The Uncanny Valley and Video Games

NAME

DigiPen Institute of Technology

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The uncanny valley appears numerous times in the media utilizing the technological advances that have occurred to make characters appear human, especially in video games. However, there is a point where the characters that lack human behavior or are very close in appearance to being human disturbs players.

The topic of the uncanny valley in video games brings up the discussion about stylized games compared to photo-realistic games. Stylized games are games that generally have a set art style that aren't trying to create realistic worlds. A few examples are *The World Ends With You*, *Kingdom Hearts*, and *Persona 3 Portable*. Photo-realistic games are games that focus on being as close to realistic as possible. A few examples are *Beyond: Two Souls*, *Heavy Rain*, and *Oblivion*.

The Uncanny Valley Defined

The basis of the uncanny valley is when something that is clearly not human is given human traits or qualities, it is generally considered cute or charming. However, if it is given more humanistic qualities, but isn't quite human, it becomes unsettling or unnerving to the audience. Once it gets past that point to where it becomes indistinguishable from humans, people generally don't find it revolting or creepy anymore. That part just before that something "becomes" human where people are uneasy about that human-like being or character is the uncanny valley.

On a graph comparing human likeness and familiarity, as human likeness increases, familiarity increases until it hits that one point where the subject is barely human and it is noticeable to the point where it is strange. Familiarity, at that point, plummets before gradually increasing as human likeness gets past the uncanny valley point. Once past the uncanny valley, familiarity increases from where it left off before dipping into the uncanny valley as human likeness increases until the subject can go without

notice in human society.

Stylization in Video Games

When it comes to making memorable, unique, and sometimes even endearing characters, stylization is the way to go. While proportions of the characters can be completely off, they are still memorable and sometimes even more human than actual people. On this side of the uncanny valley, there is more aesthetic diversity available without the constraints of making a human look and feel just right, as there is in photo-realistic games. Although, there is a fine line for making a character that is human enough to echo in a player without pushing it too far. With stylized games, the characters can be anything and still seem human, although players don't necessarily expect the characters to react the same way a real person would react.

In *The World Ends With You*, the characters have distinguishably smaller waists, but the style of the characters is what makes the game appealing to players. They are 2D graffiti-style drawings that feel more relatable to the player, despite the difference in world. This is mostly due to the main character, Neku, winding up in a alternate dimension of the world that can interact with people at certain shops. He is first introduced as the loner-type character who doesn't care for others at all. Some players find that they can relate, even if they aren't the loner-type.

When it comes to *Kingdom Hearts*, the main character, Sora, is human, despite the stylization. The characters in *Kingdom Hearts* have larger feet than they should have and, for some of them, gravity-defying hair. But it's the 3D cartoon look that gives the game its appeal to massive amounts of players. Sora seems very earnest in his need to complete his overarching quest to find and save Kairi while finding all of the keyholes in each world. Throughout the game, rather than trying to reason with an enemy, he pulls out his Keyblade and openly attacks. He also chases after Heartless that could lead

him into a trap without pausing to think about it. This shows that he is impulsive and reinforces the fact that he is still just a kid, making him endearing or even annoying to players due to his impulsiveness.

In *Persona 3 Portable*, the player is thrown right into all the chaos that is happening due to the storyline. What makes the main character so endearing, even though s/he is just a 2D drawing of a high school student, is the many different ways a player can play because the main character is the player. While characters are drawn, they feel more humanistic in that they have their own reason and drive that compels them to fight the Shadows. Each character is also relatable in a way when they open up to the player when trying to increase Social Rank.

Photo-Realism in Video Games

When it comes to making video games look stunning and amazing, photo-realism is the way to go. Everything looks so realistic and the characters are almost human. Although this is what the game industry is aiming for, it is not quite there yet and it is noticeable. In *Oblivion*, *Heavy Rain*, and *Beyond: Two Souls*, some of the characters look strange and act even stranger. In attempting to make a game more photo-realistic, the game is more likely to run headfirst into the uncanny valley by leaving out the smallest bit of detail that triggers it. There are many different components for making a photo-realistic character behave believably to the player since there are more expectations from the player. The player expects the photo-realistic character to look, behave, and move like a regular human.

With *Oblivion*, the NPCs' eyes look soulless and the lack of blinking doesn't help. Even more so is when an NPC tries to walk through a wall because of its programmed idle movement. Despite the technology available at the time to make the game look realistic, *Oblivion* appears to be geared towards the photo-realistic side of the uncanny valley. What makes it so unnerving is the unnatural

mannerisms with the NPCs. When talking to an NPC, sometimes there will be a disconnect between the NPC's mouth movement and what that NPC is saying. It is a bit unsettling.

In *Heavy Rain* along with *Beyond: Two Souls*, the seems off. In some instances, a character doesn't blink as much as the player could expect or previously blinked compared to past conversations, which gives the character a not-quite-human feel. This delves more into the uncanny valley through the use of image capturing software that allows the characters look more human and capture the little nuances that otherwise would go unnoticed. A peculiar occurrence is the occasional jerkiness of the player's character when walking around. Another noticeable occurrence is the lack of a water effect, for example, when Jodie or Ethan just get out of a shower, their hair doesn't even appear wet when it should. These can break the immersion of the game for some players, if they notice it. The detail for these two games is just right when it comes to how a character looks and feels and there is an obvious soul in the characters' eyes.

Through comparing stylized games and photo-realistic games, there is no clear choice saying that one side is wrong. Both have its own perks and downfalls. While one side may have more than another, both need to walk a thin line in order to execute them properly without tearing the player from the immersion of the game. These two sides create the uncanny valley between them, offering different ideals to strive for in the Gaming Industry. With the technological advances, the uncanny valley might become shallower as characters become more refined and photo-realistic, but that doesn't mean that stylized characters are going to vanish just yet. The uncanny valley will still be around, at least for another several years.

References

Portnow, James, (2013, February 27). *Extra Credits, Season 3, Episode 16 - The Uncanny Valley.*

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