Perceptions of Player in Game Design Literature

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ABSTRACT
Few studies have examined the role of players in game design. The objective of this paper is to provide some clarity on the issue of player-centred design by analysing the notions on player in current game design literature. This research also discusses the potentials a multifaceted approach on players can offer for the design of games. The article starts by analysing different approaches on player from abstract ideal player to player profiles and players as co-creators. Later, the benefits of involving players in different phases of design process are examined. As a result the paper produces a grouping of different designer-player relationships that reflect the different design ideologies and traditions. This article contributes to the new field of game design research by producing clarity to some of the inarticulate and ambiguous issues related to the role of players in games and their design. At the same time, the analysis is relevant to the larger understanding of players as game cultural actors.

Author Keywords
Game design research, player research, game design literature, player-centred design

INTRODUCTION
It is not entirely uncommon to argue that all game design is player-centred. If we agree that game design is much about challenging the player's skill and creativity, game designer is deeply engaged in the battle of wits with her players [12]. If we agree that all design is in the end about having a conversation with the intended user it would be ridiculous if the design of games – systems that rely on player's active participation – would not have a player focus [10].

At the same time, there is a growing amount of evidence that professional game designers still in many occasions primarily rely on personal experience and intuitive sense of market demand. Further, games are often claimed to be designed primarily for game designers themselves. [9, 5, 12]. In the words of Ernest Adams: "In eight years of working for Electronic Arts, I never once saw a really thorough, properly-conducted market survey. Our understanding of our players was based on guesswork and hunches." [1] What all this highlights is a need for more rigorous and organized study of meanings and roles attached to players in game design.

This research poses the following question: how players are represented in professional game design? This is of concern since there is not very much information available on the topic. Academic studies focusing on this subject matter are rare and most of the industry studies are never made publicly available. One can still identify various ways to gather information on the role of players: examining the implied player of different games, by interviewing the designers, through participatory observations or via a detailed analysis of the design process. In this study I have, however, decided to examine the recent game design books written to teach the fundamentals of game design. These books form a multifaceted source of accumulated knowledge, are based on practical experience and therefore provide an interesting spectrum of tested design approaches. I suggest game design books can be more influential than we recognize at the first glance. They are not only read by critical game designers, but also used in teaching the fundamentals of game design to the upcoming generations of game industry professionals. Thus, the precise research question of this article is as follows: what are the different perceptions on player that can be found in recent game design literature?
The article should not, however, be read only as a literature review. The objective is also to discuss the potentials a multifaceted approach on players can offer. The lack of earlier meta-discussion on the topic necessitates that I nonetheless have to start with a mapping of the current literature. This analysis aims to 1) address the common claims shared by most of the game design books and 2) to expose the key differences between the current approaches. This article contributes to the new field of game design research by producing clarity to some of the inarticulate and ambiguous issues related to the role of players in games and their design. At the same time, I find the analysis highly relevant to the larger understanding of players as game cultural actors. It is clear that the designers' formulations of "imagined player" not only shape the design process but also have an influence on the freedom of action players have with the finalized product [17].

BRIEF INTRODUCTION TO PLAYER-CENTRED DESIGN
Game scholars have recently expressed a growing interest on player-centred design. Involving players more in the design of games is suggested to increase the diversity of

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games and inject a shot of originality to the development of commercial games [6].[1]

Often the approaches that emphasize the significance of players draw their inspiration from the tradition of user-centred design. A number of known user-centred design techniques, such as focus groups, usability testing and participatory design, can surely benefit the design of games. At the same time, the particularity of games poses new challenges. Digital games are used voluntarily, they are expected to challenge the player and her skills, and games are not entirely about the ease of use but more about the well-balanced difficulty. Therefore the user-centred methods need some tuning when applied to game design. [8, 11, 16]

TL Taylor argues strongly in favour of participatory design and commitment to in-depth user participation and sees the "serious inclusion of players" as the central future design challenge [17]. Not all writers, however, share this enthusiasm on participatory design which highlights the fact that there is no clear consensus of the definite status of player-centred design [15]. In any case, there is a growing number of research projects where players are involved from the early phases of game design process [6, 14, 18]. These experimental projects have an important contribution to the development of archive of appropriate player-centred methods.

It is too early to evaluate the impact these player-centred game design research experiments will have on large-scale commercial projects. There are, however, early hints that professional designers are starting to take the player issue seriously. An indicative example can be found from the writings of the noted game developers Ernest Adams and Andrew Rollings. While they no doubt discuss players in their game design book from 2003 there is no indication of a particular player focus. In a recent revised version of their work Adams and Rollings, instead, openly state that they "favor and approach called player-centric game design" [2].

GAME DESIGN LITERATURE

The ten game design books analysed in this article are as follows:

- Bartle, Richard A. (2003) *Designing Virtual Worlds* [BAR in the following]
- Bateman, Chris and Richard Boon (2006) *21st Century Game Design* [BAT]
- Björk, Staffan and Jussi Holopainen (2004) *Patterns in Game Design* [BJÖ]
- Crawford, Chris (2003) *Chris Crawford on Game Design* [CRA]
- Fullerton, Tracy; Christopher Swain & Steven Hoffman (2004) *Game Design Workshop: Designing, Prototyping, and Playtesting Games* [FUL]
- Koster, Raph (2004) *A Theory of Fun for Game Design* [KOS]
- Mulligan, Jessica and Bridgette Patrovsky (2003) *Developing Online Games: An Insider's Guide* [MUL]
- Rollings, Andrew and Ernest Adams (2003) *Andrew Rollings and Ernest Adams on Game Design* [ROL]
- Rouse, Richard III (2001) *Game Design: Theory and Practice* [ROU]
- Salen, Katie and Eric Zimmerman (2003) *Rules of Play: Game Design Fundamentals* [SAL]

This "canon" of game design was constructed in order to delimit the object of study. The selection process included a few formal requirements. I decided to focus on monographs that provide an overall picture of game design and limited the entries to one book per writer. Since the recent popularization of massively multiplayer online games (MMOGs) I wanted to include a couple of books that focus on the particular challenges these games pose. There are certainly important game design anthologies and works that focus on particular branches of design (e.g. storytelling, character design or level design) but for the sake of clarity they are excluded from this article. I am aware that a different collection of books could be picked and possibly fairly different results could be drawn. The body of literature discussed here is, however, not completely a result of my subjective taste. Instead, during the selection process I have consulted both individuals working in the industry and scholars studying and teaching game design and therefore the collection can be argued to be relatively representative.

The number of game design books has in the past few years grown considerably.[2] The style of the books ranges from practical 'how to' guidebooks to more theoretical works that find their inspiration in academic research. Thus, the emphasis and tone varies but without exception the books

[1] Player-centred approaches are not, however, equivalent to design-by-consensus or design-by-committee.

[2] There was a long pause in book-length presentations after Chris Crawford's *The Art of Computer Game Design* (1984). However, today the production of game design guides can be characterized as an industry. At the same time this genre is perceptibly new and almost every writer is eager to produce an extensive model of the field. Further, other game design literature is often referenced at best sporadically.

under study introduce fairly extensively the formal elements of games. One of the reasons for this analysis of game components is the identified need for critical design vocabulary. Other issues commonly discussed in the books include the game design process, the skills required from a game designer, a short history of game design and introduction to some landmark games. There seems to be, however, no clear consensus on the innermost nature of the activity of designing games. Some writers passionately support the idea of games as an art form and equate game design with artistic expression. Others argue that the requirements for game designer actually bear more similarity to the demands traditionally made for entertainers, engineers, researchers, social directors or craftspeople. [ROL, 4-5, FUL, xv.] The different conceptions of game design, however, indicate relatively different approaches on players. I will come back to the issue of designer-player relationship in the latter part of the article but first I will take a general look at the ways players are treated in game design literature.

INTRODUCTION TO THE PLAYER ISSUE

Based on my research data it would be a mistake to argue that game designers are not interested in players. On the contrary, players are mentioned frequently in various connections. Some writers cover the player issue in a dedicated chapter or part of the book [BAR, BAT, MUL, ROU]. Others [BJÖ, CRA, FUL, KOS, ROL, SAL] allow players to roam more freely on the pages and call them into view as particular themes are discussed. More often than not the player is, however, a theoretical figure that is directed and guided through particular design decisions. Although almost every single book has a definition for 'game' and 'game design', a clear explication of 'player' is often nowhere to be found. Most of the time readers have to content themselves with an ideal player who surely has abstract needs, expectations and capabilities but is seldom further discussed.

In the more formally oriented books players mostly remain structural components of the game. Björk and Holopainen define players as "the representations of the different agencies that are competing (or cooperating) in the game to achieve their goals" [BJÖ, 24]. From this structural perspective players are presented mostly as design choices (how many of them, what kind of roles, player vs. player or player vs. system etc.) [FUL, 43]. Answering these questions surely has a significant effect on the overall design but reveal very little about the flesh-and-blood players. Rollings and Adams argue that "[w]hen designing any game, the first question you have to ask yourself is, what is the player going to do" [ROL, 430]. To answer this question one should be able to define the available player interaction patterns. In a similar manner players are in various occasions considered indirectly. They are discussed in a varying degree at least under the following topics: play, gameplay, interactivity, and user experience. Unfortunately I can't fit a comprehensive analysis of all these topics in this article but would gladly see someone to do it in the future.

Both the relation between the player and the game and the relations between players are covered in a varying fashion. On average, the issues of player identity and player community that are diligently discussed among game scholars get perhaps understandably a relatively practical treatment. Salen and Zimmerman consider the relationship of player and character in the light of sociologist Gary Alan Fine's model of different "levels of meaning". They caution designers of the so-called immersive fallacy, the idea that players would identify completely with the character and to "become" the character they play. [SAL, 453-455.] Bartle also ponders player identities from different perspectives but otherwise the issue inspires mostly very practical takes on character design and development. The issue of community gains most attention from the perspective of MMOGs. Mulligan and Patrovsky have actually quite a few things to say about managing community relations and supporting player-run communities [MUL, 259-271]. Sometimes I, however, find it difficult to avoid the cynical conclusion that the communities are needed primarily to keep the players coming back and paying their monthly fees.

Several books agree that it is important for a game designer to understand and specify her audience [ROL, 41; BAR, 125-128, BAT, xiv-xv]. At the same time there seems to be no mutual understanding of the practical ways of acquiring this understanding. Thus, I will in the following move on to analyze the central viewpoints presented in this discussion.

APPROACHES ON PLAYER

Ideal Player

As mentioned earlier, it is relatively common to write about players in a collective and abstract manner. The various games-related needs discussed in the books are often addressed by "many players" or "most people". In the beginning chapter titled "What players want" Rouse discusses the different motivations of players. The list of player wants is quite extensive[3] but there are no clear guidelines how it is supposed to be used. One has to ask if it is enough for a game designer to memorize this list in order to understand players. The chapter also introduces a similar list focused on player expectations [ROU, 8-18]. Even though the discussion on wants and expectations is very sensible it is not clear where all the claims and facts come from. There is a good reason to question whether all this talk about players is actually just a clever strategy to bolster designers' self-confidence: a good designer knows endogenously what players want. This interpretation is supported in the end of the chapter when readers are encouraged to "create their own list of *what they think*

[3] According to Rouse, players want 1) a challenge, 2) to socialize, 3) a dynamic solitaire experience, 4) bragging rights, 5) an emotional experience and 6) to fantasize.

gamers want" [ROU, 19]. Thus, the ideal player is often produced by reducing players into a collection of needs and capabilities. The attributes connected to this ideal player are mainly based on anecdotal evidence, solitary cases, analogies, personal experience and common knowledge. The value of this information should not be underestimated but the problems start to occur when it is used to draw generalizations.

Another popular approach among the textbooks is to perceive players in the light of popular cognitive science. From this perspective players are taken into account through mental models, memory capacity, pattern recognition, reaction times and other features dependant on human brain. Both Koster [KOS, 12-33] and Crawford [CRA, 41-53] take an interest in the ways brain works and connect this to the ways people play. Koster builds on psychologist Howard Gardner's theory of different forms of intelligence[4] and goes on to explain how game designer can target each of these dimensions. Therefore, since people learn in different ways they will be interested in different games "because of their natural talent" [KOS, 100]. Further, according to Koster "players tend to prefer certain types of games in ways that seem to correspond to their personalities" [KOS, 104]. Be it different brain types, personality types or learning patterns, these divisions have a potential to produce an ever-increasing number of different player types. Thus, the introduction of different predispositions and talents highlights the need for player categories.

Player profiles

Marketing segments

The most rudimentary popular division of players is made between novice players (newbies) and experts (experienced players). This classification is primarily useful when setting the difficulty of the game and tuning up the interface to serve players with varying levels of experience. Another basic model is to group players into hardcore and casual gamers. Hardcore players can be described as game literate people who play as a lifestyle preference and spend substantial amounts of time and money on games. Casual players are understood to be a more diverse group. They play for fun or to kill time, have little knowledge about game conventions and play few games.[5] [BAT, 16.] This hypothetical split is primarily market-oriented and widely known in the game industry. A reference to hardcore and casual can be found in most of the game design books. Mulligan and Patrovsky argue that in case of online games the players should actually be divided into three separate segments: hard-core, moderate, and mass-market. In this case the moderate gamers are something between hardcore and mass-market (casual): they tend to spend quite a bit of money on games but are concerned about of getting as involved as hardcore gamers [MUL, 10-11]. According to Bateman and Boon the audience model of Electronic Arts is actually very similar to the one introduced by Mulligan and Patrovsky. EA, however, refers to the moderate segment with the term Cool Gamers. [BAT, 19-21]. While these basic player groupings are used relatively unproblematically in design literature, a few writers also identify a need for categories that go beyond the popular concepts.

Different genre models can be interpreted to be an indirect way of categorizing players. Market-wise the genre system is based on a conception that certain players buy games of a particular type. While the genre system can arguably be used to acquire data of the relative sales of different genres, this reasoning should not be taken too far since games are neither bought nor played merely on the basis of genre. [BAT, 17-19.] The most comprehensive audience model found in the data is introduced by Bateman and Boon and I will in the following move on to discuss the background and details of their approach.

According to Bateman and Boon the central objective of the book is to introduce "the first detailed audience model produced specifically to inform game design decisions" [BAT, 1]. Their approach titled *demographic game design* is based on a conception that all game design inherently targets an audience. Therefore, in order to produce successful products, the first step of game design is to study audiences. [BAT, 14.] This analysis of audiences is based on so-called Myer-Briggs dichotomies[6]. The personality typing system based on these dichotomies was originally developed in the 1940s and it is based on the work of Carl Jung. According to the writers the typology is publicly recognized and widely utilized among the major U.S. companies. In case of Bateman and Boon, applying the dichotomies to survey data results in four different clusters of play. *Conqueror play* focuses on winning and "beating the game", *manager play* revolves around a strategic and tactical challenge, while *wanderer play* involves the search of enjoyment and fun experience. About the fourth category, *participant play*, the writers have surprisingly little to say. People involved in participant play are told to prefer participating either in the story of the game or in social experiences with other players. One particularly interesting observation concerning this continuum of play styles is that each of the classes includes both hardcore and casual players. The rest of the book then applies the model into

[4] According to Gardner the different forms of intelligence are: linguistic, logical-mathematical, bodily-kinesthetic, spatial, musical, interpersonal, and intrapersonal (internally directed, self-motivated).

[5] 'Casual players' described here should not be mixed up with 'players of casual games'.

[6] The Myers-Briggs system is built on four pairs of traits: introversion – extroversion, sensing – intuition, thinking – feeling, and judging – perceiving.

different parts of game design and analyses the relations between particular play styles and different game mechanics.

First of all, it has to be said that the model Bateman and Boon introduce is refreshing. Even though similar models may have a long history in other markets many of the arguments are fresh when discussing the design of games. It is also important and exceptional that the authors actually spend some time to inform their readers about the hypotheses and research behind the model. Nevertheless, it is not entirely insignificant that the authors persistently use the term *audience*. It is clear that in this book the players are discussed first and foremost as customers who buy games. And if the needs of the customers can be anticipated and classified into categories, these relatively passive figures can be satisfied with new products. Further, the model introduced in the book can at best be a preliminary one since the authors openly admit that they have in some occasions difficulties in drawing conclusions about the insufficient data [BAT, 69]. In any case, the contribution of Bateman and Boon surely provokes important new questions concerning the understanding of players in design. While their player profiles are primarily based on personality typing we will in the following take a look at player categories that find their inspiration in different playing styles.

Play styles

To give context and produce vocabulary to discussions about game systems Fullerton et al. introduce a 'play matrix' that plots games on two axes. The horizontal axis represents a continuum between skill and chance, and the vertical one a continuum between mental calculation and physical dexterity. The matrix can be used not only to chart games of different kind but also to identify different player motivations by asking people to place games they enjoy in different quadrants. [FUL, 208-210.] The matrix is somewhat suggestive of the famous game classification introduced by anthropologist Roger Caillois[7] and highlights the interconnectedness between game types and play motivations. Further, other somewhat related lists of different player roles can be found. Salen and Zimmerman turn to play theorist Brian Sutton-Smith's model of social play roles [SAL, 464-465] and Fullerton et al. list a variety of potential player types [FUL, 90]. These models are, however, not developed further or extensively applied.

Salen and Zimmerman also introduce a player typology where player groups are defined by their relation to the rules of the game. *The standard player* follows the rules and plays the game as it was designed to play. *The dedicated player* studies the formal structure of a game and is able to exploit unusual strategies in order to win. *The unsportsmanlike player* follows the rules but violates the spirit of the lusory attitude. *The cheat* violates the formal rules of the game in order to win the game. *The spoil-sport* refuses to acknowledge the magic circle and attempts to ruin the game. [SAL, 267-285] If Salen and Zimmerman focus on the relation between player and the rules of the game, Mulligan and Patrovsky introduce a grouping based on the relations between players. *The general players* obey the rules and are fairly neutral, much like the standard players of Salen and Zimmerman. *Barbarians* exploit the bugs (cheat) and get their enjoyment from ruining other players' experiences (grief). *Tribesmen* focus on their micro-community. They help other players but can also cause problems if that is beneficial for their team. *Citizens* are described as "the good people" who are likely to help new players, lend their resources for greater cause and always have a nice word for other players. [MUL 216-220] While both these formulations can surely help designers to anticipate player behaviour they still remain relatively abstract and are based more on personal experience than empirical data.

The most thorough and influential model based on play styles is introduced by Richard Bartle. In the beginning of the long chapter focusing on players Bartle makes a following statement: "Players are all different, and they all behave differently. Nevertheless, there will be general playing styles that they adopt [--]." [BAR, 127] Based on his earlier article[8] Bartle then introduces four different player types: *achievers*, *socializers*, *explorers*, and *killers*. This taxonomy has been very influential both among online world designers and game scholars. Both Salen and Zimmerman [SAL, 465-466] and Rollings and Adams [ROL, 521-522] discuss the categories in their book. Further, the player perception of Mulligan and Patrovsky is entirely inspired by Bartle's player types[9]. The merits of Bartle's model are not limited to identifying the four things people typically enjoy in online worlds but he also discusses the dynamics between different player types [BAR, 133-137]. It becomes clear that these relations between different playing styles and balancing between them are of great importance in case of multi-player online worlds. The potential problems with the model rise from the fact that the original categorization was concluded from

[7] In his book *Man, Play and Games* (1961[1958]) Caillois develops a classification of game types based on whether the role of competition, chance, simulation, or vertigo (being physically out of control) is dominant. A short introduction to Caillois's classification can be found in Salen & Zimmerman's book (pp. 307-309). Also Boon & Bateman discuss the categories of Caillois (pp. 84-88).

[8] Richard Bartle (1996) "Hearts, Clubs, Diamonds, Spades: Players Who Suit MUDs", available: http://www.mud.co.uk/richard/hcds.htm

[9] The original article by Bartle is actually reprinted in Mulligan's and Patrovsky's book.

long-lasting debates of experienced MUD players that took place in 1989 and 1990. Thereby, the model is not exactly based on carefully collected and analyzed data on players but more like a summary of different views on the topic. It is also important to question how far the observations made over fifteen years ago on solely text-based online worlds can be applied to present MMOGs.

Bartle himself seems to think that the points raised in his mid-1990s article still hold true but at the same time he is aware of the limitations of the model [4, BAR, 139-140]. He welcomes other people to produce a superior model and openly introduces alternative player categorizations. One of the projects Bartle discusses is Nick Yee's grouping of play motivations. Yee has in different occasions criticized Bartle's model and his research based on exploratory factor analysis reveals a five factor model of user motivations - *relationship*, *immersion*, *grief*, *achievement* and *leadership*.[10] Bartle contemplates Yee's contribution and later introduces four new player categories: *learners*, *experts*, *doers*, *instinctives*. The most visible benefit of the new categories is that they allow Bartle to discuss the development tracks of how people move on from one category to the next [BAR, 165-174]. Even though Bartle's developments are clearly preliminary, the idea of changing and time-dependant player types is interesting. Possibly this notion could be used to supplements the idea of player lifecycle by Mulligan and Patrovsky (confusion, excitement, involvement, boredom) [MUL, 13-15]. All this shows how multi-player aspect brings new absorbing player-related questions to game designers.

Player analysis based on market segments may offer designers a general view of their audience but it seldom helps to understand the interactions between different players. Then again, profiles based on playing styles are either relatively abstract or limited to particular games or genres. While profiles can surely be useful in anticipating or simulating player behaviour it can be questioned how extensively they after all grasp the rich ecosystem of player motivations and creativity. Therefore, I will in the following move on to contemplate the offerings of player creativity to the design of games.

Players as co-creators

In the introduction of their book Rollings and Adams pay attention to the fact that players often negotiate and change the rules of the games they play. They go on to claim that thinking about and modifying the rules is actually an act of design and therefore "[e]very game player is a potential game designer". [ROL, xxi.][11] Certainly there is a long way from a simple change of rules to a development of entirely new game but this observation highlights the overlapping between the categories of 'player' and 'designer'. Also Björk and Holopainen take into consideration the creative contribution of the player. Their approach is based on so-called *game design patterns* that are described as "semiformal interdependent descriptions of commonly reoccurring parts of the design of a game that concern gameplay" [BJÖ, 34]. In a chapter in which they introduce particular patterns for social interaction they discuss the issue of *Constructive Play*. Games that provide constructive play allow players to construct compound game elements. This can in some cases lead to the development of *Player Constructed Worlds*. The freedom of players can be further increased by allowing *Player Decided Results* and *Player Defined Goals*. [BJÖ, 255-258, 317-319.]

Understandably the perspective of MMOGs has an important contribution to the understanding of player's creativity and player-created content. Mulligan and Patrovsky are eager to point out the importance of allowing players to create and tell their own stories and provide their own amusement. They further advise designers to be flexible and willing to change their games according to the actions of players over time. [MUL, 145-148.] The authors continue that designers who allow players to have an impact on the game world will find players to be eager to create their own content. These actions can be supported and managed with providing access to tools that allow players to manipulate and enhance their own gaming experience. Mulligan and Patrovsky suggest that with appropriate tools players can change the *physical*, *political*, *economic* and *social* landscape of the game. [MUL, 152-153.]

In the late chapter of their book Salen and Zimmerman discuss *games as open culture*. Games designed following the schema of open culture allow players to access the game structure and manipulate the meanings attached to it. In other words, the structure of the game grants players explicit creative agency. The writers are aware that the expressions of player creativity are not limited to in-game behavior but that open culture approach can inspire a whole ecology of fan culture. In this connection they introduce a pyramid of player creativity originally described by Will Wright, the lead designer of The Sims. The figure presents the levels of player creativity in the following way: *toolmakers* are the ones who create tools, *object-makers* use the tools to create game objects, *webmasters* host websites that distribute the objects, and finally *players* make use of the objects in their games. [SAL, 538-540] The approach of open culture indicates some changes in the relation between

[10] Since the printing of Bartle's book Yee has slightly altered his model. In [19], central motivations are presented as follows: achievement, relationship, immersion, escapism and manipulation. In [20] he introduces a new 10 component model of player motivations.

[11] Crawford has some words of caution on the notion that anybody can be a game designer. His critique is, however, directed primarily to the lack of respect for game designers game industry sometimes expresses. (CRA, 180-182.)

designers and players. Instead of being afraid that the productive players ruin the game they suggest that "one of the sweetest pleasures as a game designer is seeing your game played in ways that you did not anticipate" [SAL, 540]. Koster seems to share this optimistic notion. He suggests that modding (making modifications) is just a different way of playing the game and later compares hacking a game to the act of literary analysis. [KOR, 142.]

The different manifestations of player creativity indicate that game developers should not get too attached to their designs. Once players engage in negotiation with games they often end up reinscribing and remaking them anyway. To provide an alternative view to the player perceptions I will in the following move on to examine the game design process.

PLAYERS IN GAME DESIGN PROCESS

Game design can be divided into distinct stages. The descriptions of design process have slight differences but in general it can be brought back to following stages: concept design, pre-production, production, and post-production. [9, FUL, 347-358] The process model offers another useful perspective on the roles reserved for players. Sykes and Federoff suggest that game designers could gain clear benefits from different user-centred design techniques throughout all four of these stages [16]. In the following I will take a look how the game design books answer to this challenge.

Briefly, the objective of the concept stage is to create and refine an idea for a game. The game idea obviously involves some sort of outlook of the potential players. Bateman and Boon argue that their model based on market segments can help game projects to succeed by assessing players before design is initiated [BAT, 76]. It is likely that Bartle's player types can equally inform the early phases of design at least in case of multi-player online games. It may, however, be that Bartle's model is even more useful in pre-production phase when the potential user base is sketched in more detail [BAR, 139]. One method that is used in the early phases of development is focus group testing. This is a marketing-oriented approach in which a group of people are asked about their attitudes and preferences towards particular game concepts, games or game elements. Rouse expresses a strong distrust of focus groups [ROU, 19, 487]. His suspicion is directed especially towards using focus groups to test and evaluate game ideas and concepts.[12] A sidebar article in the book by Fullerton et al. takes a fairly different opinion on focus groups.[13] While the writer agrees that focus groups should not be used to evaluate games or to gauge the popularity or quality of game concepts, he suggests that focus groups can be useful in generating ideas for games.

Both Salen and Zimmerman and Fullerton et al. outline a method significantly different from the abstract player models and marketing-oriented focus groups. They argue in favour of iterative design method, which relies on inviting feedback from players early on. In this context "iterative" refers to a process in which the game is designed, tested, evaluated and redesigned throughout the project. As part of this approach designers are encouraged to construct first playable version of the game immediately after brainstorming and this way get immediate feedback on their ideas [FUL, 10-11]. Salen and Zimmerman suggest that the iterative approach is of great concern since it is not possible to fully anticipate play in advance. Later Salen and Zimmerman note laconically that most digital game designers of today do not for varying reasons follow the iterative process. [SAL, 12-13][14]

Playtesting, which lies in the heart of iterative approach, is probably the most established method to involve players in design. Playtesting should not be confused with internal design review, bug testing, usability testing or focus group testing. Playtesting is not primarily about identifying the target audience or tweaking the interface but it is performed to make sure that the game is balanced, fun to play, and functioning as intended. [FUL, 196.] According to Fullerton et al. "[p]laytesting is the single most important activity a designer engages in, and ironically, it's often the one designers understand the least about" [ibid.].

Interestingly, there seems to be a profound disagreement whether playtesting should figure in the early phases of design. Fullerton et al. argue that if playtesting is started only when designers have a fully working game in their hands it is really too late to make any fundamental changes to the game [FUL, 197]. In contrast, Rouse argues, that "bringing them [playtesters] in too early will only delay the game's progress" [ROU, 480]. What this seems to highlight is an existence of two very different takes on testing. Playtesting can either be seen as the central dynamic of the whole design process straight from the beginning or then alternatively playtesting can become a strictly limited phase of the process conducted when large sections of the game are already playable.

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[12] As far as I can see Rouse's suspicion is mainly based on an interview conducted with Will Wright (chapter 22 of the book). In the interview Wright reveals that the focus group for *The Sims* went so poorly that the game was nearly canceled.

[13] Kevin Keeker, "Getting the Most Out of Focus Groups", in Fullerton et al. 2003, pp. 212-213.

[14] Bateman & Boon (pp. 8), instead, advise designers to be cautious about using iterative design as their core method. Their perception of iterative design is, however, somewhat different since their version does not seem to include players at all!

One way to further understand this disagreement is to take a more detailed look at different groups of playtesters. Fullerton et al. suggest that in the early phases of design games should be tested by the designer herself, designers' confidants and some people the designer does not know and only after this should one consider testing with actual target audiences [FUL, 198-200]. If we agree that Rouse is referring only to the members of target audience his arguments become more sensible but they still indicate a very limited perception of playtesting. Limiting playtesting to production stage (beta testing) or possibly pre-production (testing prototypes) indicates a very different relation to players when compared to the iterative process. Leaving testing to the late phases of development can be seen to indicate a perception that players do not actually know what they want but they can only identify it when they see it [ROU, 18-19].

The emergence of MMOGs has highlighted the importance of post-production and maintenance work. It has been suggested that player support can become an important differentiator between competing online worlds [MUL, 188-190]. As mentioned earlier, the issue of player-created content is also of special interest in case of MMOGs. If players are allowed to create content of their own, they will expect some support from the developer.

Obviously the maintenance responsibilities are not limited to online games. Fullerton et al. advise designers to carefully monitor player feedback once the game is shipped. Information gathered from internet forums helps design team to produce "patches" that fix bugs, errors and inconsistencies from the original code. [FUL, 358.] Collecting opinions and suggestions from players brings us back to the concept stage as this information can be used when designing the expansion packs and potential sequels.

THE RELATIONS BETWEEN PLAYER AND DESIGNER

To conclude some of the central themes discussed in this article I have sketched a list of possible relations between players and designers. The various roles and relations can be seen to reflect different design ideologies and traditions.[15]

Designer as Player

Game design books unanimously argue how important it is for a game designer to play games. The idea is that the required understanding and expertise develops on the basis of the personal gaming experience. Arguably, the game literacy needed in the job is very difficult to gain without playing a variety of games. There is, however, a drawback to deriving game ideas purely from other games and individual experience. As mentioned in the beginning of the article designers are often claimed to design too much for themselves and forget the variety of players. This is argued to result in very similar and at best mediocre game projects. Thus, even though playing games is essential for designers it can be only a starting point in understanding the wide variety of players and play styles.

Player as Designer's Muse

One fuction for players in design is that of inspiration. Non-anticipated uses players invent for games and other anecdotal evidence can surely produce new game ideas. During the design process designers can every now and then come back to the inspiring pieces and re-evaluate their targets. The downside of this approach is that the player in question mostly remains very abstract and ideal.

Player as Designer's Patient

Many promising game projects suffer from interfaces and control schemas that are nonassociative, hard to use or illogically mapped. Therefore the known usability methods have their place also in connection to games. Interviewing and observing players and recording their play session to identify the problems players have in interacting with the game is valuable when hunting down the inconsistencies of the software. From this perspective the interaction between designer and player to a large extent resembles doctor-patient relationship. Designer first diagnoses the problems players experience while playing the game or prototype and then carefully attempts to cure those problems.

Player as Designer's Adviser

Focus groups offer a quick method for collecting player conceptions. Marketing executives are eager to use focus groups to evaluate game concepts and to study how much people would pay for the product. Game design, however, probably benefits the most from focus groups that concentrate on generating ideas for new games. In any case, the central method of getting advice from different kinds of players is playtesting. The proponents of iterative design argue that inviting feedback from players early on is the single most important activity game designer engages in. Even if one has studied the audience of the game and has an adequate player model in use it is still not possible to fully anticipate how people play your game. Therefore it is difficult to argue strongly enough on behalf of iterative game design.

Player as Designer

As mentioned earlier, opening parts of the game structure for player manipulation will encourage players to create content of their own. Allowing players to become co-designers can result in novel innovations and diversify the field of games. At the same time there are signs that some developers are considering opening parts of the production pipeline to player input [3]. While openings of this kind are certain to produce headaches to design teams, once successful they may open whole new perspectives to our

[15] This division is inspired by an article by Jääskö & Keinonen [7] in which they discuss the relations between users and designers in different design fields and traditions (pp. 100-103).

understanding of game design. The growing reliance on players work noticeably blurs the boundaries between the categories of 'player' and 'designer'. Therefore, it is not surprising that it has become relatively common to recruit new design team members from player community.

I hope the grouping presented above can increase the understanding of the roles of players in relation to game design. Typically these roles change during the design process. My suggestion is that a successful large-scale design project should possibly involve all these different approaches.

FURTHER DISCUSSION: PLAYERS BEYOND THE DESIGNED EXPERIENCE

As discussed in this paper, players are still often understood through demographies, psychological models or in-game playing styles. The perceptions of player vary, but are still relatively fixed. I am not against abstractions or player profiles per se. Quite the contrary, they definitely have their uses in design, but at the same time one should consider approaches that involve more playing and flesh-and-blood players. Bateman and Boon argue that "because you cannot ask them [players] personally to participate, an audience model is needed in order to make intellectual assumptions about their needs" [BAT, 53]. Based on the projects I have earlier participated I have to strongly disagree with this [14]. Instead, one should seriously consider recruiting player representatives that can actively participate the different phases of design process and share their knowledge with designers. I suggest that if game designers acknowledge the status of players as the specialists of "everyday gaming" they can actually focus more freely on the things where they are good at.

If the game design books are to believe, flexible and playful identities and ludic attitudes discussed among social theorists have very little to do with players. I find it somewhat ironic that only in the Coda of his book Richard Bartle has the courage to discuss "players as people".[16] What this indicates is that in the design of games players are seldom treated as complicated socio-cultural actors. Similarly, the reader of current game design guides ends up knowing very little about the everyday life of players. I find this both surprising and annoying since this is exactly the space where players negotiate the time and place for gaming. Therefore it can be argued that the academic studies of players and experimental player-centred designs have still a lot to offer in widening designers' understanding of players.

[16] Bartle is, however, one of the few writers who actually is interested and capable of discussing the larger societal relations of games. Other refressing exceptions can be found from Salen & Zimmerman (Unit 4: Games as Culture) and Koster (Chapter 9: Games in Context).

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