A Comparative Analysis of Design and Motivation in Slot Machines and Video Games

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Introduction
The slot machines of today reflect an impressive design feat: translating cold win/loss probability into an unpredictable, whimsical, and engaging experience. A successful spin offers more than a quick payout; it’s an opportunity to experience hidden secrets within the machine: creative bonus games, rich animation and movie clips, even the chance to play simultaneously with other players on linked machines. Many of these characteristics are similar to design and gameplay elements of video games. Separate research into both slots and video games often reflect similar questions about design, motivation for play, and addiction. This poster presents a visual and theoretical analysis about the convergence of video game elements into slot machines.

Introduction

Video games come in many shapes and sizes (as do the players). Some games are designed for casual play on a portable device, other games present vast intricate worlds that demand significant time investment. This diversity makes a comprehensive theory of why people play video games difficult. Yee’s (2006) highly-cited, empirical study of player motivation in online social games establishes three specific motivations of play:

- **Immersion**: The opportunity to actively engage with the environments and characters the game provides and sometimes create your own meaningful in-game identity.
- **Achievement**: Exploration, discovery, and accomplishment with the game-world structure.
- **Social**: Collaborating, competing, or simply socializing with other people represented through the digital medium of the game.

These three are highly complimentary with each other. For example, accomplishing tasks or goals within games gains heightened significance in an immersive environment that can be shared, through avatars, with real people.

Implications for Research
As slot machines include more video game elements into their designs, research must follow suit. Studies have not yet fully measured the impact of these changes. Video games are popular with diverse demographic groups, including cultures that have been slow to warm to slot machines. A better understanding about how the interaction of slot design with video game design impacts player interest can provide important insight that fuels industry growth.

Like slots, video games also face scrutiny over their own addictive properties. Though some debate still exists, a consensus is building that certain video game structures can lead to addictive behavior among a minority of players. It is prudent to ask whether the introduction of immersive, achievement, and social elements to slot machines is having an impact on problem gambling and what effect that might have on treatment.

Above we see examples of immersion in both video games and slot machines. Note the similarities in graphical presentation and theme in the two sets of images presented. In video games, immersive elements serve to provide fundamental layers of meaning to what would otherwise be repetitive and dull actions. In slot machines, deeply immersive elements are often presented in an intermittent fashion, usually in conjunction with a winning spin. Bonus rounds, such as the two examples presented above, are often where immersive design elements are most significant. Bonus rounds trigger new animations, new sounds and music, and new gaming spaces that further the narrative theme of the machine and offer a temporary break from the basic reel spin. In slot machines that offer a social element, multiple players linked to a set of machines share the bonus experience in the same digitally visualized space.

Despite the similarities in style and appearance, it is important to recognize that slot machines are not turning into video games, but rather are converging certain styles and structures from video games with the probability-driven fundamentals of machine gambling. Most video game play combines a mixture of strategy, coordination, chance, and skill. In slot machines, no matter the digital appearance, the outcome is solely determined by probability. What is currently unclear is the extent to which players can distinguish this significant difference when playing video-game-styled slot machines.

Citation: