Player as Author: conjecturing online game creation modalities and infrastructure

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ABSTRACT

As we outline a movement beyond the apparent creative stagnation in the videogames industry we envision possible transformations, beyond the gridlock a producer-consumer dichotomy, that propose to mobilize players as creative actors in a holistic experience. We propose to recognize the authoring roles players develop in their relation to the industry and the gaming community, that configure an emancipation from the current producer-consumer dichotomy. Building on this conjecture we review possible meanings of a *player as author* perspective and conjecture modalities of authorship and participation. We close by outlining some of the design challenges for an infrastructure to support those roles.

Keywords

Player as Author, Player Roles, Game Development, Moding, Emancipatory Paradigm

INTRODUCTION

In this paper the authors will attempt to outline an emancipatory movement beyond the apparent creative stagnation in the videogames industry through a possible transformation that proposes to mobilize the players to the creative process, by enabling them to assume creative roles in online play and development and thus become recognized as authors. For this purpose we will analyze the meanings of a "player as author" metaphor with a discussion of potential roles and challenges in mobilizing players as authors.

But is this a farfetched transition? Do we not see signs of authoring in such phenomena as the creation of game modifications or *mooding*? Is it not the act of playing already a creative one, at least in some gaming contexts? To shed some light in this matter we will look into players' relationships with the medium and other actors (industry and community) and synthesize new professional roles that can emerge from a new mindset. Additionally, we will analyze some design requirements for an infrastructure to openly support these roles.

Criticism of industry's attitude towards creativity is increasingly common either at associative, professional or academic gatherings. One could even argue that the creativity in the game industry has been stagnant for quite some years since new game ideas are rare and new games largely resemble versions of old games with better graphics and sound. New game concepts are indeed rare, with some honorable exceptions, e.g. *The Sims* [17]. Some times novelty is associated with new interaction modalities, e.g., the *Eye Toy* or Siemens's *mozzies* are both augmented reality games that use a camera.

An exception to this scenario has been the growth of an entirely new category – Massively Multiplayer Online Games (MMOG) – a technological and social base that brought with it new opportunities for designing new game modalities. However, most MMORPGs are rather direct adaptations of classic RPG models to a new technological scenario, largely benefiting from more human agency and social activity. Virtual environments target for less structured socializing activities and offer an experience akin to chat rooms on steroids. While these are not bad concepts *per se*, they are hardly new concepts since these can also be though of as technological updates, traceable to the (Multi-User Dungeon) MUD ancestor line. In general, we are inclined to think that the possibilities of the online medium are still very much under explored. An interesting exception to this general approach seems to be the direction being taken by the, still evolving, virtual world of *Second Life* [16], which may be considered as a MMOG where the players can take action to construct the virtual world and as such may lead to the emergence of a strong virtual community whereby players can make real world profits with their in-game creations [11].

This lack of novelty is hardly accidental. Instead, it is being promoted by several factors, including: the games industry being too comfortable with the current lifecycle model of game creation and distribution, the marketing pressures to stick with what worked in the past, manage title portfolio by building on trademark recognition in alignment with the traditional segmentations of player profiles. And why shouldn't they do it? It has been a successful recipe for an industry that generates $7 billion yearly, only in the US [2]. Instead of risking the investment in researching new game concepts, new production methods and distribution models, the industry chooses to invest in increased manageability, in tuning current production models and making them more predictable, even if also more costly or more rigid, in spending money in new forms of property protection and promotion.

If, instead, we have the luxury of acting without an agenda that is hindered by a preoccupation with protecting the previous investments then we will more aptly be prone to consider that novelty is the basis for a new game proposal. If we believe that that extra value or qualitative difference could come from novel gaming experiences that involve the player in new value proposals, that maybe players will buy the game or will otherwise give enough attention to the game, building a community that can result in alternate forms of value for the game promoter. To this respect, we want to conjecture new business models for game creation and distribution that

will work by mobilizing creative people that are now being kept aside by the monopoly and high-priesthood of game design and development, and that could trigger the emergence of new game ideas and new concepts bringing a gust of fresh air into the gaming community.

In this paper we will discuss some of the possibilities opened by reinterpreting the new forms of participation for players in online gaming scenarios, by working in the design and adaptation of the gaming infrastructure and by contributing with interactive content production. Another role expansion stems from recognizing the value of the interpretation, by some players, of specific in-game roles as they contribute to the quality and enjoyment of the gaming experience, a role comparable to theater interpretation.

TRACING AN EMANCIPATORY MOVEMENT

In order to explore conjectures around the player as actor perspective and following the *Context Engineering* approach to development [15] we begin by modeling the context for the proposed emancipatory movement. Modeling the context implies bringing to an explicit level of reasoning the relationships that promote specific forms of activity and the alignment of actors as networks that foster of hinder certain development courses. In doing so, for this context model we considered the player as the central actor and speculated on the possible roles she could play in and beyond playtime. These speculations stem from observing current trends in player involvement and participation. E.g., we can spot seeds of new forms of participation in the *moding* phenomena, when players assume roles as community caretakers and leadership, in independent game development initiatives, or even when we reinterpret some *grief play* manifestations as evident sign of discontentment and will to act beyond predefined roles.

With current technological development we envision a future context where players could be empowered to construct their own game scenarios and make them available online, and in fact in many ways this already happens with many *moding* initiatives. But to achieve this in a widely accessible way and organized as part of a bigger collective construction the interpretation of creative roles needs to become available to interested players at large. The creation capability we would want players to have should not be restricted to scenario changes in what is otherwise a similar experience largely conditioned by the underlying game engine or infrastructure. We could desire for a more open environment where a player could be given full control over a stage and a set of building resources. In an ideal world these resources should enable someone, with less than a university degree in computer science or art design, to collaborate in or deploy playful arenas. Such an intention would require a degree of technological sophistication that would require a level of simplification comparable to what happened with cinema, when technology was black-boxed, a step which fostered the development of specialization of creative roles. In many respects, in games we keep reinventing the camera.

At this point we should clarify that by game creation we mean the range of possible actions from the more artistic such as the definition or loading object models, textures and sounds, camera modes and movements, and other aesthetic configurations to the more programmatic, including the design, implementation or reconfiguration of the game system, including defining roles and acceptable parameters, defining rules and goals, setting conditions and interactive elements, etc. As the *Second Life* case and other *moding* examples already indicate there is a considerable number of players that are capable of, or at least inclined to, creating interactive content for the game [11]. Not only simple things like t-shirts but complex things as well, and things that require combining various skills and expertise. In these early examples we read the signs of a desire

towards an emancipatory movement that reclaims a more creative role for a significant amount of new players. Next we will try to explore the different meanings that can be derived from considering such possibilities, as well as extract some of the consequences from the design of the underlying infrastructure to such a model of gaming context.

MEANINGS OF PLAYER AS AUTHOR

What possible authoring roles are we contemplating in this movement? Are these roles already being played in some tacit or unrecognized form? What does it mean to be, or become, an author? We can think of some ways in which a player can be understood as an author:

- The social construction or emergence of the game experience from the many subjects' individual playing acts in a multiplayer online game is a case were we can recognize different authoring acts, as each player's actions can influence the understanding of the game and goal setting by other players, as a form of acting or interpretation;
- The creation of interactive media items (e.g., personalization textures and sounds) and other types of simple customization, e.g., by adapting previous work;
- The actual creation of game modifications or *mods*, through reconfiguring elements, while staying within the confines of a game language and computational model;
- The creation of behavior scripts and complex object models, a possibility provided by some general purpose gaming engines and libraries;
- The design of new experiences, by working inside or beyond original game infrastructure (e.g., changing the intentionally of existing interactive media), by endowing it with new purposes and interpretations (e.g., teaching a class on a virtual environment) and as such fundamentally changing its language.

First we can consider that the simple act of playing is also a personal creative act in the sense that it is contributing to a personal experience. In a game that has a strict path that the player must follow, e.g., linear adventure games and *shootem'ups* like the *Doom* series, the story of the game is the one there inscribed by the designers and every player has a potentially equivalent experience. In these games, player creativity is more elusive and may be confined to the development of specific playing tactics. But in a game like *Neverwinter Nights* [8], every player has a different story to tell because that story as action space is very open, due to the many sub-goals and related strategies that can meet to achieve the general one. Even though some goals are mandatory to advance in the game, there are so many non-required micro-objectives that the experience of every player can, potentially, be very different. In this case, the personal experience is so unique that the player may even find the value of writing a book of chronicles inspired in her experiences within the game.

Something similar to the previous already happens to the extent of constituting a new artistic genre. A recent film category named *Machinima* reflects on works created by using 3D game environments to shoot animation movies [1]. The first big success was *Red vs. Blue*, a kind of sitcom filmed in the "Capture the Flag" mode of *Halo* [13]. Another similar experience is the creation of a kind of photo novels with scenes taken from *The Sims* [17]. Users made albums of screenshots taken inside the game and composed a story based on them. More than 77,000 of these stories were created and the most popular one was downloaded over 300,000 times [10]. This ongoing production of artistic works, derived from games, leads us to think that there might also be an untapped source of artistic creativity that may possibly be mobilized for the purpose of building games themselves.

Another type of player creation is the typical customization of certain aspects of the game, mainly of the player character. This customization often involves the creation of textures, models and other multimedia elements outside the game that are later imported. In most games user-created content is constituted by multimedia elements, such as 3D models or textures. E. g., in *The Sims* user-created content involves a little more than creating multimedia items, it involves also the parameterization of objects and the definition of simple behavior modification.

Some games take object creation to another level. *Second Life*, for example, offers a scripting language to define the behavior of an object. Objects are created virtually, inside the game, and the player can add a script to the object thus defining its behavior. This type of creation is significantly more powerful as with it players can create completely new interactive objects that provide other players with new possible actions and experiences. This single aspect opens new development possibilities in MMOG which makes this type of creation of particular importance. On one hand it can save time and money for the creators because this type of content production is very resource consuming. On the other hand it may contribute to extend game life because players can always expect to experience something new created by fellow players [12].

A more advanced type of creation is the creation of game modifications or *mods*. These can be so complex that can lead to a completely new game, although the original game engine is required to play the *mod*. The creation of *mods* requires a high level of expertise by the players because it is a very complex activity possibly combining several artistic and technological competences. Mod creation usually comprises new game levels, with completely new objects for a redesigned gameplay. Companies like *Valve* [18] (creator of *Half-Life*) or *ID Software* [6] (creators of *Quake* and *Doom*) explicitly permit or encourage players to do such modification although, rather strangely, they do not permit the authors to explore them commercially. These companies even release special tools to help players to do their *moding* and in this way players help the company by extending the game life and strengthening the brand [14]. But we could also work to enable more players to create entirely new games. In fact there are some kits for developing games already available.

ENABLING PLAYERS AS AUTHORS
Coming back to the player as actor experience we considered in the first point, we should probably stress the creative differentiation from interpreting roles or acting out a script. In the case of games this acting performance can be compared with an *Improv* tradition from theater that with the more traditional acting of a predefined script, only even more open ended. It seems rather near a future professionalization of game playing roles in the sense that it is a valuable activity for other players wishing to participate in interesting multiplayer experiences. In a rather utilitarian perspective maybe one day we can even rent-an-experienced-player to team up for that especially difficult goal in the same way we can now acquire the services of a guide to climb a mountain.

To produce original games, players must be enabled and encouraged to work their ideas from the initial design stages, even if for the purposes of getting it done with fewer resources they lately resorted to modifications or reuse of previous game components. Contrary to the *mod* creation process, we don't envision this game creation to be one requiring intense technical expertise as that would keep a lot of interested people aside. In order to solve this ability problem we need to develop simpler design languages and simpler instruments to begin with. Pragmatically, this

seems a good time to relieve designers from a significant part of technicalities (such as decisions about 3D renderers, etc) so that they can focus more on game fundamentals, especially if we are considering a wider design population. These players-authors should be able to focus on the game design. To support this we need a better notion of how the game design and development is conditioned. As examples, consider the following three non-exclusive mindsets that can be used together to provide a richer development perspective.

Within a ludological mindset games are understood primarily as simulations and can be defined by a set of rules and objects that span the interaction space derived from them. In this approach what seems to matter mostly is *gameplay* and every design object concurs to support or hinder this aspect [7][4]. To empower the author to explore the ludological approach we would require simple and efficient ways to design and experiment with new forms and object behaviors, game rules and goal settings, interactively.

A narrative mindset promotes an understanding of games as interactive stories and a focus on the dramatic intensity and player involvement in the story behind the game [4]. It is hard and tedious to develop linear stories and to manage an hypertext of storytelling possibilities is even harder. In this approach the author wants to provide multiple dramatically interesting paths to follow, something which is especially difficult is to make in a coherent and interesting way. The narrative mindset could be supported by interactive storytelling techniques and instruments that could empower the author to manage the complexity of scripting and character building, while providing helpful indicators of the interaction space being spawned.

A cinematographic mindset would focus on visual language and aesthetics as a primary form of communication and involvement and there are good examples of games with a strong cinematography flavour (e.g., the Resident Evil series and Final Fantasy VII explore typical camera positions and movements that change as the character advances). The camera language of the game should be analyzed with the cinematography approach. If an author wants to make a game with great storytelling, camera control and movement can be used to emphasize dramatic moments and provide a richer aesthetic experience. A simple way for an author to explore alternative "photography" could enhance an existing title and when available could empower the players to spawn new collaborations and forms of expression.

Another aspect that we consider particularly interesting for extended original game development is the explicit support for collaborative development efforts. Some cases following the *open source* model of software development show this is a viable way although the questions of sustainability and distribution of benefits seem largely un-taped aspects. The idea of an infrastructure especially designed to enable the collaborative and distributed creation and deployment of online games that mimics the hypertext development success of the world-wide-web seems a reasonable enough challenge. In this case we must learn the powerful lessons of simplicity and standardization that permitted such a general infrastructure to emerge, enabling such diverse forms of creativity to flourish over it. In fact, simplicity and standardization as still strange words to the games industry and commonly confused with limits to creativity.

SOME DESIGN CHALLENGES

For the purposes previously outlined an infrastructure would need to be built to support and enhance new author and player relationships, attractive to both expert and novice users. Some design challenges for such an infrastructure are readily apparent from the previous discussion:

progressive support for the creation of simple and complex objects, definition of generic game rules and parameters, and goal setting, support for the definition of some narrative elements, support for the definition of cinematographic aspects like camera control.

A debatable issue is whether players should have the freedom to create any object they like. It should be possible to create simple objects such as tables, doors, walls, etc. It should be also possible to create complex objects such as vehicles or such behavior changing objects such as phones. For this we would require progressive layers of accessibility, depending on user know-how or technical ability. The definition of an underlying data model that supports all this range of possibilities should be extremely abstract and computational efficiency becomes a concern.

The problem is that novice, nonprogrammer players would feel many difficulties to create. Although very powerful and useful a scripting language is it cannot be the only method of creation. But for novice users the interaction with the system to customize the previous requirements should be made in a friendly and natural way.

One of the most defying challenges is to create a game development infrastructure that is attractive to both expert and novice users. While for novices we could think of a parametrical set of possibilities, by tailoring objects, behaviors, characters, settings, visual appearance and interface, etc, from a toolset of possibilities, that would spawn a specific game experience, experts would likely venture into detailed creative dueling, that could involve the introduction of new unthought-of elements and variables, even if to avoid a repetitive look and feel. The teaming up of people with diverse technical backgrounds empowers them for this kind of detailed tinkering. A scripting language usually allows for a more detailed control and definition of game possibilities but also requires a bigger learning investment, typically a specific technical background to be mastered. Moreover, designing a game involves such a diversity of aspects that makes it extremely difficult to propose a simple unified "language" infrastructure that encompasses all programmatic and aesthetic dimensions.

But promises of reward from quantitative and qualitative development seem to largely justify the efforts. For this we are currently involved in such a design venture, and are prototyping a collaborative design infrastructure that will enable the "common citizen" to express herself through game design. Interfaces and interaction models can be devised to ease the player experience and attract novice players and the same can be made for design tasks. A known method for achieving this goal is the use of metaphors in interface design. Metaphor is though of as the most common way through which we comprehend and abstract concepts and perform abstract reasoning [5]. We use it intensively in the way we speak, in the way we think, in the way we learn, although we mostly don't notice it. For example, in the way we talk about issues as seeing an object: "sometimes we must have a closer look at an issue"; "we may even have to approach it from a different direction to get a new perspective on it" [3].

Metaphors are quite common and usually tacit, intrinsic in language, largely unnoticed. In Human-Computer Interaction (HCI) metaphors have been studied and used as an important approach to interface design, with the most common example being that of the desktop metaphor. The use of metaphors in personal computation empowered a whole new generation of computer users. Newman and Lamming [9] offer us some heuristics in the use of metaphors and mental models by the users to recognize and reconstruct metaphors. While metaphors can be used for quick learning and use they have interpretive limits depending on actual users' metal

model. If taken too far metaphors can also be prone to confusion (e.g, deletion of files and archives in the Mac and ejecting a disk shared the same mechanism: sending it to the trashcan. Even expert users felt uncomfortable with this extension [5].

CONCLUSION

We outlined a movement beyond the gridlock a producer-consumer dichotomy that proposes to mobilize players as creative actors in a holistic experience. We proposed to recognize the authoring roles players develop in their relation to the industry and the gaming community as initial signs that configure an emancipation from the current producer-consumer dominant relationship. Building on this conjecture we reviewed possible meanings of a *player as author* perspective and conjectured modalities of authorship and participation. We closed by outlining some of the design challenges for an infrastructure to support those roles.

The authors currently the question of how to adequately support a wider population of potential game designers and players, interested in assuming more participatory or alternative roles in the gaming community. They are currently developing a software platform for MMOG which enables the players to create content of their own and collaboratively, from simple game elements to entirely new games. We intend to proceed by further designing, prototyping, experimenting and analyzing the issues raised here.

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