

Games as Structures for Mediated Performances

Video games structure play as performance in both the virtual and the physical space. On the one hand, the player encounters game worlds as virtual stages to act upon. On the other hand, the game world stages the player and re-frames the play space. This essay sets out to suggest some of the elements that are at work in this dualism of games as performative media. The two key elements here are the mediation of the game environment and the transformation of the player through virtual puppetry. Both cases will be argued with a focus on spatiality in performance.

Performance is rapidly evolving into a favorite key reference in game studies. Unlike earlier reference points – like “narrative” or “ludic” – performance is an inclusive discipline. It is been open enough to be accepted in different subfields of game studies. This includes the “performative character” (Aarseth 1997) of ergodic interaction in video games, which helps us to understand the textual formation of a game text; the technological and interface challenges in HCI and digital performances (Jacucci 2004); the idea of “computers as theatre” (Laurel 1991) that led to a fruitful discussion of other theatrical concepts for video game design such as Boal (Frasca 2001) or improve formats (Hayes-Roth et al. 1994); the role of the player in digital media as it develops from an active reader to a role-player (Murray 1997) to involvement in multiple roles (Nitsche 2008); and the development of new game AI (Mateas 2001). Here, performance features are established in the game through design choices such as the behavior of NPCs and AI systems, restrictions of player interaction, and level design, among many options. They allow us to view

games as performing technology (McKenzie 2001), which express something through their specific design. The interplay of technology and human expression also gave way for the development of “traditional” performances by means of digital media (Dixon 2007). From theory to criticism to interface to prototyping – performance studies have infiltrated game studies, and it is a safe prediction to see video games affecting performance practices in return, just as they have influenced other related media. But we cannot take the new symbiosis for granted. Any introduction of an established discipline into the field of game studies not only opens up new opportunities, but can also lead to misconceptions and mismatches in terminology and methodology. Thus, a short introduction into the use of performance studies in this context is necessary.

Performance and Games: A Love Story

The issue of game structures supporting mediated performances is part of a larger role of digital media at large and how they are interwoven with the fabric of our society. Starting in the late 1920s, architecture embraced the cinema as the new technology that allowed and enforced multiple perspectives for the spaces we live in. Addressing the growing symbiosis between architects and film makers, Sigfried Giedion (1995:176) stated that “only film can make the new architecture intelligible”. The moving image became part of the spatial definition of the environment we live and form our social connections in. From the 1950s on, television has been largely accepted as the “medium of the socialisation of most people into standardized roles and behaviors” (Gerbner/Gross 1976:175). Finally, sometime in the early 2000s, we have seen the watershed shift of media dominance onto the computer. Thus, we might rephrase Giedion and argue that only digital media make the environments we live (and perform) in intelligible.

In this spirit, the argument will focus on two key points: (1) the role of mediation in the digital performance and (2) the bodily transformation of the player and the player's space through this performance. Both of them will be argued in the context of performative spaces.

One conception of ubiquity of digital media and video games has been that they allow anything anywhere. As Mitchell (1995:65) argued:

So the social superglue of necessary proximity between performers and audience is losing its old stickiness, and the traditional architectural types and social conventions (going to the theater, cheering for your local team in the ballpark) that we associate with performance are coming unstuck. Speech, music, scenes, and text can now be transmuted into bits and entered into the network almost anywhere. These bits can be decoded to create a performance wherever and whenever a spectator chooses to plug in. Established distinctions between producers and consumers of entertainment (reified by the forms of theater and stadium construction) are breaking down. Soon, all the world will be an electronic stage.

This essay will argue against such an "anywhere/anytime" conception and uses performance elements to support its critique. It echoes McGonigal (2005:471), as she also criticized such a thinning out of performance communities. She argues for more focus on the physical presence of players and sheer size. "Massively more is a vision of digital social networks designed and deployed to produce more pleasure, more emergence, and more superpower, through community formation on a massive scale". While McGonigal proposes large-scale events staged in physical environments, such as flash mobs, to orchestrate these massive events, this text will propose mainly single player techniques in digital video game settings.

The argument is that video games can initiate performative activity but that alone does not automatically turn "all the world" into an electronic stage. Instead, the performative situation during play is

clearly defined in time and space by mediation and player engagement. The relevance of this kind of situated interaction with digital media has been emphasized repeatedly (Dourish 2001). In video games, a situated construction of the performance is a defining moment of the play experience as performance with/in/on a video game is happening at a certain time at a certain place and includes certain actions. Even happenings in the tradition of Allan Kaprow or performances of everyday life activities as Erving Goffman called for still depend on the process of performing itself. They only come into being through the creative activity of performing the action, bringing it to life. Ubiquitous computing and the availability of video gaming “anywhere/anytime” add a new perspective to games not unlike that of the breaking up of established performance situations by Kaprow and Goffman. Players can play video games outside the original theater situations, namely the penny arcades and the living rooms. Yet, this perspective still depends on the actual manifestation of the event; the play as performance. Unlike a flash mob, which stands firmly in the tradition of the happening, the play-as-performance in video games heavily depends on the mediation between different areas for expression. Play-as-performance in video games manifests in at least two locations: it affects the events in the virtual world as well as those in the physical play-space of the player. The former deals with performance issues in the game world itself, the latter with the player’s transformation during play. Both will be discussed below and impacts will be exemplified in two projects.

Performing the Maze: COMMON TALES

An archetypical spatial design which structures a player’s interaction with the virtual game world is the labyrinth. Its shape limits a player’s activity through spatial limitations and forms the play experience through its design. It has been assigned numerous levels of symbolic meanings, but to describe the key element of mediation,

the focus here will be not on the spatial structure itself but on its presentation and the question of mediation of the virtual performance space to the player.

The experimental game prototype COMMON TALES included a sequence set in a small underground maze. During this sequence, the player controls a character trying to escape the antagonist, who chases the player character through the maze.



Fig. 1: Common Tales – the maze level; the maze textured and lit (left); the underlying structure with overlaid interactive triggers and node points (right)

The task was to obscure the relatively simple structural shape of the maze to generate a more complex play experience of the space. We applied spatial design as well as mediation strategies to achieve this goal. The set up was based on parallels in the construction of cognitive maps in physical and virtual environments. Players comprehend and navigate virtual spaces much like they read and understand their surrounding physical spaces (Darken/Peterson 2002). This parallel is based on the understanding that players apply real-world spatial understanding to their encounters with virtual worlds. We apply our spatial behavioral knowledge gathered from physical environments to virtual ones and traverse polygon worlds not unlike real ones. Parallels between game design and travel logs have been noted before, starting with Fuller and Jenkins (1995). However, these approaches

usually imply that spatial interaction and presentation of space follow the same dictum in games as in physical environments. They assume that one cannot be at two spaces at the same time, or that there is a single dominating viewpoint from which we reconstruct the space as presented. Breaking with these assumptions, the maze sequence in *COMMON TALES* set out to apply distorting techniques on the level of the mediation.

First, the sequence used teleportation as a means of complicating the player's understanding of the maze structure. The game's antagonist chased the player's character through the maze, and while the player's progress through the game level remained linear and continuous, the antagonist in pursuit was teleported through the structure and complicated the player's spatial prediction. Thus, it is difficult to read the antagonist's path and predict his spatial behavior overall. The space becomes more complicated as the behavior within it becomes a cognitive problem. This is an active reversal of existent design paradigms for level design (Vinson 1999, Steck/Mallot 2000) and aims at affecting the player's performance in the game world not for higher usability or efficiency, but to increase dramatic impact.

Second, we adjusted the cinematic mediation of the maze sequence to dramatize the virtual stage. The rules of continuity editing which dominates many narrative films suggest certain camera behaviors to ease an audience's reading of the evolving cinematic space. This includes, for example, the law of never crossing the line of action, the limited use of jump cuts, as well as specific degrees of differences between two different and consecutive camera angles (Katz 1991 and 1992). In *COMMON TALES*, players experience the maze through the eyes of virtual cameras that look onto their avatar as she passes through the sewer system. Depending on where the avatar is moving, a new camera can be triggered. For example, turning a corner would activate a viewpoint which showed the adjacent section of the tunnel the character just entered. Educated by film

and TV conventions, players are used to assemble the evolving cinematic space from those shots and orient themselves and their avatar within it.

Although COMMON TALES used the same underlying technology of space-dependent editing (Fig. 1), it diverted from the established rules to problematize the maze through its visual mediation. Camera positions were arranged in such a way as to complicate the space through its visualization. This included, for example, shots that crossed the line of action.

In addition, the maze sequence offered a parallel action. As the player controls the main female character inside the maze, the main male character (which is also playable in some stages of the game) is trapped in a life-threatening situation. To dramatize the connection between the two main characters, the game offers cutaways to the trapped hero. While these cuts allow for dramatic context, they demand a re-orientation of the player every time the camera cuts back to the maze location. Where the discontinuity of the maze-camera broke with cinematic tradition to fragment the space, the cutaways achieve a comparable fragmentation precisely by following established cinematic storytelling techniques.

The result of this concerted effort of complication through visual mediation was that navigating the simple spatial structure turned into a much larger task than the underlying virtual architecture suggests. We tested the level with game designers and producers in-house and found that our strategies worked almost too well.

In a reversal of the COMMON TALES set up, we tested the relationship between spatial zone perception and camera work in a later research project (Nnadi et al. 2008). In this case, we assigned certain camera behavior to certain zones within a much larger virtual outdoor level. Then, we tested whether these camera conditions would affect the recognition of different zones within the game world, or in other words, whether the performance of the camera affects the cognitive

reading of the virtual space. The experiments showed that – after a certain initial learning phase – players did perform much better in spatial identification when aided by our camera behavior.

Comparable visual strategies are applied to video games such as the modern PRINCE OF PERSIA (since 2003) or the GOD OF WAR (since 2005) series – not to distort but to dramatize game levels. The growing vocabulary of these mediation techniques and the learning phases in adjusting one's spatial reading of virtual worlds indicate that we might face a growing literacy on the players' side of such game mediation techniques. Players might literally grow into the new roles these games provide for them and – not unlike the development of film language before – learn to deal with their intricacies. In that way, the mediation of the game environments clearly shapes the performative situation during play. They become a third actor in the event, defining a player's spatial experience of the virtual stage.

Transforming the Player: Virtual Puppetry

Early discussions of theatre and digital performances often concentrated on text-based or relatively basic graphic worlds (Schrum 1999), or they pointed toward future possibilities. For example, Murray (1997:154) defined a player's transformation in reference to the transformation of the Brontë children into active authors of fiction and argues that

[t]he transformative power of the computer is particularly seductive in narrative environments. It makes us eager for masquerade, eager to pick up the joystick and become a cowboy or a space fighter, eager to log on to the MUD and become ElfGirl or Black-Dagger.

More recent studies acknowledge the role of the evolving technology and suggest a blurring of the magic circle, which is often used to demarcate the space of play and fiction from the non-play space

(Kristiansen 2008). In this case, a key point in the discussion of the player transformation is not found in the structural quality of the virtual world, but in the interfaces used to access these worlds.

From the limitations of the one-button-joystick connected to the Atari VCS to the use of video cameras as input devices and motion detecting controllers, the level of input complexity has changed significantly. With the growing role of virtual characters in game worlds, these controls have become closely interlinked with these characters' expressive range. We have arrived at the practice of virtual puppetry.

Avatars have been identified as various functions in video games: from a form of access point like a cursor to an expressive projection for some form of self-realization (Turkle 1995) to an identification plane into fictional worlds (Ryan 2006). In order to take their position as expressive means, Perlin (2004:17-18) has pointed to a necessary richness in the expressions of the virtual avatar:

It is my contention that these efforts cannot move forward to merge film and games, and that we will not be able to find a way to create an intermediate agency that will allow the viewer to find their way into caring about characters, until we provide a way that characters can act as well enough to embody an interactive narrative.

Much of Perlin's more recent work focuses on the optimization of procedural animations for such expressive game characters. Like the elements of spatial game world design outlined above, this ultimately sees the performance as an expression through and within the game engine. While this is one valid approach, the reverse perspective needs investigation, too. One has to include the emergent play behaviors and the expressions that players bring to the game world which grow from their physical body.

The expressive range of the virtual avatar is certainly of importance, but it is only the virtual side of the performance. The way players can contribute their own body expressions is the equally important other side of this coin.

Based on our earlier work on puppetry interfaces for players of virtual worlds, Ali Mazalek, Sanjay Chandrasekharan and the author are currently developing a video game system at Georgia Tech which transfers a player's own movements to an avatar using a tangible interface (Mazalek et al. 2009). The main purpose of this system is to investigate the interconnections between a player's own movements and that of the virtual avatar. Its key research question is to see whether a player sees herself in the motion of her controlled game avatar and if so, whether this perception can be utilized to affect the player's movement memory. These effects describe an essential effect of the player transformation, as they allow us to measure the level of self-recognition of the player in the game character through the tracing of her movements.

Our experiments show that players can indeed project and identify their own body movements in an abstracted character representation. They remain capable of identifying their own movements even if their representation is heavily abstracted. Thus, we can quantify one form of cognitive projection from the player onto the virtual avatar and are able to explore the reverse level of transformation of the human player into the virtual movement body. The body memory of the player is activated during such a virtual performance and the animations are realized not only in virtual activity, but in the physical and cognitive processes of the player as well.

These interfaces remain experimental for the time being, but the range of motion controlled interfaces from the Wii controller to the upcoming Sony motion controller and the camera-based Kinect by Microsoft pave the way for this kind of direct player engagement which is based on a physical mapping of own body movements onto a virtual world. One significant effect of these kinds of interfaces is a clearer inclusion of the play-space into the overall experience. While our experiments trace the value of tangible interfaces for a recognition of self movement in an abstracted virtual world, our interfaces

also become performance devices in their own rights. The puppet interfaces we are developing are significant performance artifacts in the play space by themselves:



Fig. 2: Embodied Digital Creativity project; the interface reflects and shapes the performance of the player

These interfaces are part of a new invasion of the living room, one that not merely suggests more media streaming through more channels, but that engulfs the physical location as part of its interaction design. They transform not only our body and its animations, but turn our living spaces into performance places and remediate the architecture and interior design of our play rooms into parts of the game stage.

Performing in the Here and Now

As stated in the beginning, electronic media find us at the crossroads of where we can locate ourselves. Meyrowitz (1999:100) has argued that electronic media have broken down social distinctions, barriers of public and private, so that “[m]any Americans may no longer seem to ‘know their place’ because the traditionally interlocking components of ‘place’ have been split apart by electronic media”. This essay provided a highly selective discussion of how structural elements of games support the performative situation and position of the player in relation to the game world. It suggests that the interplay of spatial design, its mediation, and innovative interface development support a possible relocation of the player in the performative situation. We may just find ourselves in those roles that the games provide to us.

This seems of most relevance in the field of social media, where countless players continuously follow paradigms of interaction and spatial design to express themselves and communicate with others. Whether it is a set path for a quest in *WORLD OF WARCRAFT* (2004) or the personalized imagery of one's facebook site, we play as performance for others. We find ourselves in newly structured performance spaces which promise familiarity and place-ness through involvement and mastering of the available options. Because we perform and transform ourselves and the places around us during our engagement with video games we are promised a new space; and because video games and related digital media shift into our cultural sphere they also increasingly affect our daily performances.

As the pioneer of human geography, Yi-Fu Tuan (1990:236), states: “Culture viewed as speech, gesture, and action is performance; and performance not only requires but commands its own kind of space”. The more this communication is turning digital and the more we become accustomed to video game landscapes as experiential spaces and our living rooms as their physical counterparts, the more these performances will evolve into digital hybrids. To outline some shifting demarcation lines of these hybrid performances was the goal of this essay.

When the music stops or when the curtain falls there is a moment of silence during which the spectators wait for their souls to return. Separated physically from the object of attention, audience involvement can nevertheless be total, which should encourage us to reevaluate the insight that separation is a precondition for becoming deeply absorbed (ibid:244).

Games offer structures and mechanisms that allow for this kind of absorption and they increasingly provide for performances in both worlds at once.

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GOD OF WAR (since 2005), SCE, Playstation 2.

WORLD OF WARCRAFT (2004), Blizzard Entertainment, PC.

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Response

Nitsche makes an incisive observation relating to the transformation of interior spaces by gaming interfaces that bears repeating:

These interfaces are part of a new invasion of the living room, one that not merely suggests more media streaming through more channels, but that engulfs the physical location as part of its interaction design. They transform not only our body and its animations but turn our living spaces into performance places and remediate the architecture and interior design of our play rooms into parts of the game stage.

As Nitsche points out, console gaming is already transforming the internal organization of media consumption. The performative needs and affordances of the new forms of interfaces that Nitsche discusses, such as the Wii and Kinect, are undoubtedly creating an increased potential for physically situated performance. On the other hand, Nitsche's rejection of Mitchell's argument of an "anytime/anywhere" performance seems based on a narrow slice of games and game related performances.

As Nitsche emphasizes in the concluding paragraphs of the paper, our playing in the virtual worlds provided by MMOGs like *WORLD OF WARCRAFT* (2004) constitutes a form of performance for others. Unlike the single player game world, such environments always imply an audience, whether the players are consciously aware of it or not. The possibility of being witnessed by others, or more directly, the performative interaction with others, creates a sense of performance that is "becoming unstuck" (Mitchell 1995:65). The MMOG situation is, in fact, a great example of the de-coupling of performance that Mitchell foresaw. I find Mitchell's characterization significant particularly because it comes right before the age of graphically massive

multiplayer games, whose persistent societies and sprawling landscapes gave the performances therein the placeness described by Tuan in the concluding comments of the paper.

But this de-coupling of performance is not only vibrant within MMOGs, but is becoming increasingly popular with the increasing ubiquity of multi-player gaming in general and with collaborative multi-player campaigns catering to small groups, such as LEFT FOR DEAD (2008), CALL OF DUTY V: WORLD AT WAR (2008) and BORDERLANDS (2009). The collaborative performances afforded by such games tend to have richer narratives since these can be dedicated to one group, rather than a few hundred thousand individual players.

The decoupling of physical embodiment from the site of performance these games allow is increasingly becoming a standard feature in contemporary games. It is true that the Wii and Kinect offer sites for locally situated performances that more closely align the off-screen with on-screen actions, but these are a relatively small portion of the gaming landscape. Their existence does not exclude or diminish Mitchell's argument of a displacement of performance from the physically embodied actor. Quite the contrary, I would argue that the increasing ubiquity of networked play emphasizes the importance of considering these forms of performances.

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