VICAROIUS NOSTALGIA? PLAYING RETROGAMES FOSTERS AN APPRECIATION FOR GAMING HISTORY

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Introduction
Video games have been a viable and vibrant sociocultural force in Internet culture and entertainment for generations. Once marketed as mostly for young boys (Kline et al, 2003; Lien, 2013; Condis & Morrissette, 2023), gameplay is common across myriad demographic categories. In the United States, more than 75% of gamers are over the age of 18, split evenly across binary gender identities (ESA, 2022).

As gamers age, so does an interest in the history of video games. Second-hand retrogaming markets allow older players to re-engage with antiquated gaming technologies (Bischoff and Pereira, 2022). Retrogames are commonly remixed and rereleased for newer consoles (Heineman, 2014), along with fan-created reproductions of cherished franchises (Iantorno, 2019). Alongside this is the sustained popularity of retrogaming aesthetics, such as pixel art (Makai, 2018) and chip-tuning (Driscoll & Diaz, 2009).

Relevant to retrogames is nostalgia—bittersweet-but-positive recollections of bygone times (Sedikides et al, 2015) further divided into personal nostalgia (i.e., for one's past experiences) and historical nostalgia (i.e., for history that predate an individual; Natterer, 2014). Historical nostalgia is especially relevant as it might explain the appeal of retrogames to younger audiences (Bowman & Wulf, 2022). Younger gamers might

"take-up" retrogames as touchstones of gaming culture, for example to develop a deeper knowledge of the medium (i.e., gamer capital: Consalvo, 2007; Mora-Cantallops et al., 2021), or to engage with media histories broadly (see Kalinina, 2016).

The focus of the current study was to understand if and how players discussed historical nostalgia when playing a focal retrogame. In prior research, Bowman et al. (2022) found that after playing *Super Mario Bros* emulated on an NES Classic, younger players without any prior experience had greater levels of historical nostalgia and discussed an appreciation for how video games were very different for "past generations" (e.g., parents and older siblings). A limitation of that study was the use of a widely popular video game that triggered high levels of nostalgia among all study participants— including those merely watching gameplay. To correct this, we used a less popular retrogame emblematic of "Beat 'em Up" video games popular in the 1990s, playing with either original or contemporary game controllers (given the tactile nature of video game nostalgia; see Heineman, 2014). We posed two research questions: **RQ1**: "What themes emerge related to nostalgia from playing a retrogame?" and **RQ2**: "Did themes differ as a function of controller used for gameplay?"

Methods
The current analysis is part of a larger project on retrogaming (Bowman et al., 2023). Individuals (N = 105, M_{age} = 21.02, SD = 4.37) from a large public university in the southwestern United States were invited to play *Double Dragon II* for 10 minutes, with random assignment to either an original-design NES controller (n = 55) or a modern Wii Classic Pro controller (n = 46). Participants included n = 60 women, n = 49 men, and n = 2 non-binary individuals, with n = 59 (58.4%) Caucasian, n = 23 (22.8%) Hispanic, and <6% ($n \leq$ 6) other ethnicities (via open-ended self-report).

After playing, participants were asked to "elaborate on any other thoughts and feelings that you might have felt (such as feelings of nostalgia) while playing the game." Average word count per response was M = 42.4 words (SD = 29.9), ranging from 6 to 226 words. Length did not differ by controller condition: retro NES controller, M = 48.9 words (SD = 33.4); Wii Classic Pro controller, M = 40.9 words (SD = 26.4), Welch's t(95) = 1.29, p = .202.

We used a modified version of Braun and Clarke's (2006) thematic analysis, in which the lead author (with an emic perspective related to retrogaming and nostalgia scholarship; Harris, 1976) did an initial coding, and the second author (etic perspective) independently reviewed and confirmed the veracity of codes. Codes were promoted to themes if they were mentioned by at least 10% of participants (n = 10).

Results and Discussion
In answering RQ1, eight themes emerged from our analysis, clustered into three groups: retrogames as unique experiences, retrogames and important others, and retrogames and the self (Table 1). Critically these themes did not vary between controller conditions (replicating Bowman et al., 2022), so no further analysis is dedicated to RQ2.

Table 1.
Emergent themes from participants discussing their experience with the retrogame.

Cluster	Theme (Frequency)	Definition
Retrogames as unique experiences		
	Retrogames (25)	Broad references to the characteristics of "older" video games, usually made as an implicit contrast to contemporary games.
	Simplistic Play (24)	Comments about the game as being "easy" compared to modern games.
	Gaming History (18)	References or thoughts about older video games, or the evolution of video gaming.
	Challenging (10)	Mentions of gameplay difficulty, often in contrast to modern games.
Retrogames and important others		
	Friends and Family (23)	References to important relational others (often parents and older siblings).
	Games "They" Played (18)	References to "others" who probably played these games in the past.
Retrogames and the self		
	Gamer Self-Identity (22)	Notes about the participant's own history playing video games.
	Good ol' Days (12)	Recollections of "easier times" in the past, broadly.

Regarding *retrogames as unique experiences*, we see a recognition that retrogames inform and construct an understanding of the history of the medium. Broad references to retrogames as a genre marked a perceived uniqueness, for example the game as having an "old-school feel" similar to other "platformers and beat-em [up] games," the "music and sound effects sounded very nostalgic," and the game had "[an] 80s vibe." Retrogames were engaged as artifacts from of the medium's history (e.g., "This game made me ponder about the era differences between now and when this game was first invented" and "I was thinking mostly about how far games have come"). Some participants focused more on the gameplay elements of retrogames as paradoxically simpler (e.g., "old games are easier and less complex" and several references to a general lack of detailed narrative) but also being very difficult to play (e.g., "the boss is really hard to defeat" and references to the "game over" screen after losing).

Regarding *retrogaming and important others*, we see a theme repeated in nostalgia research (see Wulf et al., 2020; Bowman & Wulf, 2022) in which nostalgia invokes memories of self-referential others (e.g., "it would be real treat to [play this game] with my family" and "I would play [similar games] with [various family members named in several replies]"). These data inform the value of video games in family bonding and intergenerational communication (Martins et al., 2017; Wang et al. 2018). Especially notable for the study of retrogames and historical nostalgia was the explicit recognition of the games that *others* played, where participants thought "about game system [from] when my mom was younger and before I was born"—some even presuming that the experience would have been nostalgic for "them" (e.g., parents and older siblings).

Finally, we saw a cluster of themes about *retrogaming and the self* that reinforced engaging with retrogaming as part of an autobiographical experience. Many participants recalled their first gaming experiences, such as "I was taught how to play Super Mario Bros. at three years old, so a lot of my childhood is devoted to [retrogames])" and "it reminded me of how much I wanted to be good at games." Others had broader memories , with recollections simpler times where "all we had to worry about was … how to cure boredom." One participant noted that retrogames were representative of their experiences traveling to and from Mexico during a time when "there was no worry in the world, because [the journey was] not as dangerous [as it is today]."

Conclusion
Our findings corroborate past research indicating that nostalgic experiences were characterized by high self-salience and as well as recollections of social connectedness. We also found unique aspects of historical nostalgia from retrogames, from a contextualization of retrogames as markers in gaming history to a feeling of what we term *vicarious nostalgia*—that a player's nostalgia may be associated with others' presumed experiences with retrogames.

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