

Getting in Touch with Gaming: How Haptic Feedback of Game Controllers alter Experience and Performance

Thema:

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Status:

[abgeschlossen](#)

angelegt:

2023-05-09

Antrittsvortrag:

2023-09-11

Abgabe:

2023-09-30

Hintergrund

The gaming industry has experienced significant growth in recent years, with billions of players around the world. Modern game controllers, such as those used by popular gaming systems like PlayStation and Xbox, incorporate touch-based interaction and haptic feedback to enhance players' gaming experience. Especially, the new Generation of PlayStation 5 Game Pads reached new levels of haptic feedback technology. While this feature is widely used in the gaming industry, there is currently a lack of scientific research that systematically evaluates the impact of haptic feedback on gaming performance and experience.

Zielsetzung der Arbeit

The goal of this research is to investigate in a mixed-methods approach how haptic feedback of game controllers affect gaming performance and experience. Specifically, this work aims to identify the extent to which these features influence players' accuracy, reaction time, and overall performance. Additionally, the research aims to explore the subjective experience of players when using game controllers with touch-based interaction and haptic feedback. By evaluating the effects of these features on both objective and subjective measures of performance and experience, this research will provide a comprehensive understanding of the impact of haptic feedback on gaming. Ultimately, this knowledge could inform the design of more effective game controllers and enhance the overall gaming experience for players.

Konkrete Aufgaben

1. Define Research Questions: „How much do haptic feedback features of game pads impact gaming experience and player performance?“
2. Conduct Literature Review
3. Design Game Prototypes or haptic enhancement mods
4. Design new or development of new applications for haptic feedback mechanisms
5. Conduct Controlled User Study
6. Collect Data: Collect data during the study using a mix of quantitative and qualitative methods. Quantitative data can be gathered from performance metrics, such as response time and accuracy, while qualitative data can be obtained from participants' self-reported experiences and feedback.
7. Collect, Analyze, Interpret Data

Erwartete Vorkenntnisse

Keine

Weiterführende Quellen

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Last update: **17.10.2023 15:02**



