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Poster: Affordances for Fun: applying affordances to video game interface design

Abstract: Video games can teach us a lot about building better interfaces, especially games that are played primarily in menu-style interfaces. This paper explores how these interface-based games can be better understood using the concept of affordances.

Résumé: Les jeux vidéo peuvent nous en apprendre beaucoup sur la conception d’interfaces améliorées, particulièrement les jeux qui se jouent par interfaces à menu. Cette communication explore comment ces jeux vidéo à interface peuvent nous offrir une meilleure compréhension du concept de capacité suggestive d’action.

While the academic community has been studying video games for some time, we lack a unified understanding of what makes video games so interesting to the millions who play them. We have many theories of play and game (Huizinga, Suites, Callois, etc.), and we have the beginnings of video game theory (Juul, Bogost, McGonigal, etc.), Countless journals, conferences, magazines, TV shows, and movies are wrestling with the prominence and cultural significance of video games. Certainly part of the reason they warrant so much attention is their huge economic impact. In the U.S. alone, video game software sales were nearly $14 billion in 2010 (USA Today, 2011). What do we really know about the popularity and importance of video games? Why are they such a popular pastime for so many people?

A casual glance at video game marketing material suggests that features such as graphics, sound, and story are important to players. Scholarly studies confirm a focus on these three features in designing games (for further discussion of feature-based video game studies, see Bouchard, 2010). However, there is a subset of games that have minimal graphics, very little story, and no music or sound effects (i.e. HoboWars, Torn City, and Urban Dead). What is it about these games that players find appealing? Can we identify a set of non-graphic, non-story, non-sound features that make these games compelling?

While all video games have some interface that allows the player to interact with the game, these minimalist games are played entirely within a menu- or website-style interface. For example, in Urban Dead, travel is not accomplished by piloting your avatar through a three-dimensional virtual world. Traveling to the Sawday Bank in Urban Dead is as simple as clicking an HTML button (see Figure 1). Because of their similarity to traditional non-game interfaces (like Microsoft Word or amazon.com), these minimalist games can be better understood using an interface design method: the concept of affordances.

I will explore these games using both J. J. Gibson’s concept of affordances (1979) and Donald Norman’s application of affordances to design (1998 and 2008). For a given object, affordances are the possible actions that the form of the object implies: a chair affords sitting, a button affords pushing, etc.. While Gibson provides a theoretical understanding of affordances that is
simple and flexible, Norman builds on the theory and places it in a practical context by applying it to design.

Through the lens of Norman’s and Gibson’s concepts of affordances, I will explore the affordances of these minimalist non-graphic, non-story, non-sound games. For example, I compare how time and avatar actions are managed by both minimalist and traditional video games to determine which style of game better affords a feeling of calmness and safety for the player. Is it possible that more basic games afford these reactions more powerfully? By expressing the features of these games in terms of their affordances, we can begin to see what the roots of the video game phenomenon are.

Figure 1: A screenshot from *Urban Dead*. Possible actions available to the player (attack, search the area) are displayed on the right side of the screen while options for navigating the game world (locations like Sawday Bank and Jermyn Lane) are located on the left side. Traveling to Sawday Bank is as simple as clicking the HTML button labelled “Sawday Bank” in the top left corner of the screenshot.

References


