Improving User Engagement to Arcade Style Shooters through Color Matching

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Abstract

Arcade style shooters enjoyed popularity throughout the 1980s and 1990s. Color and pattern matching games such as Simon, Bop-It, and Twister were also popular during this time. While the popularity of both genres may have waned in recent years, the purchasing power and free time of the children who grew up in these decades has increased dramatically. Few video games have tried to capitalize on the combined potential of these genres.

In this paper, we present a coherent schema for combining aspects of pattern-matching and arcade style shooters from the late 1980s and early 1990s. Arcade replicas, and color matching games from this era are plentiful, but most games which amalgamate the two concepts are based on rhythm and music (e.g. Rock Band, Frets on Fire, etc.) We further assess the balance of game difficulty necessary to maintain user engagement. We report qualitative results of players using a purpose-built color matching arcade style shooters built in Python. Research was completed using small focus groups.

Our results demonstrate that an engaging arcade-style experience is possible when combined with basic color matching. However, we present evidence suggesting that the action in such a game must be well-balanced to avoid becoming overly-difficult.

References

Austin, M. (2016). *Music Video Games: Performance, Politics, and Play.* Approaches to Digital Game Studies. Bloomsbury Publishing.