

Seeing Action: A Visual Analysis of *World of Warcraft*

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Abstract: Games are *meant* to be played. Most modern videogames, however, are complex spaces full of dynamic images and shifting goals; navigating these complex spaces is challenging for players as they must learn how to act in order to succeed. How do the designers of a videogame support players' learning and using the game? What resources can designers call upon to help players actually play the game? Using the massively-multiplayer game *World of Warcraft*, I contend that there are two primary visual methods designers use: the orientational structures of the interface itself and the interface's just-in-time/on-demand nature. Through these structures, the designers teach a player what and when information is salient in order for the player to take action and "do" the game as well as provide spaces for players to learn to master the game itself.

Interaction is, of course, a key feature of videogames. How a player controls certain events within the game world and how this world informs the choices made by the player are essential (if not uncontested) notions that help define videogames as a genre. Players use an interface—physical as well as conceptual—to influence the outcome of the afforded design of the game; and, depending on how previous actions affect the game world, the player then uses this interface to make additional choices, and the cycle repeats. What are these interfaces, and how do they make the game possible? As noted, they are both physical interfaces (keyboard and mouse or other controller, even the body itself) and conceptual (icons, buttons, cursors, and more complex visual representations as well as aural information and kinesthetic feedback). Game play requires both the physical and conceptual interfaces; however, this analysis focuses on the latter category and considers the manifestations of the on-screen interface to describe how players make sense of the world in which their actions take place.

This implies that videogames are designed texts and are created with particular affordances and limitations as a vehicle for the player to co-create and experience the game (Gee, 2007; Squire, 2006). Because a game is designed as an experiential space, the designer creates the text with the player's actual performance in mind; that is, the designer makes choices that help the player actually *play* the game. They may not create "complete" tools sets for users in order to provide some level of challenge (and, therefore, purpose) of the game. Nevertheless, the designer's intention is that the game will be played, and therefore creates a space in which a player can learn how to navigate within the world and perform the actions necessary to progress in the game.

Here, then, is another key element of games—that of *progression*. Progression refers to the notion that players work towards a goal, and that the game operates as a channel through which that work occurs; gameplay is a function of the change of states of the player through their interaction with the game. This implies that the player must transition from novice to master of the discourse of the game in order to make progress (Gee, 2007); it also implies that the designers must create a system through which players learn this discourse in order to master it. More specifically, game designers must utilize the interface as a resource to provide information for the player to make meaningful and then use to take action.

So, we can refine the question even further: what resources can designers use to support this progressively dynamic interface through which players interact with the game? Further, how do these structures support the progressive nature of gameplay, both in terms of moving through the game as well as in players' progressive understanding of the game and shifting from basic performance to high-level performance? Using the massively-multiplayer online game *World of Warcraft* as a lens to focus this analysis, I contend that there are two primary methods the designers of this particular game, Blizzard Entertainment, Inc. (hereafter referred to simply as Blizzard) use: the orientational structures of the interface itself and the interface's just-in-time/on-demand nature. Through these structures, the designers teach a player what and when information is salient in order for the player to take action and "do" the game as well as provide spaces for players to learn to master the game itself.

Theoretical framework and methodology

I focus on two images (see Figures 1 and 2), which provide a strong sense of the dynamic nature of the gamespace of *World of Warcraft*. I have attempted to choose views and situations that players commonly encounter rather than looking for images that represent the extreme ends of a player's experience; however, the very shape and function of the game suggests that any images will show variation—sometimes profoundly. Figure 1 represents what might be considered the “standard” view when the player is at rest; the elements in this image (with some exceptions) are always present; similarly, Figure 2 is a “standard” view while in combat and grouped with other players and the elements in place here are normally present while in this state. Figures 1 and 2 can safely be assumed to represent the “normal” images players encounter when starting the game and when playing it at a high level.



Figure 1: *The initial view of a new character at rest*



Figure 2: *High-level character in combat*

For this analysis, I have adapted several theories outlined by Gunther Kress and Theo van Leeuwen's *Reading images: The grammar of visual design* (1996) and subsequent writings. In particular, their work on the composition of an image relates closely to an analysis of the player's relationship to their avatar, with the world around them and with their ability to act. Kress and van Leeuwen define composition as “the way in which the representational and interactive elements are made to relate to each other, the way they are integrated into a meaningful whole” (1996, p. 181). There are also significant “representational” and “interactive” elements that the designers use to create the interface of *World of Warcraft*, but to understand how the interface functions in such a dynamic space requires considering these parts collectively as well as individually.

Among the elements that align more closely with the study of a videogame, point-of-view, framing and salience are perhaps the most critical. For Kress and van Leeuwen, point-of-view describes position of the viewer in relation to the actors and objects within an image. Meaning for the viewer occurs in part by how they are situated to the “subjects” of the image; viewed from above, the viewer assumes

more power in relation to the “object” of their gaze, while the opposite holds true as well. Similarly, the distance at which this object is viewed helps determine the social relation between the viewer and the subject; an extreme close-up of a subject implies a close, socially-intimate relationship, while a character seen from far away is detached and remains a stranger to the viewer. Point-of-view is a key *socially relational* tool.

Framing is a relational tool as well, though less about the viewers’ relation to the subjects of the image than to the information conveyed. Framing refers both to visible frames (such as a box around an object, even the borders of the image itself) as well as invisible or implied frames (including objects aligned with each other). Further, I consider Kress and van Leeuwen’s notions of “given and new” and “real and ideal” (1996, p. 186-193) a particular kind of framing technique; while they consider the “given and new” and “real and ideal” as part of the “information value” of an image, I extend framing to include this informational value on a somewhat literal level—as part of the framed image placed in a particular spot. For Kress and van Leeuwen, the left/right and top/bottom orientation of the information in an image (and therefore, how it is framed within the confines of the image) provides an internalized narrative where the information on the left of the image is “presented as something the viewer already knows, as a familiar and agreed-upon point of departure for the message” (187), while information on the right of the image is “presented as something which is not yet known, or perhaps not yet agreed upon by the viewer, hence as something to which the viewer must pay special attention” (187). Similarly, top/bottom orientation provides information about the objects within an image and their status in relation to the viewer.

The third of Kress and van Leeuwen’s elements critical to this study is salience, or to what degree particular information is important in the image. Size, contrast, and location within the frame of the image all play a part in enhancing or minimizing the importance of a particular object; a large, centralized, strongly contrasted object appears more “noticeable”—and therefore more “important”—than a small object in a corner of the image that blends into its surroundings. Salience is also an informationally relational tool in a similar sense to framing; it helps the viewer discover what information might be important by highlighting it and drawing attention to it.

For the purpose of this analysis I have limited my focus primarily to the structural elements of an image; that is, the means through which designers attempt to convey meaning, not the meaning itself. This is not to suggest that I avoid the meaning of specific resources exactly; rather, I treat these “meanings” on a somewhat functional and generalized level. Not all icons mean the same thing, for example, and each conveys specific (and potentially unique) information. Further, I operate under the assumption that many of these tools are conventionalized within the genre of videogames and that users have a general understanding of these conventions, if not specifically within *World of Warcraft*. Together, these compositional elements create what I call *orientational structures* through which the designer helps to “orient” a viewer to the information the designer attempts to convey and provides tools to the viewer through which they can co-construct the meaning of the image.

Finally, it’s important to note that this analysis draws on my own experience as a player (and learner) of *World of Warcraft*. Having played videogames for much of my life, I am an experienced gamer, but I was new to *WoW* and the MMO genre; I assume my interactions in learning the interface was typical or average of most players. A more robust analysis would include player interviews or other qualitative/quantitative data collection to complicate or confirm this description. Nevertheless, I believe that many of the experiences I describe below are common enough to be meaningful.

Oriental structures

To organize the specific orientational structures *World of Warcraft* employs, it is necessary to differentiate what kind of information is being conveyed and how before bringing it together to understand how this information is used by a player to play the game. In particular, how characters are oriented to their in-game representation (the avatar), the world around them, their abilities to act and with other “feedback data” each provide particular examples of the structures at work. Taken together, these structures support the other key function of the game, progression, which is covered in the later portion of the analysis.

Player character

One of the clearest ways of visualizing the player-in-space is through point-of-view. Some games exclusively use a “through-the-eyes” or first-person view; the player does not see themselves at all,

but rather takes a position of looking at the world as if they themselves were in it. Other games provide a third-person view exclusively; still other games allow users to change their point-of-view; *World of Warcraft* falls into this latter category.

Figures 1 and 2 represents the default camera view of the game. There are other possible camera angles that a player can use, from an extremely far distance to a close-up of their character's face to a top-down view to a first-person view. Players can rotate 360 degrees horizontally around their character, and 180 degrees above their character down to ground level; they can also zoom from first-person out to about 50 yards away from the character. However—importantly, as we shall see—the camera always remains centered around the avatar. The camera, therefore, is a free-floating, user-controlled tool that occupies a half-spherical space of about 100 yards in diameter centered around the player's character.

Two key considerations take place in the player's relation to their avatar. First, they remain both detached and connected to their characters at all times (very few players use the first-person view as it is impractical for most tasks, which depend on high spatial awareness; third-person is the dominant view). Second, their character is always at the center of all actions that they witness in-game (again, discounting special circumstances like trade skills windows and cinematic cut-scenes). Both features play a significant role in orienting the player to themselves in the game and in learning to take action. However, identification with the avatar also depends on its position within the frame of the screen as well as the distance of the camera. That is, even zoomed out to the maximum distance, players are still centered on their character, so any exploration of the surrounding space is related directly to its relationship to the avatar itself. This centralization of the avatar enhances the identification potential of social distance by tying the world to the character regardless of the distance of the camera.

The centralization of the character plays another role as well. By tying the view of the avatar to the center of the screen and relating the rest of the world and other information to the avatar, the player learns to navigate the world through that character and to pay close attention to it; it becomes salient in that all action flows *through* the relationship of the viewer and avatar—all other information becomes important in relation to that centered view. As the in-game representation of the player, it is important to ensure that the player pays attention to the avatar; Blizzard utilizes a structure that puts the character at the heart of their every encounter with the world in order to emphasize its relative importance to the player.

Game world

The avatar is only one way of relating to the game world itself; there is also the surrounding space in which the player acts (the environment) as well as other players, objects, and actors with which they interact. These objects and places not only “flesh out” the world, but provide a way to orient the player to their potential actions and to understand those actions and how they will in turn affect the player. It provides a “place” for the player to perform their actions. More literally, the world players navigate surrounds them completely in the figurative sense (they are “in” the world at all times) as well as a literal sense (they are always seen “in” the world in that it is ever present in the frame of the screen). The world fills the frame, and serves as a kind of “background” on which the player acts, as well as for other informational elements of the interface. The world is foundational in several ways; as a backdrop for action, it is a critical way to orient the player to *where* they are acting, which also influences how they act (they won't try walking through a brick wall, for example, or off the edge of a cliff); it is also foundational in a structural sense in that it provides the boundaries of the viewed world and the space on which all other information is projected. The world is thus both important (it's the context for action) and sublimated (it's a background). In terms of salience, the world can be both important (the player must pay attention to where they are acting in order to decide how to act) as well as less-important (much of the world can be “ignored,” such as the buildings in the distance, and the player can still function effectively).

The game world, however, isn't limited to just the territory of the game; it also includes objects and players with which the player interacts. Because *World of Warcraft* is a multiplayer game, the player exists within a world filled with other players playing synchronously. And because the space is a fully realized “world,” it is populated by objects for the player to use. Indeed, the bodies of the characters are not the most distinguishing feature of another player; instead, players have “nametags” above their heads that identify them and their affiliation to a guild. These objects and players also help orient

the player to the world by showing them what they can act on and who else might be involved. In this way, the world is more cohesively presented as a “real” space that the player can act within.

Abilities

These actions take several forms: they are locomotive (the player moves from one place to another), they are interactive (clicking on an object), and they are more abstract (casting a spell or dealing damage). Figure 1 shows the initial screen a player encounters when first creating a character; along the bottom of the screen, a row of buttons appears which contain several icons—these icons are the “action potentials” a player can take. As players progress in the game, they gain more abilities, and the interface provides more space for additional icons (and, therefore, ways the player can act).

A player is presented with a large number of ways with which they can act in the world; however, it is important to note that these actions are contextual and cannot be used at all times—damage-dealing abilities like spells and attacks cannot be cast outside of combat (generally, though there are some exceptions), while some actions such as fishing or trade skills cannot be used while in combat. So even though the action-potentials appear at all times on the screen, they are not useable at all times. This notion will become more important in subsequent sections of this analysis, but here it is enough to acknowledge that the icons are ever-present but not ever-useable.

Also worth noting is that the interactive object for the player is split; it is primarily the avatar through which the player moves and acts with the world (the vehicle), but the player also uses a cursor to click on objects within the interface as well. This cursor changes shape depending on the potential action available, from using the in-game mail system to selling goods. This division of vehicle to drive the player and a separate interface object to perform specific actions sets up an interesting dynamic for the player. On the one hand, it separates them from fully embodying the avatar since they can manipulate the world via the cursor; however, it also serves to tie the interface objects such as the actions bars to the avatar, since clicking on an action button makes the avatar perform that specific task. The division of body from the action selection device (the cursor) is primarily a way to link the interface with the world itself.

The position of the action abilities also help the user focus on them; by placing them in the lower portion of the screen, they too serve a foundational role—they are at the heart of all the things that a player does in the game (with previously noted exceptions). Because they are central to the actual performance of the game (that is, in fighting of enemies), these actions appear in a portion of the space that is literally the base of the screen. Extending Kress and van Leewen’s notions of “real” and “ideal” frames, the actions available to the player, the “tools” to work on the world, are at the bottom of the screen, and represent the “real” world actions they can take, while the upper portion of the screen shows status-level information like player health. These status-level elements of the interface represent what the player ultimately wants to accomplish, while the action-potentials represent the specific means to do so.

Data

The interface, however, also includes other elements beyond the action-potentials represented by the icons of the action bar, including player and target health, a mini-map in the upper right corner, a chat window in the low left portion of the screen, party-member health, real-time information like damage taken and dealt, and other information. Collectively, this data serves as additional orientation for the player by providing necessary information based on what they are doing. Some of this additional information appears automatically—combat text, for example, appears whenever the player is engaged in fighting an enemy. Some of this information is available at the player’s discretion and accessible through a keyboard button or other interface button such as the player’s inventory as well as more abstract concepts like player statistics (strength, agility, spirit, etc.). The player has access to both things with which to work (objects in their inventory) and the concepts through which they use these objects (their relative strength or their health pool, and therefore their ability to effectively wield a sword, for example).

Structurally, the interface elements are aligned within the frame of the screen in particular ways. These interface elements generally occupy the margins around the centralized avatar, and create a frame around the player which contains pertinent information. Combat text occurs within the space around the player on top of the game world and complicates this relationship, but I nevertheless consider it part of the frame around the character; the frame just has somewhat fuzzy boundaries.

Nevertheless, this frame reinforces the centralizing features of the avatar by tying all of the information around it.

The information within the frames takes on various levels of salience for the player. Again, since they are tied to the avatar by being placed around it, they can be assumed to be important and related to the status of the character. Since many of the elements of the interface are always present, they can again be assumed to be worth paying attention to since they likely provide information necessary to the player. By separating these elements from the background, the elements stand out and again can be assumed to contain valuable information for doing the game.

Orientation and progression

So far, I have discussed the structures in place to help orient a player to the game world, and some of the ways that these structures emphasize certain information as important to the player. But what about one of the primary assumptions described at the beginning, that of “progression” through the game? Here, I mean progression both as moving from point to point (following the narrative of the game, for example, or gaining skills as the player gains levels), but also in terms of the player's performance as they learn to master the space and their actions within it. How do these structures support this progression of the players' interaction with the game? As players gain new abilities and experience more of the world, the interface changes to provide more information to them; further, as players experience the world and interact with it, they learn what information is important and when in order to act more effectively.

Capacities

Capacities for the player include both action-potentials as well as conceptual information about the world and about themselves. As players progress in the game, they gain levels and abilities. Every other level or so, a player will have access to a new attack or healing ability. In a very literal sense, then, their ability to act has progressed from a few to numerous ways to act within the world. Similarly, there is a progression in the amount and type of things the player can interact with. The player, as they gain levels and progress through the game, gains more space to store objects as well as encounters a greater variety of types of objects (from equipment to trade skills materials like herbs and leather to quest-related objects and others). Not only has their ability to act increased, but they types of things they interact with and the spaces for those things have expanded as the player levels.

This notion of progression, however, is even more nuanced. In describing the player as gaining levels and abilities, I assume the position of the player; that is, I am referring to how the player progresses in the game. As they level, they gain abilities and objects to act through. However, from Blizzard's point of view, progression works almost oppositionally to the player's perspective. Blizzard designs the game around the high-level abilities and content, and then must pare it down for new players. They create all the abilities and subsequently limit these abilities to certain thresholds. Rather than giving players new abilities, Blizzard eases the restrictions on a player as they level. This is an important, but somewhat tangential, observations that is nevertheless important to consider when thinking about the designer's ability to provide meaningful structures for the player to learn the game.

Salience

These meaningful structures, then, are put in place not only to support the players' current actions, but to encourage them to learn how to use the interface in order to progress towards higher content. To do so, players must understand what information is important to them at a given time for a certain situation. We have already seen some ways in which information is made salient to the player, from the centralization of their avatar to the framing of the status information around them. However, salience also depends on this developing notion of progression in that players learns *what* information is important by *when* they encounter it in their gameplay. That is, the orientational structures of the interface provide clues to the salience of particular information only through the player's evolving experience with it.

During the course of various gameplay experiences, a player's focus may shift from different parts of the interface depending on what they are doing in a given moment. During combat, they may focus on their health bar, while during communicating with a group of other players their focus is likely on the in-game chat window. How does this shifting focus occur? How do players *know* when to seek out pertinent information? In short, how do players know what information is salient at any given time? Partly, the structures already described—centralization, framing, etc.—support the player's learning

about when to call on information. The other part of the answer lies in the “just-in-time” and “on-demand” nature of the interface (Gee, 2003; Klopfer, 2008). That is, players are provided important and timely information when they need it which can be called upon by the player to make it meaningful. Further, this process is refined by continual use of the progressive nature of the interface.

By just-in-time, I mean that information is available to a player when they need it. In combat, for example, text appears displaying the damage they are taking and dealing. This information is not available out of combat since the player doesn't need to know that they are not doing damage. The game only displays that particular information when it *might* be useful to a player; it does not hide combat information and withhold information from the player. Similarly, the game does not present much unnecessary or superfluous information (within certain constraints). The interface is designed by Blizzard to provide information to the user when they need it in order to act.

However, just because the information is available to a player does not necessarily mean the player actually makes sense of it. Confronted with Figure 2, for example, a new player would likely be overwhelmed by the sheer amount and variety of information and not be able to actually play the game. Instead, the information presented must be available “on-demand” to the player. By this, I mean both literally (they can access it when they want to, such as opening their inventory or character pane) but also must be accessible to them *when it matters*. The latter is by far the more important feature, and perhaps at the very heart of gameplay, for understanding how to operate within the affordances and limitations of the game world *is* playing the game. In other words, knowing when to call upon the resources available to the player in order to act constitutes game play itself.

How players gain this understanding of when to call upon given information is supported both by the structures in place within the interface (the placement of objects, the framing of the screen, and so on) as well as with players continuous experience with that interface. As they progress in level, these encounters become more complicated, until they reach high-level content like that shown in Figure 2. By this time, they have encountered the various elements of the interface enough times to know when to call on the various elements. Through playing the game and using the interface repeatedly, players learn how and when to access the elements that are most important for their continued action within the game world.

Conclusion and further study

In essence, then, the designers of *World of Warcraft* (Blizzard) utilize the orientational structures of the visual interface in order to teach players what information is salient and when in order for the player to take actions and *do* the game. These structures include the player's relation to their in-game representation and others within the world itself, as well as the way information is framed around the player to connect status-information and action-potentials to the character (and thus, the player's ability to act). But these structures also rely on the player's engagement with the elements of the interface over time, and the progression of both the player's capacities as well as their meta-level knowledge of the interface in order to perform at a high level. This high-level performance is the ultimate goal of Blizzard, and the structures they employ support a player's progression towards this goal. Understanding how players make sense of their actions constitutes the culmination of the design and presentation of a game. Players are *meant* to play the game; knowing how they come to this play capacity is central to the study of games and in the continued evolution of game play itself.

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