Flow, Boredom, Idleness. The Relation between the Subjective Passage of Time and the Experience of Video Games

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ABSTRACT

In this presentation, I will explore the relation between the subjective passage of time and our experience of video games in the context of slow play. Time does not pass at a constant speed in our experience. Depending on different factors, time can seem to pass faster or more slowly, as described by the attentional-gate model (Zakay & Block 1996). Several studies have shown that playing video games typically leads to an acceleration of the passage of time (Wood et al. 2007, Rau et al. 2006, Luthman et al. 2009,Tobin & Grondin 2009, Tobin et al. 2010, Bisson et al. 2012, Bisson & Grondin 2013). This is often associated with the state of flow, which is characterized, among other things, by deep concentration, a sense of control, and the loss of the senses of self and time (Csikszentmihalyi 2009). Both game designers and game scholars have pointed out on several occasions that video games are effective at inducing flow (Voiskounsky et al. 2004, Salen & Zimmerman 2003, Juul 2005, Schell 2008, Alvarez Igarzábal 2019). This presentation will focus first on a series of studies I conducted with colleagues for the VIRTUALTIMES project that found quantitative evidence for the acceleration and deceleration of the passage of time in video games and virtual environments. With the first two studies (Rutrecht et al. 2021, Khoshnoud et al. 2022) we found evidence for the positive correlation of an accelerated passage of time and higher states of flow while playing the video game *Thumper* (Drool 2016). With the third study, we focused on the opposite effect, the slowing down of the subjective passage of time in video games, which has not been explored as much in the literature. This study showed that boredom induced in a virtual reality waiting room can lead to a deceleration of the subjective passage of time (Alvarez Igarzábal et al. 2021). This effect can be even stronger than the effect observed in an equivalent real-life waiting room. The common understanding is thus that the acceleration of the passage of time is associated with positive valence (fun, enjoyment), whereas the slowing down of the passage of time is associated with negative valence (boredom, impatience). Some scholars, like Leino (2018) and Möring (2014), have written in defense of boredom, using examples of games like *Euro Truck Simulator 2* (SCS Software 2012) and *Proteus* (Curve Games 2013). These games and others like *Red Dead Redemption 2* (Rockstar Studios 2018) (see Vanderhoef & Payne 2022) or *Animal Crossing: New Horizons* (Nintendo EPD 2020) are part of a somewhat recent movement that has been called "slow games" (Ganszyniec 2019) or "slow play" (Fizek 2022). This presentation aims to contribute to this discourse from the point of view of time perception by finally arguing that it is not boredom, but a third possibility that characterizes the aesthetics of slow play. Ehret and coworkers (2020) have called this state *idleness*, and found the

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first empirical evidence for it. This state of idleness is characterized by a deceleration of the passage of time in experience that, instead of producing impatience or boredom, is accompanied by a sense of enjoyment—that is, positive valence. Following the recent discourse on slow play, this presentation will argue that idleness is a significant mental state within this mode of play.

Keywords

Time perception, passage of time, boredom, flow, idleness, slow play, slow games

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