# The Importance of Being a Player

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*Based on two studies of gamers, this article argues that an important part of the gaming experience is to allow people to take on the social role of a player. The two studies looked at two radically different user groups: that of hard-core board gamers and that of disabled children playing computer games. Both groups stressed that games provided a way to change how others perceive them, letting them have social interaction on an equal level within the game context. Results show that the participants created new social networks by taking on the social role of a player, setting aside their everyday social role. Based on this, the article presents design implications from the observations that encapsulate how games can be designed to support people to take on the role of a player which is separated from their normal social roles.*

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Playing games together has always been a social activity (Huizinga 1971/1956; Salen & Zimmerman 2003). However, computer-based games are currently bringing new aspects to this form of social interaction, especially through the use of pervasive computing (Dordick 1998) or ubiquitous computing (Weiser & Brown 1996), the purpose of which is to increase the possible play spaces, thereby increasing the chance that non-game related interactions may occur. These new types of games are called "pervasive games" (Montola 2005), and blur the spatial, temporal, and social boundaries in which games are typically played. A project explor-

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ing this issue, the Integrated Project on Pervasive Games (IPerG) (Waern *et al.* 2004), aimed to see how pervasive games need to be designed in order to be socially adaptable, i.e. how they should be able to function in different social environments. This resulted in a set of design guidelines (Björk *et al.* 2004) for socially adaptable pervasive games based on a theoretical grounding (see Peitz, Björk & Jäppinen 2006 for an example of the games). The initial objective of the study reported in this article was therefore to develop the guidelines further, by studying the gaming habits of two user groups. It is also important to notice that the study is centered on games, game design, and the gaming habits of the user group; it is *not* centered on the user groups themselves.

## Methodology

Since no pervasive game communities yet exist, two alternative groups were selected for the studies. The feasibility of using ersatz groups was based on Salen and Zimmerman who state that two players do not have to speak the same native language, "because they both know the 'language' of the game" (2003, 462). In other words, players can use a game as a medium for social interaction and communicate through game play, letting the formal rule system set the boundaries for how players can interact with (and in some cases speak with) each other. The work was planned from the assumption that if groups with relevant characteristics were used, triangulation could be applied to understand the intended user group. The first group consisted of hardcore board gamers, deemed relevant since board games had been identified as being inherently socially adaptable, and because of the focus group's overall expertise in games. Understanding the nature of social adaptability for one type of games was seen as a good starting point for understanding it generally. In addition, board games were seen as a category where computational powers could be introduced to see if they disrupted the social adaptability inherent in board games. For this reason, understanding the views of board gamers while playing board games became as important as looking at board games themselves. The second group was cognitively and/or motorically disabled students in upper secondary school that visited a computer game club where specially adapted interfaces were available to them. The students at the club were deemed interesting to visit since they

played commercial computer games and since their disabilities were thought to pose challenges to social interaction with other players. Understanding how this group overcame these issues was seen as a potential way to support users in general to overcome various challenges to social interaction due to the varied and shifting context in pervasive games. Of the two studies conducted, we emphasize the one with the hardcore board gamers, since this is a more in-depth study whereas the one of the disabled students was conducted on a single occasion.

The understanding of the user groups and their activities was founded on Goffman's dramaturgical perspective on social life (Goffman 1956, Goffman 1972/1961), where interaction is governed by the fact that participants take different *positions*, i.e. roles, in their encounters with each other. Depending on the nature of the activity, the setting, and the participant's personal attributes (gender, ethnicity, clothing etc.), the individual acquires a particular role in the activity. In some activities, the personal attributes of the participant plays a more central role than in other activities. Goffman points out that playing games is an activity where the roles we have in other contexts often are disregarded. Games can become social microsystems where each participant's role is that *of a player*. When we engage ourselves in games we thus tend to set aside who we are in other situations.

### *Studying Hardcore Board Gamers*

The approach to this group was similar to that of focus groups with the difference that as a part of the meetings, they also played games and, as has been stated earlier, they were not seen as necessarily being representatives of the end users. For the duration of three weeks, two workshops were conducted with the hardcore board gamers. In between the workshops, each participant was asked to separately document his or her everyday life. During the first workshop, the focus group was observed and filmed while playing games. They were also asked to fill out a questionnaire, in the format of a *Game Session Booklet* (figure 1) during gameplay. The answers were later analyzed and served as a foundation for the focus group interview that was conducted during workshop 2.

The tasks of documenting their everyday life were done through the use of a cultural probe (Gaver, Dunne & Pacenti 1999). This method

focuses on collecting information about a group's attitudes, beliefs and desires in life and has an artist-designer approach, only partly driven by a scientific problem statement. Our cultural probe focused on investigating the hardcore board gamers' spare time and game habits in a setting outside our lab, to which it would otherwise be hard for us to gain access. Using a probe is, as put by Gaver, Dunne & Pacenti (1999, 24f.), not a resource for collecting existing user needs nor establish user requirements. Probes are rather designed to provoke responses from a user and to give insights from a specific user community, thus providing designers with new and unexpected ideas. The probe, henceforth referred to as the Photo Journal, consisted of a small booklet with questions and assignments to be conducted, a camera for documentation purposes and a stamped envelope so the participants could mail it back to the test leader. Examples of the tasks were:

- Take a series of six photos that show what an ordinary day in your life looks like. Comment the pictures.
- Take a photo of what you consider to be an important place where you spend your spare time. Describe a feeling that you associate with that place.
- Take a photo (or ask someone else to do it for you) that illustrates what you do when that feeling occurs.

By choosing to work with cultural probes, questionnaires, observations, and focus group interviews, a large amount of data was gathered and later analyzed using Goffman's perspective of micro-sociology.

## Hardcore Board Gamers

In order to have selection criteria for the group of hardcore board gamers, it was decided that participants had to have a self-professed background of playing different kinds of games several times a week, competing in game contests as well as constructing their own board games. Based on these criteria, a group consisting of five males and one female between the ages of 25 and 33 participated in the first game workshop, and four males and one female in the second game workshop. It should be noted that although the participants were recruited based on playing

board games, they were experienced in all types of games. The group was also told that it was ok to leave the workshops at any point in time and that all material produced would be used for research purposes.

### *Workshop 1 – The First Meeting*

Upon arrival, the participants were showed to a room with several tables. On one table in the middle of the room different kinds of board games had been placed, e.g. *Karibik* (aka Caribbean from Rio Grande Games 2004), *El Grande* (Rio Grande Games 1995), *Kingdoms* (Fantasy Flight Games 1994), *Settlers of Catan* (Mayfair Games 1995) and *Thud* (The Cunning Artificer 2002). The hardcore board gamers could then decide for themselves which ones to play. The group divided itself into two teams with three players in each. The first team chose the game *Karibik* and the second team chose *El Grande*. During the game session, the test leaders were present in the same room playing another game. This was in order to observe participants in a less intrusive way and to be able to notice when participants were truly immersed in the game. The latter point was especially important since this was the time to intentionally interrupt the game session and ask participants to answer questions in the *Game Session Booklet* (figure 1).

The Game Session Booklet is a booklet with questions divided into three sections. The participants were not allowed to go through the booklet at first, but were prompted by the test leader when to answer the questions before, during and after the game session. The booklet's first part consisted of general questions that investigate the participants' gaming habits, e.g. their favorite game, when they play, if they think it is important to win, if there is something you are not allowed to do while playing a game etc. The second part contained questions to be asked during the game session. By halting the game session when the participants seemed to be immersed in the game, the previously mentioned guidelines for social adaptability (Björk *et al.* 2004) could be tested. The participants were also asked to describe how they felt at this moment, if they would have liked to change anything in the game leading up to this break and also if it is alright for a friend to join the game session at this point. The last question was designed to see if the players thought the board game had negotiable openings (meaning the ability to allow

different entering or exit points) and if not, what social implications this might have within the player group. After the game session, the participants answered the questions in the third booklet section which deals with the participant's view and experience of the game session itself.


*Figure 1. The Game Session Booklet distributed to hardcore board gamers.*

Answers from the Game Session Booklet reflect in some way the activity surrounding the game event and especially the feelings and interaction inside the group. In addition to what went through their mind during gameplay however, the answers also to a high degree reflect the lifestyle and the importance of gaming in the hardcore board gamers' life. One observation was the importance to treat all players of a game equally regardless of who they were outside the game situation:

> [It is not ok to] give the victory to one's girlfriend while playing a board game.
>
> *Man, 31*

Overall, their answers revealed that they generally play in a lot of different contexts but mainly at home for socializing reasons, and they stres-

sed the importance of interaction among the players as well as with the game. They differentiate between playing with friends for socializing reasons and more formally organized playing, e.g. at conventions or tournaments. As two different participants expressed it:

> It's easier to establish a social contact while you are involved in an activity – gaming. Through playing games I get to know people, challenge myself and my brain. This makes me feel good as I usually win.
>
> *Woman, 24*

> Life is big and hard to measure; games are simple and give quick gratification. For role-playing games I also enjoy the social exchange, to meet friends.
>
> *Man, 31*

In both these excerpts, the informants relate the game context to the "wider world" and stress the important aspect of a game activity as being local micro-systems. The Game Session Booklet did not specifically ask what the players felt when being interrupted in the middle of their gaming session. After the game session however, when asked directly if anything was considered distracting, it became clear that two out of six participants considered the break prompted by the test leader to be disturbing. Two other participants out of the six also considered people leaving the table to get food to be disturbing, although it remains unclear whether it influenced the gameplay.

> That players went away to get food/coffee. It took away some of the focus from the game, reality became noticeable.
>
> *Man, 31*

Only two participants thought it was alright for a new person to join during the game session, mostly for social reasons and only after having valued the risk of that person to change the ending of the game as being slim. Everyone expressed concerns that if the game had already started, it might be better to start over, or:

- Let the new player team up with someone
- Let the new player take over for another player

The statements above reflect the group's feeling of the importance of fairness in gameplay. It also confirms that they value social interaction during gameplay highly, as previously stated by them, since they came up with alternatives how to involve a new player in the game session without violating their views on fairness.

Between the first and second workshop, the hardcore board gamers were asked to document their everyday life using the cultural probe previously referred to as the *Photo Journal*. The Photo Journals confirmed the central role of gaming as an activity and lifestyle for the hardcore board gamers, as they had also stated in section 1 of the Game Session Booklet. When asked to document an ordinary day in their life by taking six photos and comment on them, the main part of the pictures consisted of places associated with gaming, board games, game sessions with friends and their own work of making their own games. It is important to notice that only 2 out of 10 tasks in the Photo Journal were explicitly game oriented ("Take a photo of your favorite game" and "Take a picture that describes what you think is the best thing about your game").

### *Workshop 2 – The Second Meeting*

The second meeting with the board game group aimed to deepen the understanding based on questions arising from the first meeting and the Photo Journal. In addition, the group was introduced to the concept of using computational technology to enhance board games, so-called augmented board games (Peitz, Eriksson & Björk 2005), a sub-group of pervasive games.

As previously mentioned, the starting point for the second workshop was a focus group interview based on the results of the first workshop. The interview was centered on the following questions:

1. How would you define social interaction?
2. You seem to differentiate between tournament and social gaming when it comes to how important it is to win and what it is ok to do to win.
    a. What is one allowed to do in these two different cases?
    b. Tell us about an episode and how it worked out.

3. Is the appreciation of game mechanics a central part of the gaming experience?
4. How important is the aesthetics of a game?
5. What are your thoughts on augmented board games?

The most significant result was how the participants addressed how they defined "social interaction" and how different types of games could support social interaction and thereby their role as player. Besides defining social interaction while gaming as chatting, meeting friends and having a good time, the participants also noted that social interaction could happen both over and through game mechanics. Player actions led to social interaction when games contained game mechanics based on interaction between players. These kinds of elements could fulfill their needs to interact with people in general. It was also apparent that games differed in how well they supported social interaction. The board game *Settlers of Catan* (Mayfair Games 1995) was mentioned as a game that supported a high level of interaction, since negotiations are part of the game.

> Player interaction leads to social interaction. When you have to negotiate in *Settlers* [*of Catan*] and talk about that, you also fulfill your need to meet other people.
>
> *Man, 33*

As a contrast, the participants thought that chess requires a high level of concentration, and people who play it tend to ask onlookers to be quiet. When asked if they could think of some game rules that might support social interaction, they mentioned *Diplomacy* (Avalon Hill 1959), a game based heavily on informal alliances. The woman in the group objected somewhat to games based on conversational skills, since it then became socially pressing to interact, and if the players do not know each other very well it might feel awkward.

> If you are somewhat insecure socially, and foremost if you are playing with people you don't know that well, then I feel it can be more secure to have game rules and other things more defined. …and then you don't have to feel false or anything.
>
> *Woman, 24*

Her statement reflects Goffman's theory in the sense that she finds it uneasy to play games based on conversational skills with people she does not know that well, since she then finds herself close to her social role in everyday life. A game with stricter rules and her ability to use them to her advantage made her take on a more impersonal role that she regarded as something positive – the role as a player. At this point the group was explicitly asked whether it mattered who you were as a person outside the game. The group responded that it did. The woman told us she was often met by surprise when playing in tournaments of the collectable card game *Magic: the Gathering* (Wizards of the Coast 1993), since female players are rare in these events. The example of small children being judged as more ignorant while playing games in real life simply because they are children was mentioned, and then put into comparison with an online game situation. Since players are anonymous in online games, adults take advice from and interact with children on other terms than in face-to-face situations. The group clearly thought that who you are affects the way you are treated by other players during gameplay – unless you are anonymous in some way. Although the workshop participants, being hardcore board gamers, saw a value in being underestimated by other players while competing in a tournament, they did not consider this advantage to compensate for the social disadvantage.

### *Conclusions from the Two Workshops with Hardcore Board Gamers*

For the hardcore board gamers, gaming was seen as a way to form and maintain a social network. The game in itself becomes a way to meet new friends and social interaction can occur purely through game mechanics. The gamers noted that some games support social interaction better than others, typically through requiring negotiation or having player actions that affect other players. The gamers also clearly stated that they thought who one was outside the game affected how one was judged as a player. This was mainly seen as a problem. Being anonymous was however seen as a remedy, achievable by playing online or with strangers, making the interaction more impersonal through formalizing the interactions between the players.

## Visiting the Game Dungeon

The Game Dungeon project, <http://www.spelhalan.com>, was started by Furuboda Competence Centre in 2002 within the project Interagera (*Interagera slutrapport* 2005). A Game Dungeon is a club providing digital games, often with adapted interfaces, so that children with disabilities can meet and play computer games with each other and in some cases with non-disabled children. The purpose of the Interagera project was to find out how commercial computer games could be played by people with different kinds of disability, both for rehabilitation purposes, as a school activity, and for pure entertainment. For a person with a disability it is difficult to play an ordinary computer game, and this three-year-long project has investigated different aspects of how to change this. The project has been run on different locations, all with slightly different foci. In Furuboda and Visby the focus has been on adapting different controls for input, in Bollnäs how computer gaming can be used as a means to make students more computer literate, and at Häggvik upper secondary school on collaboration. The Game Dungeon at Häggvik focuses on collaboration, since they consider the world of gaming a youth culture that every child should have the right to access. Häggvik upper secondary school is attended by both cognitively and/or physically disabled students, but mainly the former.

The purpose of visiting the Game Dungeon at Häggvik was to interview the project leader and to observe game activities at the site. The primary goal for the visit was to learn about their experiences regarding game mechanics and strategies: which ones supported a higher degree of inclusion? Semi-structured interviews were performed with the project leader as well as with the whole group of employees. The students themselves were not interviewed, since prior clearance from their parents had not been acquired.

The project leader at the local Game Dungeon explained that children at a younger age meet at playgrounds, where they form and maintain relationships through the equipment. When growing older, non-disabled teenagers do not need anything particular to gather around during school breaks; they have no problems interacting socially. For cognitively disabled teenagers however, social interaction is not easy. They need a common focus, a thing or a gadget in order to maintain social interaction

with their peers and which does not only act as a social ice-breaker but allows them to interact on a socially equal basis.

To avoid isolating the disabled students as a group of their own, the Game Dungeon is open to, and is visited by, both disabled and non-disabled students. The general experience of this practice is that, overcoming some initial hesitations, students gradually started gaming together, negotiating their roles as players on equal terms within the game context. Games provided this functionality, in some cases through built-in support such as setting different difficulty levels or auto-balancing, or through letting the players in advance negotiate the playing conditions. This allowed the students with disabilities to interact with other non-disabled students without having the disabilities interfere negatively, since those consequences had been negotiated away before the actual playing began. By taking on the role of a player, they were able to form relationships and social networks based on more equal social roles, since the effects of their disabilities were marginalized to the point where the participants took no notice of them. In short, games are one of their few means for forming a social network, equivalent to the physical playgrounds used by all children. Although these different measures considerably equalized the students, they did not succeed at all times, since events external to the game itself disrupted the gameplay and thereby potentially re-established the normal social roles.

As to whether the staff at the Game Dungeon had discovered games that work better and have a higher degree of inclusion for the students at Häggvik high school, the project leader mentioned *The Jungle Book* (Virgin Interactive 1994), since it offers the possibility to adjust the level of difficulty to different players. This meant that a student with a cognitive disability could play on equal terms as a non-disabled student. The game *The Lord of the Rings* (Stormfront Studios 2004) was also mentioned as a good game, since it is based on collaboration in the sense that the characters have to move together as a team. In this game, adjacency to the other players decides whether you succeed or not. A central feature that the staff of the Game Dungeon wanted was a built-in auto handicap system to secure the uncertainty of the outcome of the game. They also wanted more games built on collaboration. Today the collaboration between students in the Game Dungeon is centered upon sharing a charac-

ter through the use of divergent controls. For instance, one student might steer a car and the other student might control the gas, when involved in a racing game.

To sum up, the most striking observation at the Game Dungeon was the fact that the virtual game space became an arena for interaction, where in some instances the disabilities became close to invisible. By negotiating away negative consequences prior to gaming, non-disabled students and disabled students were allowed to take on the role of a player. Based on more equal social roles, they were able to form relationships and social networks, since the effects of their disabilities were marginalized to the point where the participants took no notice of them.

## Design Implications

The data gathered from the two user groups were later analyzed using Goffman's (1956) perspective of micro-sociology, and compared with the already existing design guidelines for socially adaptable pervasive games (Björk *et al.* 2004). The analysis provided initial validations of the guidelines for social adaptability, but also identified a set of additional guidelines as a result of the study which are described and discussed under the headlines below.

Both the observations at the Game Dungeon and of hardcore board gamers indicated that the fact that they placed the people playing the game in another social context was perceived as an advantage of games. This allowed the people to replace whatever role they perceived they had in their everyday life with that of a player, making it possible to mitigate or strengthen aspects of their personality or behavior. This is in line with Goffman's claims, and has also been suggested in other computer-mediated contexts (see e.g. Turkle 1997). The difference from earlier research is that people emphasized the importance of defining the social role of a player over anonymity and common formalized behavior.

Further, the core of the player role is given by the game and players do not have to invest in the creation of that role, more than perhaps in its development and in the maintenance of the perceived game world. Although overlaps between the role of a player and other roles most likely always exist, both groups thought it was positive to actively differentiate the roles. We had earlier hypothesized that this form of actor detachment

was important for socially adaptable games, but the observations show that this is an important issue in itself for all types of games.

The observations provided several specific results of how pervasive games can support a player role based on anonymity and common formalized behavior. Below we discuss each of these results to suggest solutions for game design to provide such player roles without requiring negotiation. It should be noted that in many cases not all of these solutions need to be present in a game design in order for people to be able to take on player roles, nor may they be desirable to enforce in games where people may want to be able to reveal the person behind the player. Given that pervasive games typically mix mediated and non-mediated interaction between players, the result below provides potential design implications based both on traditional (non-mediated) games and computer games.

### *Possibility of Anonymity*

Computer games can be argued to better support equalization of a player role based on anonymity or common formalized behavior, since computer mediation can make it more difficult to place the person playing the game by e.g. gender, age, ethnicity, or disability. However, since board games are recognized as being good at allowing different kinds of people to socially interact with each other, as indicated by the hardcore board gamers, this shows that it is not only a question of mediation. The social contract agreed upon to play the game can dictate that only people's behavior and abilities related to the gameplay should affect the social interaction taking place during gameplay. In the case of computer games, this leads to the conclusion that the technology may be used to maintain the mediation between players. Further, it can help players locate each other to initiate face-to-face interaction, something the results of the cultural probes argue support group forming and allow adaptability of gameplay by players. Since player preferences concerning this can differ between individuals as well as depend on the specific game and other people participating, a recommendation can be to support functionality for people to initiate face-to-face interaction but make it possible to have full gameplay without doing so. Specifically, communication channels that can uncover personal traits should have alternatives.

An example of a potentially problematic channel is Voice-over-Internet Protocols or ordinary mobile phones (a pervasive technology in itself, and therefore a suitable candidate for pervasive games), which can reveal non-native speakers, ethnic groups, and certain disabilities. Possible ways of anonymising include the use of predetermined messages (as used in e.g. *Return to Castle Wolfenstein: Enemy Territory* (Splash Damage 2003) and *Battlefield 2* (Digital Illusions 2005)) or automated text responses (popularized in player clients for MUDs).

### *Social Networks through Formalized Gameplay*

The cultural probes, workshops, and the visit at the Game Dungeon all stressed the ability of games to function as social networks. The games were specifically used to do this in cases where ordinary means were not possible. These social networks may be temporary, lasting only for the duration of a game instance, or they may be networks that exist outside of the gameplay activity but are reinforced by gatherings to play the games.

It may seem as a paradox to combine the creation of social networks with the possibility of anonymity or creating alternative personalities. However, gameplay itself can provide the basis for localized social networks through common formalized behavior. Examples of such gameplay include *social dilemmas*, *betting*, and *temporary alliances* and have been described as gameplay design patterns (Björk & Holopainen 2004). These game mechanics require a certain level of social interaction to occur in the game for the game to proceed without requiring, or hindering, other types of social interaction. Other possibilities exist through formalizing membership in social groupings, as in e.g. Facebook. Such applications are typically asynchronous, can be accessed through mobile devices, easily piggy-backed on by plug-ins, and quite easily made into game-like activities, making them strong potential candidates for pervasive games.

The creation of social networks can however make players obligated to participate in the game in order not to lose their network. Combining this with the requirement of interruptability can require specific design support, e.g. supporting players to take shifts performing functional roles within the game, or through the use of programs that can act as tempo-

rary replacements for short interruptions in gameplay for a player when performing cooperative activities within the game.

### *Public Standardized Interface Protocols*

Although it is a common software engineering practice to use client-server solutions for networked games, i.e. creating games that allow several different clients to interface to a common server, the visit to the Game Dungeon offered a specific perspective on this concept. The Game Dungeon makes use of a specific game controller, the *joybox*, which functions as a switchbox to which a multitude of sensors can be connected. This allows any commercial game, usually controlled by a standard game controller, to use specialized sensors, e.g. those developed for people with motoric disabilities. This is the primary solution that allows the children and teens at the Game Dungeon to be indistinguishable from other players in online games.

By making the interface specification publicly available, game designs can allow users or third party developers to personalize how players access the game. This opens up a new possibility of supporting the adaptability of gameplay. Further, it provides the information necessary to create programs that can act as temporary replacements, as discussed in the section above. Public standardized interface protocols allow a variety of devices to connect to the same game instance, and allow for new interfaces to be added after the launch of a game. This is an advantage to pervasive games, since a collection of interface devices can be supported and tailored to different user needs and contexts.

It should be noted that it is not the client-server interface in a typical computer game that is discussed here, but rather the interface perceivable to the user. Opening up the former can lead to the development of programs to cheat, similar to the functionality of *aimbots*, computer programs that help players aim within games, and *wallhacks*, modifications to clients that enable players to see through walls in First Person Shooter games. The latter can also open up situations that can be considered cheating, e.g. programs that can play chess, but these forms of cheating will in most cases be possible without technology support, through the help of other people.

### *Normalizing Player Difficulties*

Not being able to perform within certain ranges regarding gameplay can hinder people from successfully assuming a player role, even though a game may provide such roles based on anonymity or common formalized behavior. This problem of performance (either too bad or too good) can be addressed in two ways; either changing the difficulty individually so that the relative difficulty is the same for all players, or by providing aids within the game context that give players roughly the same chances. The Game Dungeon project leader mentioned the *Jungle Book* game as a good example due to the first of these two reasons. Implementing these handicap systems in computer games is ordinarily quite trivial if performed during the game development process, as it would consist of providing player access to further game parameters in the user interfaces, when the game is played on a player-per-player basis. The second type of solution can be implemented in analogy with the aimbots and wallhacks mentioned above. Another way to aid a player is to let other people provide support, either by suggestions for actions or by actually performing those actions. For pervasive games, several ways of normalizing player difficulties not typically seen in other games are possible. Firstly, players can be handicapped by having to play at difficult locations (or simply having to take more demanding routes to specific game locations), having to play at slightly less convenient times, or having to play in social contexts where the gameplay is more problematic. Secondly, the input from sensors can easily be degraded to provide handicapped players with less reliable information from the game.

These solutions may seem questionable, since they can be seen as ways of cheating. However, many games already include support for setting individual handicaps, and these are not seen as problematic as long as all players are aware of each others' settings. For handicap systems and aids (such as aimbots and wallhacks) to be usable in online versions with anonymous players, they can be combined with ranking systems so that one's public rank is a combination of gameplay performance, handicap, and aids. This provides the players with the possibility to meet other players with the same performance without any regard to what handicap or player aid they are using. People who regard the handicap or player aids as providing unfair advantages can choose to avoid playing with

players using them, or see it as an additional challenge when the "normal" competition is not enough. At the end of the day, this is of course a matter of forming a social contract between the players on what is considered fair gamesmanship. An example of this occurrence was the negotiation between disabled and non-disabled students at the Game Dungeon during the game setup phase.

Auto-balancing in games is an additional possibility that can be applied both to setting the difficulty and providing player aid. Done by the game system during gameplay, this type of interference with player performance is automatically objective, and can be anonymous while still being seen as fair. The main problem with this solution is that it is restricted to certain kinds of gameplay (due to AI challenges or required social interactions), and the solution is currently most widespread within racing games.

### *Questioning the One Person – One Player Mapping*

The possibility of allowing one person to help another person play a game was suggested as a solution in the previous section to allow all players to take on the player role. Although this may be seen as cheating, another way of viewing it is to see both people as representing one player. As long as a person cannot determine if actions in a game are performed by one or more people, there is no reason for that person to consider how many people are actually performing those actions. The actions will therefore be perceived as coming from *one* player.

The joybox used at the Game Dungeon is a specific example of this, allowing several people to share the controls usually assigned to one person. Another example is how the hardcore board gamers allowed new people to join a game by playing together with another person, in effect letting two people take on the role of one player in the game. There is nothing inherent in computer games that would make it impossible to design them to allow several people to take on the role of a specific player. One requirement to enable this solution is to limit the possibility to affect and perceive the game state, which, using gameplay design pattern terminology (Björk *et al.* 2004), can be described as several people sharing one *focus loci*. Another requirement is to limit the effect of several people being able to consider what action to do next, something that can

be done by either making long-term effects difficult to predict, or by emphasizing quick reactions to game events.

An added value of allowing more than one person to take on a specific player role in a game is that these people need to coordinate their actions. This naturally provided a strong incentive for social interaction with other players beyond that which occurs in-game. Pervasive games can through technology mask the identities of players that are spatially or temporarily separated, to achieve a break between the one person – one player mapping. However, the social blurring of pervasive games, i.e. that you may not be sure of whom is playing the game or not, is another alternative which does not require the use of technology.

### *Allowing Flexible Entries and Exits without Disturbing Gameplay*

Many multiplayer games require that the players of a particular game instance start at the same time and play the instance through together. Since this requires players to negotiate and coordinate the start and the end of the game instance, this provides several potential cases where anonymity or common formalized behavior is difficult to maintain. Games that allow players to start and end their game sessions without disturbing gameplay of other players solve this problem, since they do not require the extra coordination effort with other players. Two main solutions for letting people join and leave games with minimal disruption of other people's gameplay is to either have short game instances, e.g. *Counter-Strike* (commercially packaged by Valve Software 1999) and *Battlefield 2*, or to provide game worlds whose existence and development is unrelated to any one player's use of it, so-called persistent worlds, e.g. *Lineage* (NCsoft 1998) or *World of Warcraft* (Blizzard Entertainment 2004). Another and less explored solution is to let the computer take over the control of a player's character when the player is not logged on, or to let several people share a player account (similar to the hardcore board gamers' solution to manage people who join a game late).

Both these solutions can, however, lead to a situation where an individual player's feeling of influence on the progression of the game is reduced to almost nothing. For instance, all hardcore gamers stressed the importance of meaningful interaction with other players as well as *with the game*. Almost all online games with persistent player accounts (e.g.

*World of Warcraft* or *Battlefield 2*) overcome this problem by making the sense of game progression player specific, i.e. the only persistent effects of player actions relate to their avatars, while the game world remains the same over time. On a tangent note, games may provide solutions to minimize the negative effects of not playing the game for a while. *World of Warcraft* gives a temporary bonus to gained experience points when a player has not been logged in for some time, and *Eve Online* (CCP Games 2003) gives characters the same experience points on skills regardless of whether the player is logged on or not. Pervasive games that support temporal separation between players can typically support this requirement rather easily, either by not enforcing the pattern *Turn-Based Games*, or by replacing players who leave with other players or with computer-controlled agents. An interesting variation of this is exhibited by *the ESP game* (von Ahn & Dabbish 2004), where players may be playing together with another player in real-time or against a recording of an earlier players' actions, but this is impossible to determine.

***Supporting Actor and Identity Detachment through Decontextability***

Another route to make the player role more important in the social context of a game is to lessen the importance of how the attributes and attitudes of the people playing the game affect gameplay. The idea is to minimize the reasons for other social roles, in this case manifested through the attribute and attitude displays, to challenge or suppress the player role.

Lessening the importance of attributes of the people playing the game equals lessening the skill requirements necessary to play the game. Since this reduces the performance aspect of a player's role during gameplay, it can be described as allowing an *actor detachment* from the player role. Games of chance (where knowledge of statistics does not help) such as *Lottery* or *Bingo* have this capability naturally. Similarly, games with no or little time limitations to perform actions reduce the needs for quick reflexes or handling stress well. This suggestion differs from the suggestion above to normalize player difficulties in that it is the gameplay itself that is changed, not a change in how to support or evaluate performance. They complement each other in the sense that where one is less feasible to use, the other is more feasible to use.

Lessening the importance of attitudes that can affect gameplay can be equaled to making thematic elements less prominent, since this gives less opportunity for people's attitudes to become apparent to others. Because attitudes are part of what defines identity, this solution can be named *identity detachment*, as it aims at detaching the identities of those playing the game from the social aspects of playing that game. Attitudes towards games themselves are more difficult to address, but given the fact that people playing a game have agreed upon a social contract of playing, this problem is not central during gameplay. Attitudes towards other players can most easily be solved through the possibility of anonymity discussed above, although that anonymity may arguably have to be enforced to support identity detachment. One hardcore board gamer said that it is unfair to give a victory to one's significant other. This is another way of stating that many games do not support or enforce people to detach their attitudes to the other people playing the game.

Since both these approaches suggest making a game less dependent on who is playing, they can be categorized as increasing the game's de-contextability, i.e. allowing the game to be less dependent on the context of each game instance.

## Final Remarks

In this article, we have reported on the importance of allowing people to take on the social role of a player while playing games. It should be noted that only gameplay for entertainment or leisure has been studied – not the professional playing of games. Further, we do not believe that equalizing social roles in games for gameplay reasons necessarily promote social equality in general. Many people probably do not play games because they feel that their inadequacies in the games negatively affect their social experience; the games give them artificial disadvantages which hinder the social roles they wish to have.

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