

Title	データ駆動型ゲーム開発—ビデオゲームを題材としたプラットフォーム公開,コンテンツ生成,経験駆動型デザインに関する分析
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Abstract

The video game industry is highly competitive and rapidly growing, making it crucial for game developers to conduct thorough market research, gather feedback from players, and engage in effective communication with them to develop successful and engaging games. As the market becomes more competitive, it becomes increasingly difficult for game developers to create successful games that stand out in such a crowded field. To achieve success, game developers need to conduct extensive market research to understand the preferences and interests of their target audience. They also need to gather feedback from players during and after the development process, using strategies such as early access releases to receive feedback and improve their games. Historically, game development has not been data-driven, but as the game industry matures, data is becoming an essential and integral part of the game development life cycle to support decision-making across all stages of the process. The uses of data in-game development can be split into two stages: creation and optimization. The creation stage includes concepting, pre-production, and production stages, while the optimization stage includes testing or beta testing, launch, and post-production or live operation stages.

The main objective of this dissertation is to gain a deeper understanding of how game refinement and motion-in-mind theories can be applied in data-driven game development, and how they can be used to measure the entertainment aspect and content quality of video games, which can be useful for game developers and researchers to create better and more engaging video games. To achieve it, we are guided by two purposes: (1) To measure the entertainment aspect of video games from their steam storefront data and to improve the game's visibility on the Steam Platform?, and (2) To define the indicator to measure content quality (difficulty) and player performance in FlowFree, To explore how the value of this indicator differ based on player type. This dissertation provide insights for game developers to create better and more engaging video games as well as providing a new perspective on data-driven approach for game development through the lens of motion-in-mind.

Keywords: Data-Driven, Game Development Life Cycle, Motion-in-Mind, Procedural Content Generation, Puzzle Solver