

Wallhacks and Aimbots How Cheating in Computer Games Changes the Perception of Gamespace

Julian Kücklich
University of Ulster
julian@kuecklich.de

Learning how to play a computer game always involves learning how to negotiate gamespace. In simple games with a fixed perspective, such as *Tetris* (1989), this is a trivial matter of associating buttons with movements on screen. In more complex games, especially 3D games such as *Half-Life* (1998), in which game space is experienced from a first-person or third-person perspective, this involves a process of inhabiting the body of one's on-screen representation, and understanding this virtual body's relationship with gamespace. Generic conventions, such as using the W, A, S, and D keys on the computer keyboard for movement in first-person-shooters, simplify this process of inhabitation, similar to the way that learning the conventions of film enables the viewer to "suture" the gap between self and screen (see Miller 1978).

However, gamespace is much more open to manipulation than real space or film space. The fact that gamespace is not bound by the laws of physics means that space does not have to be continuous –it's not an accident that teleportation is a recurrent motif in computer games. But even if there are no teleportation devices, the discontinuity of gamespace can be exploited. One especially interesting way of increasing the possibility space of computer games is the practice of cheating. Cheats allow players to instantly teleport their avatars from one level to the next, to make them lighter than air to gain a bird's eye view of the game world, and to enable them to walk through walls. In other words: cheats offer numerous ways of changing players' perception of gamespace.

In game culture, as well as in games research, cheating is often frowned upon, both in single-player and in multi-player settings. However, in order to appreciate the aesthetic qualities of cheating, one must understand that cheating encompasses a wide variety of practices, and is, in many cases, a misnomer. Quite often, all cheat codes do, is alter certain representational elements of the game world, for example by changing the weather in *Grand Theft Auto III* (2001). But even if cheats change the gameplay more profoundly, it is possible to regard them from an aesthetic perspective, as gameplay techniques that exploit the malleability of gamespace. Thus, cheats highlight the "topological constraints" (Aarseth 1997, p. 78) of gamespace, and how they are negotiated by the player.

This also draws attention to the fact that narrative and space are often deeply intertwined in games, and that taking a shortcut through gamespace may entail speeding up narrative progression, a phenomenon that Roland Barthes (1975) described as "tmesis", or skipping, in regard to literary texts. But skipping is not the only way in which cheats can alter, distort, or augment the perception of gamespace in 3D games. Next to the "god mode" cheats, which make player characters invincible, the "fly mode" and "noclip mode" cheats are among the most common cheats for first-person shooters.

While the former does not need much explanation, the latter requires an understanding of how gamespace is constructed in 3D computer games. In computer games, clipping refers to a technology that determines whether or not an object is "solid" or "permeable". Turning clipping off thus enables the player character to pass through walls, floors, and ceilings, often creating "broken" images of the game world, and allowing access to otherwise inaccessible areas.

The disorienting hall-of-mirrors effects that result from tampering with the way the in-game camera renders images has also been used as an aesthetic means by artists such as Brody Condon and Jodi, who have used first-person shooter technology to create original artworks, in which the representational layer is ripped off the games and reveals the code that lies beneath. Cheating can thus be regarded as a means of laying bare the technological foundations of gamespace, and of denaturalizing its representational aspects.

In this regard, cheating is quite similar to the phenomenon of emergent gameplay, a term that refers to play strategies that have not been foreseen by the designers. One of the most famous examples of emergent gameplay is the possibility to use mines to climb walls in *Deus Ex* (2000), a practice which become known as "proximity mine climbing." Allowing the player character to scale sheer walls,

proximity mine climbing brings with it a realization of the arbitrariness of the game's topological constraints, and an understanding of the discontinuity of gamespace.

In multiplayer games such as *Counter-Strike* (1999) or *Battlefield 1942* (2002), this change in the perception of space through cheats is even more pronounced. Through the use of special plug-ins developed by the player community, cheaters can see through walls ('wallhacks'), shoot other player characters without taking aim ('aimbots'), and embed topological information, such as the distance between themselves and other players, into the interface of the game. In massively multiplayer online games such as *EverQuest* (2003), programs like ShowEQ serve a similar function by displaying otherwise hidden information to the player who uses them. Therefore, cheats in online games can be seen as techniques of spatio-temporal manipulation that have a profound impact on how gamespace is perceived and negotiated not only by the player who uses them but by her opponents and teammates as well.

In multi-player first-person shooter games, cheating is actively discouraged by players and server providers. Nevertheless, cheating is a widespread practice in all kinds of multiplayer settings, from amateur deathmatches to professional e-sports tournaments. Aimbots are probably one of the most widespread cheating devices, and have been used at least since the publication of *Quake* (1996). When using an aimbot, all the player usually has to do is establish line of sight with an opponent and pull the trigger – the aimbot will automatically aim to kill the other player's character. The change in the perception of space is rather slight, but considering that the complex topology of gamespace is one of the means of inspiring a sense of paranoia and threat in the player, these cheats can help the player to feel more in control of space.

Wallhacks alter the perception of gamespace much more obviously. Implementing these cheats allows players to see and sometimes even shoot through walls, thus enabling them to kill opponents from a position where they cannot be seen. Similar to the noclip mode of single-player games, some wallhacks also enable the player character to pass through walls. However, the use of wallhacks can be very disorienting for the player. If all the walls in a level are partially transparent, it becomes very hard to judge one's own position in gamespace. More sophisticated wallhacks remedied this by causing the game engine to draw characters and other game entities such as guns and ammunition on top of the level's architecture.

Due to the way that cheats can change players' perception of space, many cheats are referred to as ESP (extra-sensory perception) cheats. This evocative term seems especially appropriate for multi-cheats that combine several cheat features in one package. These might include features such as 'distance ESP', which displays distances between player characters, 'weapon ESP', which identifies how opponents are armed, and 'player ESP' which replaces the textures of the opponent's character models by a bright color, thus making them much easier to identify against visually complex backgrounds.

The combination of several cheat features can change the perception of gamespace quite radically. Combined with manipulations considered legitimate by most players, such as turning off the details in the game client in order to reduce potential distractions, the interfaces of hardcore gamers can differ substantially from the standard interface of a game. Importantly, this spatial aesthetic is highly functional, despite the fact that it might look quite confusing to an outside observer. Cheating is not only a way of stripping gamespace of its representational qualities but also a way of revealing its functional architecture. From this perspective, cheating can be regarded as a way of deconstructing gamespace that allows us to gain insight into the way space is constructed in computer games.

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