a voice-over-IP conferencing tool. Two developers, who could not participate, were interviewed shortly via e-mail in order to support the findings. The conferencing tool supported voice chat rather well: the slides were shown via the tool and the participants actively used emoticons like smiling, clapping hands, or voting when not speaking.

FEATURES FOR PERVASIVE MMORPGS

Communication Access

Enabling access to communication channels of MMORPGs is rather easy to implement since it does not necessarily require any changes to game mechanics or story. For instance, players of Anarchy Online and Dark Age of Camelot can already access in-game chat when they are not logged into the game with the PC game client.

In some cases, using voice rather than text on a mobile platform makes sense since the mobile phone is not ideal for typing or reading text. Also, if the player is on move and needs his eyes for viewing his real-life environment, using voice is a good option. In 2.5G mobile networks, transferring the game and voice data simultaneously can be problematic, but not impossible. For instance, Pathway to Glory mobile game allows the players to record and send each other sound clips. 3G networks will make implementing voice communication more feasible.

Most of the data from both the player and developer focus groups suggests that enabling mobile communication access can enhance the overall gameplay experience. There were reactions such as "I would definitely use it", "it would increase commitment", and "can organize events". However, using voice for communication did not always receive positive feedback, even if it is commonly used, especially in a Player versus Player (PvP) setting. Some of the players felt that using voice would not be feasible if the player wants to role-play because voice-chat can break the immersion.

Event notifications

Event notifications allow the game or other players to contact the player anywhere and anytime. However, like our research data suggests, some kind of control for this feature is definitely needed. Examples of event notifications could be that the game sends an alert to the player if there is a certain kind of change in the game state or other players or non-player characters can contact the player when he is not playing the game.

Some players felt this was intrusive. Both players and developers required that the players should be able to control these features. Some of the players felt that even being able to control these features would not necessarily be enough because the peer pressure to be available all the time may be too high. The developer focus group was also worried about players who cannot stop playing and the developers felt that it is the developer's responsibility to protect the player from undesired side effects that can possibly result from this kind of gameplay.

Like *Communication access*, *Event notifications* do not necessarily require many changes in the game design. However, the feature needs to be well integrated in the game, otherwise the players may feel stressed when getting the information about an event but not being able to react.

However, MMORPGs are to many players more like a life style than just a game – average players are reported to play these games 10-40 hours per week []. For hardcore players increased pervasiveness can be beneficial. If this is so, it is an important topic for further research, and it can be better studied with a prototype or product that demonstrates *Event notifications*. The idea of a game being part of one's everyday life can be quite new to many people and the negative reactions can also be partly due to resistance to change.

Asynchronous gameplay

Latency in 2.5G mobile networks is rather high and irregular []. Also, inputting and displaying information with a small screen and small keypad can be rather slow and cumbersome when compared to a big PC or console display and a keyboard. 3G networks help a little with the latency[2] but do not remove the usability issues of the small devices. Implementing the same kind of gameplay for the mobile phone as for a PC or console does not often make sense for a typical MMORPG. However, many of the activities that the players perform in these games do not really require rapid interaction.

Setting-up or managing some of the game features can be done asynchronously. Examples of these kinds of tasks include crafting, adding new items for sale in one's in-game shop, or offline character development. However, the features need to be implemented in a way that the client application is never trusted [] in order to prevent cheating. Also, careful consideration on how the features affect game balance and play is needed.

Most of the players were interested in a mobile auction feature that allows the players to trade items and browse in-game markets with their mobile phone. A few of the players cited this as the most interesting of all the suggested features. On the other hand, some of the players and developers were worried that implementing some of the proposed asynchronous features would take away from the actual gameplay. For instance, when discussing about mobile trading, one player argued: "you will lose out on being able to meet people at your stores, which is something not planned, but welcomed".

Generally, players often reacted positively to mobile access of features that they consider as boring duty in a game with little or no player-to-player interaction. Many of them felt that it would allow them to save time for the actual gameplay, or provide easier access. Players of Eve Online[3] were very interested in mobile skill development access. However, the feedback was quite varied when features that are more clearly part of the actual gameplay, such as crafting, were suggested.

Synchronous player-to-player interaction

The problem with synchronous player-to-player interaction in the MMORPG world is that players who use different platforms for playing the same game need to be equal. This means that the players should not have big advantage or disadvantage only because of the platform. There are ways to reduce the unfairness between different platforms.

If the mobile players' characters are assisted with specific Artificial Intelligence (AI), the effects of inequality can be reduced. This is called indirect control and it means that the player controls agents that can act autonomously when no orders are given []. A good example of this kind of gameplay is The Sims or many real-time strategy games.

Mixing players using different platforms becomes feasible in MMORPGs where critical parts of the gameplay are tick or turn-based. A good example of this kind of game is Toontown, where

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[2] The round-trip time in the current WCDMA networks is about 200 milliseconds and it is rather stable, which is enough for many slower-paced real-time games.

[3] Eve Online supports offline skill development.

the game is otherwise real-time, but the fighting is implemented in turn-based mode and is designed to work smoothly with up to two seconds of latency [], which would also be feasible in the mobile platform. Actions that are not critical, such as traveling safe long-distance routes, could be also handled well with a mobile phone.

When discussing AI assisted characters, some of the players and developers were worried if it would automate the gameplay too much and turn the game into a world of mute and mindless bots[4]. This is something that needs to be carefully considered in game design as well as the balancing issues. Things like using AI for traveling safe long-distance trading routes in games such as Eve Online received positive feedback from some of the players and a few of the players were very enthusiastic about using AI for some parts of the gameplay.

Passive participation
Passive participation means that the player does not need to actively play the game, but can instead observe the game world or influence the game by voting or rating with his mobile device. Allowing observation can also be used for promoting the game if people who are not yet players of the game are allowed to observe or vote.

About half of the player participants were very interested in the observation feature, especially observing one's friends or good players. On the other hand, the developer focus group participants felt that gaming should always be an interactive activity and this is a less important feature. Some of the player participants had similar arguments, such as "when I see it, I want to try it out immediately myself".

Voting and rating received more positive feedback from both the players and developers. However, it was frequently mentioned that the players should not be able to affect the gameplay too much by voting, unless the game would be specifically designed around the feature.

Parallel reality
In a parallel reality, the game takes place in two different worlds: the real world and the virtual world. Real-life events can have an effect on the events in the virtual game world and vice versa. A good example of this is location-based games. Also, other things in the real world, such as the weather or the player's heart rate, can have an effect on the game.

The players were not too eager to combine physical gameplay and MMORPG gameplay with a stationary computer. Especially the older players were not so interested in this feature and many considered the virtual world as a place where one can forget about the reality. The players in the focus group with younger players (17-23 year old) considered this as a futuristic, but good idea. In parallel-reality games, the players should be motivated to take action in real life but not feel forced to do so.

The same phenomena was noticed when the players were asked if they would like to meet people they do not know in real life, or even not in the game, in the real world. The younger players gave more positive comments such as "it would be nice if people who I don't know would come to talk about the game". The older players were more often concerned about stalking and were cautious about meeting people they do not know in real life, others than those who they know

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[4] Automated player characters.

already well in virtual world, such as guild mates.

This may suggest that younger people would be more eager to play parallel-reality games. However, our qualitative study cannot prove or disprove that. The phenomenon may be the same as with young people adapting new technology faster than older people [].

CONCLUSIONS

We identified six categories of pervasive features for current MMORPGs and supported our findings with six focus groups with players and developers. The research will continue by testing some of these features in prototypes created in the Integrated project on Pervasive Gaming (IPerG).

The strengths of the mobile phone that we identified in the Introduction are used in all of the categories. Communication and socialization features of the mobile phone are used mostly in our *Communication access* category. Our second point, that mobile phone is almost always with the user and a connected device, is an important issue in the *Event notifications* category and also in all of the other categories. Context sensitivity of the mobile phone is utilized in the *Parallel reality* category.

Our player focus groups suggested that the MMORPG players are ready to use features that they can control, especially if they do not have a major effect on the actual game and can be turned off when needed. The most popular features seemed to be allowing the players to access communication channels and the trading system of the game.

Some of the players were concerned about features that can become intrusive, particularly *Event notifications*. Both players and developers worried about what would happen to the last remains of real life of the hard-core MMORPG players if the game can be accessed anywhere and any time.

In the case of *Event notifications* and *Parallel reality* categories, players, especially the older ones, were frequently worried about their privacy. Combining parallel-reality features with a typical MMORPG received very negative feedback from most of the players. However, some of them felt that if the game was specifically designed around those features, it could work, but it was often difficult to imagine what kind of game that would be. Young players were more positive about the parallel-reality features than the older ones. *Event notifications* and *Parallel reality* are the most interesting areas of future research, because the feedback on these features was quite varied.

The results of the player focus groups could be skewed by the fact that all of the participants were particularly experienced MMORPG players. In this paper we studied how pervasive features can be combined with current MMORPGs, but eventually pervasive MMORPGs can draw a different kind of player base who are more interested in physical gameplay. Also, in our opinion, the focus groups provide more information on what issues the designers need to focus on, than serving as marketing research.

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