‘Died on First Try, 10/10 Would Recommend LMAO’: Studying the Appreciation of Historical Digital Games about WWII via Text Mining Methods

Keywords
Historical digital games, World War II, Player appreciation, Text mining, Steam

EXTENDED ABSTRACT

Over the past few years, game scholars have increasingly paid attention to how players experience, learn from and reflect on playing historical digital games. In her study on the informal learning potential of historical games, Sian Beavers highlights how players appreciate the opportunity that immersion via gaming offer them to engage in historical reenactment and perspective taking, while she also shows that players remain skeptical about the historical authenticity of games (Beavers 2020). In their study on perceived realism in the games from the *Assassin’s Creed*-series (Ubisoft Montreal et al., 2007-present), Alexander Vandewalle, Rowan Daneels, Emma Simons and Steven Malliet highlight how especially perceptual pervasiveness, i.e. the absorbing qualities of the graphics and audio of a game, and character involvement, i.e. the extent to which players consider their game avatar to be an extension of their real-world selves, were viewed as major predictors of enjoyment in historical games such as *Assassin’s Creed* (Vandewalle et al. 2022). And in a study on how players reflect on engaging with the Holocaust via gameplay, Van den Heede demonstrates how players experience varying forms of gaming fever, i.e. experiences of discomfort when playing games that include depictions of sensitive and contentious pasts in a given historical culture (Van den Heede, 2023).

Most of these and other available studies have either adopted qualitative methods such as focus groups (Van den Heede, 2023) or quantitative survey methods (Beavers 2020; Vandewalle et al. 2022). As such, large bodies of machine readable online data produced by players themselves have remained underexplored to study this topic. In this paper, I therefore build on these previous studies on the appreciation of digital games to study which elements of appreciation of historical games can be identified in player reviews published on Steam, the digital storefront and distribution platform that accounts for 50% to 70% of all pc gaming downloads globally (e.g., Elad 2022). I do so by adopting a multi-step text mining approach with the statistical programming language R. Text mining can be broadly defined as an approach whereby one tries to derive previously unknown information patterns from large corpora of textual data (e.g., Ignatow and Mihalcea 2016). I take the following steps in my approach. First, I use html web scraping, an automated approach to online data gathering through the analysis of a web page’s html-code (e.g., Munzert et al. 2015), to compile a corpus of player reviews related to the 10 most popular games tagged as ‘World War II’-games on Steam (Valve Corporation 2022). Next, I use topic modeling, an unsupervised machine learning technique for identifying hidden semantic structures or ‘topics’ in a corpus of textual data (e.g., Silge and Robinson 2017, 85-104). Based

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on these operations, I provide a bottom-up classification of what players who write Steam reviews appreciate the most about playing historical digital games, in particular about World War II. In doing so, I also critically reflect on the strengths and limitations of the adopted method, for example concerning the analysis of ironic/sarcastic language and the use of non-textual expressions.

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