

Exploring Continuity in Games: Analog, Digital and Across Mediums

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Abstract

Game experiences can span multiple play sessions, which may evoke a sense of continuity. Yet, it is unclear what defines a continuous gaming experience across sessions, what elements contribute to that perception, and its effects on the player experience. In this work, first, we investigate how the sense of continuity is perceived in digital and analog games. Second, we explore how players believe this sense can be achieved in experiences that transition between digital and analog sessions (i.e. transmedial play). Through an interview study with 12 gamers, we found that the sense of continuity extends beyond game design elements, as it also stems from the internal perception of skill improvement and play context. Our findings show that transmedial continuous experiences hold potential to create a deeper connection with a game by offering increased flexibility and opportunities to further engage with its narrative and gameplay.

CCS Concepts

• **Human-centered computing** → *Empirical studies in interaction design*; • **Applied computing** → *Computer games*.

Keywords

Continuity, Continuous Play, Transmedial Play, Analog Games, Digital Games

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1 Introduction

Games are frequently designed to engage players over time or are intentionally structured to require more than a single game session to complete [4]. Past work on analog games has mentioned this sense of continuity in association with campaign scenarios [3, 20] and miniature painting between tabletop sessions [8, 15]. In digital games, significant work has been dedicated to understand player engagement [1, 6] during play sessions. However, less attention has been paid to the processes in-between of disengagement, re-engagement [2] and continuity in games.

Conversely, previous studies [4, 14, 22] have explored how play-related activities can shift between analog and digital formats and how they can intersect. For instance, the game *Skylanders* [5] includes physical figures that transfer characters into the digital game but can also be played outside digital sessions [22].

Past work has suggested that some players may experience a sense of continuity (associated with theme) when playing tabletop and digital games from the same franchise [12] or using digital platforms as an auxiliary tool to generate scenarios for a board game [14, 20]. Stemasov et al. [20] further investigate how the digital medium can be used to personalize analog play experiences (e.g., by customizing characters with a 3D printing pen) which persist over multiple sessions.

With this work, we aim to explore how players perceive a sense of continuity when playing a game over multiple sessions. Past work suggests there are benefits in this sense of continuous play (e.g., long-term engagement) [12]. Yet, this aspect of the player experience is still not fully captured in research—it is not completely known what elements contribute to this sense or what trade-offs it can have in players' experiences. Importantly, while digital and analog gaming mediums share similarities, they offer distinct advantages due to their different modalities of play [16, 17, 23]. As such, we aim to understand how a sense of continuous play differs—or aligns—in the digital and analog medium and specific considerations that emerge relevant in these settings. Additionally, building on previous works [12–14, 22] and as a prequel to broader research, we explore how a sense of continuity can be achieved in a *transmedial play* scenario [14, 21]—a term we will use throughout this paper to define an experience where players can engage with a game through either analog and digital means, while still feeling

as though they are continuing the same play experience. We aimed to answer the following research questions (RQ):

- **RQ1:** What makes players feel continuity between gaming sessions, and what are its tradeoffs?
- **RQ2:** How can continuous gaming experiences be achieved in a transmedial play setting?

Based on individual interviews with 12 participants, our findings suggest that players value games that can create a sense of continuous play—continuity allows players to form a deeper connection with the game, especially when they shape the game world across multiple sessions. When the experience is shared with other players, it can create some sense of ownership, as players feel like they are shaping a path together in the game world. We identified trade-offs specific to each medium, such as the difficulty of saving progress in analog games and perceiving continuity through asynchronous contributions in digital games. Further, participants welcomed continuity in transmedial settings, emphasizing the increased flexibility and immersion when offering multiple ways to engage and progress in a single continuous experience.

2 Method

We conducted semi-structured interviews with volunteers who regularly play or have played both analog and digital games. All interviews were conducted by a single researcher, occasionally with the assistance of a second researcher. Prior to the interview, participants provided informed consent and completed a demographic questionnaire. The interviews explored topics such as continuity in digital and analog gaming, in both single-player and multiplayer scenarios, as well as the benefits of continuity and its impact on the overall gaming experience. Participants were also encouraged to reflect on specific elements that contributed to a sense of continuity between game sessions and whether they experienced any interruptions in that continuity. Additionally, we asked participants about past experiences of continuity when transitioning between mediums and suggestions on how that could be achieved by design.

Participant	Gender	Age	DF	AF
P1 (R)	M	31	Weekly	Monthly
P2 (R)	F	34	Monthly	Weekly
P3 (R)	M	42	Weekly	Monthly
P4 (R)	M	45	Monthly	Weekly
P5 (R)	M	37	Monthly	Monthly
P6 (R)	M	24	Daily	Monthly
P7 (P)	M	26	Weekly	Monthly
P8 (R)	M	40	Daily	Weekly
P9 (R)	M	29	Daily	Monthly
P10 (P)	M	23	Daily	Monthly
P11 (P)	F	24	Monthly	Monthly
P12 (R)	F	24	Weekly	Monthly

Table 1: Details of the participants, interviewed either remotely (R) or in-person (P), including gender, age, digital gaming frequency (DF) and analog gaming frequency (AF).

2.1 Participants

We recruited 12 participants (9M, 3F), aged 23-45 ($M=31.6$, $SD=7.9$) [Table 1]. Recruitment was done through open calls shared in gaming communities (e.g., Telegram groups) and through word of mouth. The interviews averaged 40 minutes and were done remotely ($n=9$) or in-person ($n=3$) at our university.

2.2 Data Collection and Analysis

We adopted the codebook thematic analysis approach outlined by Braun and Clarke [9]. As we had pre-established research questions, the process began with generating codes deductively, informed by those questions (e.g., Benefits of continuity). The interview’s audio recordings were transcribed, and subsequently read and reread to allow for data familiarization. We then started inductively generating new codes. Two authors were involved in this process, first coding a set of three interviews independently and then meeting to discuss their initial codes. We then refined these codes throughout multiple meetings adding, merging and removing codes as needed. Then, the first author used the final codebook¹ to code all transcripts. Following this, we identified and refined themes based on recurring patterns in the data. We had a final meeting with the whole team to discuss, refine and name these themes.

3 Findings

We now present the themes, supported by participant quotes, highlighting key differences in continuity between *analog* and *digital* play settings. We also explore participants’ speculative insights for continuous *transmedial* play scenarios.

3.1 Continuity as in-game progression

For all participants, continuity emerges with some kind of progression over sessions, which might occur in terms of narrative but also in the ways the gameplay, the world and their character evolve. Progression happens as players unlock features such as new abilities or levels with unique challenges. *Digital* role-playing games were repeatedly mentioned by participants as good examples of this: “*You are playing the game and essentially you are building, let’s say, your character [...] that’s what creates the sense of continuity*” (P6). In *analog* games (especially in legacy board games), progression happens as players gain access to new physical components (e.g., boxes that include new cards and pieces) or alter existing ones to represent these changes (e.g., by applying stickers to the rulebook or cards). Challenges and quests that extended across multiple sessions were particularly considered to support continuous play: “*[In Stardew Valley], to complete a quest, you have to play multiple sessions to, for example, collect the required items [...] Every time I start the game, the first thing I think is like ‘what was I doing?’*” (P2).

In line with this, participants suggested that in a *transmedial* game, both mediums should progress in some interconnected way. Some saw benefits in having a way to continue the exact same gameplay across mediums: “*Take a photo or something [...] and I can continue the game digitally using the board game’s rules*” (P4). Others favored different gameplay in each medium, with one unlocking content for the other (e.g., achieving something digitally

¹Codebook. https://osf.io/r74z2/?view_only=946959daac61467dac9719fc8a22bc81

unlocks new cards for analog sessions) or advancing the narrative in different ways, P9 illustrated this with an example: “*For example, in Code Lyoko [an animated series], in the analog session you could play in the school setting and in the digital you could be fighting XANA*” (P9).

3.1.1 Losing progress and breaks in continuity. Expectedly, losing progress in a game (e.g., server wipes in digital games) was associated with breaking the sense of continuity. Yet, as explained by participants, even when part of the progress is lost, a sense of continuity can remain. For example, P1 described how in the board game Oath the progress is reset but one session influences the next by adding new cards or switching player roles. Similarly, P9 noted that in the roguelike digital game Hades, while abilities and difficulty reset with each run, the narrative evolves, which maintains a sense of continuity. Conversely, progression elements may not always make an experience feel continuous. P4 explained that while digital racing games unlock new cars after races, this feels secondary, noting that “*the psychological effect of continuity isn’t important in that type of game*” (P4).

Further, while discovering new content was an exciting aspect of continuous play for most participants, some mentioned that once this novelty ends, it can lead to a diminished sense of continuity, as gameplay may become too monotonous: “*It goes on for so long, and the game doesn’t motivate you to play further or introduce new things... It starts being too repetitive*” (P11). This may also happen and be especially frustrating when players reach a “*roadblock*” (P6) with their decisions resulting in irreversible changes to gameplay or prevent them from completing a level or scenario.

In that regard, P11 highlighted a positive feature of *digital* games, noting that players can create new saves to refresh their experience and explore parallel continuous progress within the same game.

Some participants noted that breaks in the sense of continuity may not be completely negative, as they can be purposefully done to offer players choices in progression (e.g., market phase to buy upgraded weapons) or introduce a new perspective of the narrative: “*The narrative is converging from the original point [...] if it happens for me it’s fulfilling*” (P7).

3.2 Embarking on a journey: Connection with the game and others

Participants pointed out that in some games (particularly *digital* games), continuity may emerge from a predefined narrative, while in others, players have greater freedom to choose their own goals and path, with their actions directly influencing the game’s outcome: “*Games where we have an open world... I end up creating my own continuity in the game*” (P1). Some participants shared that a dynamic world that is continuously shaped by their interactions makes the journey feel personal and unique, especially when they can share this journey with other players: “*Having this journey in the game and with people [...] It’s almost like the feeling of walking a trail together with some friends*” (P5). When playing with others, many noted that the sense of continuity became associated not only with the game itself but also with the players who shared the experience: “*It feels like you are interacting with friends, and feeling that we are progressing together, or experiencing the game together. In the end, we’re creating memories together*” (P6).

Participants expressed a sense of achievement when they can see the impact of their actions from past sessions, such as when seeing their buildings in a *digital* world or stickers in an map that show they completed that scenario in an analog game: “*Sometimes its motivational that feeling of accomplishment [...] the feeling that you are progressing somewhere*” (P6). Anticipating the next session was also a common topic between participants, and was highlighted as one important aspect of continuity: “*For me it’s one of the most important aspects of continuity between sessions [...] the pleasure of discovery [...] the excitement and the anticipation of it*” (P3). Participants associated this feeling with their disengagement process, as ending a session on a cliffhanger may motivate them to anticipate the next game sessions and leave players reflecting on the game.

Participants mentioned how *transmedial* play could enrich the journey of a continuous experience, by allowing them to explore different “*scenarios and new realities inside the game*” (P8), while leveraging the best of each medium: “*There are parts in gameplay which would be more fun if done digitally [...] if he wanted something more relaxing, looking closely at the board [...] he would play those parts of the game in analog*” (P4). One participant highlighted how each medium could retroactively remind players of moments from previous sessions: “*Explicit events in the analog could be referenced in the digital*” (P7).

3.3 The role of self in continuity: Mastery and social dynamics

Participants also mentioned how acquiring knowledge and mastering a certain game across multiple sessions also contribute to a sense of continuity: “*We reflect on strategies other players followed or what leaders or characters [...] and generally that experience of knowing the impact of certain characters in the game [...] is what gives me continuity. Understanding its impact gives me a sense of continuity*” (P2). P6 highlighted that, even when in-game progression is lost, players’ skill and knowledge are always carried over to the next session.

Some participants noted that playing with a consistent group of friends fostered inside jokes, unique dynamics, and predictable behavior patterns, creating a meta around the game that translated into continuity: “*The meta you create around the game, the jokes... make these experiences much more interesting*” (P3). A shared improvement in the game through multiple sessions also allows players to discuss high level strategies and theorycraft: “*You are playing with someone who knows the rules and has played the game before [...] being able to talk about it helps a lot in feeling continuity*” (P2). Participants suggested that, in *transmedial* play, the digital part could aggregate information from both the digital and analog sessions to present insights to players, enabling them to reflect on and “*digest*” (P2) what occurred during gameplay.

Many participants noted that restarting the game at an easier difficulty to accommodate new players disrupts the sense of continuity. Some also mentioned that when a player’s expertise lags behind, it can break continuity, as they may feel uncomfortable discussing strategies or struggle to progress at the same pace as before. Players who progress more slowly in a continuous experience may encounter unfamiliar game elements unlocked by others with greater expertise, making them feel disconnected: “*It seems*

like those things are not mine [...] It's like 'look, now we're at level 100, now you have level 100 equipment" (P11). Participants emphasized that in *transmedial* play, group progression should be balanced to prevent such discrepancies, as players may want to continue individually (e.g., in digital form) while preserving the integrity of group progression.

3.4 The burden of commitment: Fatigue and availability

Despite the recognized benefits, participants identified drawbacks mostly related to commitment and availability. P1 emphasized that in some digital games, players may feel like they are missing something when not playing: "The disadvantage is almost like... the fear of missing out in that we almost feel like we need to be constantly connected" (P1). Also, continuous gaming experiences may take a very long time to complete, leading them to choose and try other games: "Beyond the dedication you need to put in these games... They require a lot of time to complete... You end up choosing other games to play" (P3). Specifically for *analog* gaming, a participant mentioned that, to finish long games, he has to maintain the components set up in a dedicated space, which is burdensome: "I play war games which take 50, 60... 70 hours to play... The game has to stay in place somewhere while its not completed" (P4). This sense of continuity for players often translates into a game that is felt has not been completed and this sense of the need to *finishing* it can have negative impacts on the willingness to play and the satisfaction of each play session.

For some participants, finding time to regularly play digital and analog games—especially the same game with the same group across multiple sessions—can be challenging, which exacerbates the issue. P3 highlighted that, if for some reason (e.g., unavailability) the game ends up being unfinished, he would feel like he "wasted [his] time". Some participants highlighted the benefit of *transmedial* play in offering greater flexibility, as it could allow players to follow more convenient schedules through digital play and still provide the opportunity to meet in person: "It's easier for people to play together... Because we can play in analog when we are together and in the digital when we cannot meet" (P11). This flexibility was especially appreciated by P12, who has distant family and friends and enjoys playing board games with them during their visits.

3.5 Lost in transition: Challenges of resuming play

In most *digital* games, progress is saved automatically, but in *analog* games, maintaining continuity can be more challenging. P1 noted that some *analog* games include features, such as containers for holding components, to help preserve the game state. However, this is not the case for all games, which can lead to negative outcomes: "I setup the game in a table, and it stayed there for weeks... So after a year of not playing I sold it" (P8). Most participants expressed that if too much time passed between game sessions, they would forget the rules, story, and even strategies from the previous session, which could disrupt continuity: "Continuity is like reading a book in which if you pause for a long time you either have to start reading from the beginning or move on to another book" (P4). Many participants

mentioned that the main reason for a large gap between game sessions was "the need to coordinate players' schedules" (P3).

Some games provide a way to help players recall previous sessions. P7 mentioned that in the analog role-playing game *Dungeons and Dragons*, the game master typically "provides a brief recap at the start of each session to ensure all players are on the same page". Similarly, P4 mentioned that in longer *analog* games players usually rely on taking a picture or leaving physical clues (e.g., writing notes) to remember where they left off during the gameplay. P10 suggested that *digital* games could benefit from a recap feature for players who have not played in a while, helping them to "refresh their memory": "I wish digital games had this kind of feature that could remind you of what you were doing and to catch you up... If you spend a long time without playing..." (P10).

Some *digital* games offer the possibility for players to progress and contribute asynchronously to the gameplay (e.g., open servers, digital versions of board games). In these, it might happen that the game progresses without the player, causing returning players to feel confused or out of place. Some participants noted that this may also happen in a *transmedial* setting, where the experience can progress in analog or digital sessions, without all players necessarily being present. P10 suggested that to prevent this, the *transmedial* game experience could include an app to notify players about ongoing events: "I think everyone that was playing the game should have an app which informs you about what is going on" (P10).

3.6 Keeping the flow: Continuity out of session

Some participants also mentioned activities that enabled the sense of continuity outside of the game. P5 stated how logging their *analog* game sessions in an app and looking back at that history of games felt like continuity: "You can log the result of the game and look at it and see this player won x games..., and see stats from a specific player and game" (P5). P10 noted that in *digital* games, it is common for players to engage in character building outside of gameplay (e.g., by researching strategies to enhance their character's strength): "I usually always check what people say about a certain build... To get a second opinion about my build" (P10). Continuity may also emerge from engaging with other players outside of the game, as they remember and talk about each other's experience with the game: "I create this narrative... And then I also talk about it with other people that played the same game" (P2).

4 Discussion and conclusion

In this section, we discuss the elements that contribute to a sense of continuity mentioned by participants in analog and digital play, its trade-offs in the player experience (RQ1), and considerations for *transmedial* play continuity (RQ2).

4.1 Elements of continuity, tradeoffs and opportunities

All participants referred to **progression** to be a key element to the sense of continuity, whether building up the **narrative**, **world**, or **characters** over multiple sessions. Moreover, time-demanding goals (which span multiple sessions) and indicators of progress (e.g., a level map) were seen as an important vehicle for continuity, especially when starting a new session after some time, and in

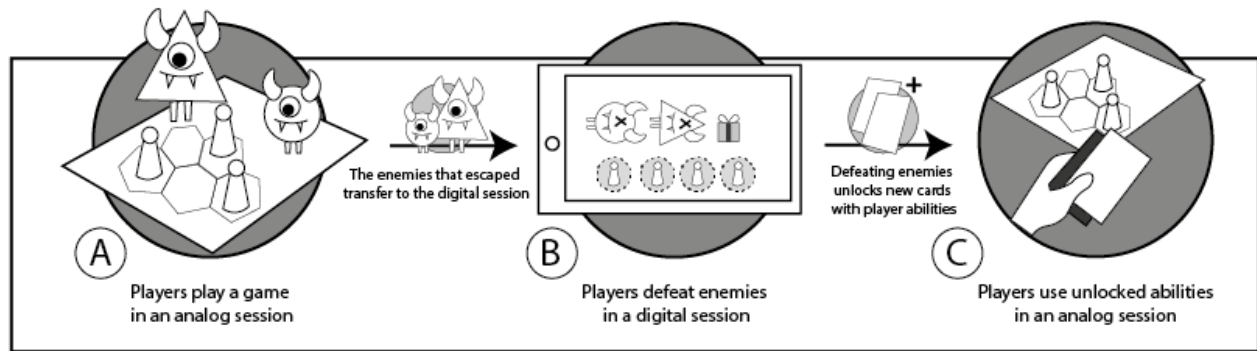


Figure 1: Example of a continuous transmedial play experience

providing players with a sense of accomplishment. Our findings suggest that continuity associated with in-game progression in both digital and analog games fosters a **strong connection with the game and between players**, especially when progression is shaped by the players (e.g., allowing players to build in the world, narrative choices). These findings align with previous work that emphasize how players can get emotionally attached to a game, and even mourn after the death of a character [14, 20].

Continuity arises not only when progress is carried over between sessions but also when **visible changes are introduced in the next session** (e.g., the winner gains new abilities for the following session). In analog games, these changes usually come in the form of permanent changes applied to the components (e.g., scratching, stickers). Previous studies [7, 19] have investigated the effects of persistent consequences in gameplay, highlighting how these can positively impact the player experience by fostering a stronger emotional connection to the game. In contrast, some participants expressed frustration with reaching irreversible points in gameplay (e.g., not being able to revert a decision or explore a part of the story) leading to a diminished desire to continue playing.

Participants also noted that continuity does not have to be built into the game's design. This sense may also emerge in how players perceive their **skill improving** and in how a **group develops memories together**. Our work suggests this type of continuity can even extend across different games, particularly those with similar playstyles or belonging to the same franchise [12]. Future research could investigate how games might better capture and celebrate key achievements and shared moments, creating opportunities for players to revisit and relive continuous experiences together.

Playing with the same group supports continuity, but **challenges in coordinating schedules** often led to frustration and abandonment of the game. While playing digital games asynchronously may alleviate this, participants noted how it may lead to some players feeling excluded if others have significantly more time to play. In analog play, addressing this challenge is more complex since players must typically be physically present to play together. Future work could explore incorporating asynchronous interactions in analog games while preserving the sense of continuity between player moves (e.g., including a companion app that tracks the game

process and in which players could make their move digitally, with the app providing context to the other player).

Another drawback of continuous play identified is the **challenge of resuming a game after an extended break**. Participants noted that a recap feature of previous sessions could help address this issue. For example, an analog game could include a digital narrator that summarizes key events, player decisions, and current objectives. Moreover, the way players choose to disengage with the game may affect their perception of the current session, anticipation of the next one, and thus their sense of continuity. Previous work [2] offers insights into how disengagement could be reframed as a positive aspect of the player experience. Future research could build on these findings to explore potential solutions that enable players to re-engage with the game at moments that feel more convenient.

4.2 Considerations for continuous transmedial gaming

Participants saw value in designing continuous play across analog and digital sessions. First, the approach was seen as a way to **increase flexibility** in how players progress in the game, allowing them to seamlessly continue play while preserving progress (e.g., by taking a picture and uploading to a digital app like Board Game Arena). Second, other perspectives noted that distinct gameplay experiences across mediums could **enhance immersion** and complement each other, for example, by delving deeper into specific parts of the story. Participants recommended designing each medium to explore different aspects of the same game, leveraging the strengths of each format (e.g., digital sessions to explore action-centered combat and analog to emphasize strategic planning and social interaction). Participants suggested that having one medium influencing or unlocking content in the other would foster a sense of continuity (Figure 1). Yet, participants cautioned that this should not result in medium dependency, where progression in one medium becomes a prerequisite for engaging with the other.

Transmedial play was discussed as a potential solution to address some drawbacks of continuous gaming experiences, such as the challenges of commitment and coordinating schedules with all players. This approach could allow individuals to engage with an analog game through digital means even when others are unavailable, preserving their personal sense of continuity. However, it

also introduces the challenge of **avoiding discrepancies in group progression**. To mitigate this, transmedial play should prioritize clear, shared indicators of progress across mediums and include mechanisms like notifications to keep players aligned.

To maintain a cohesive game experience and preserve the sense of continuity between mediums, certain elements, such as the game world or characters, should remain consistent across sessions. However, participants also noted that breaking continuity is not always a negative factor in the experience, as when done thoughtfully, it can lead to more fulfilling experiences. Future work could explore how balancing breaks in continuity between mediums could provide a more meaningful bond between game sessions while still not disrupting the overall experience.

Previous work has recognized that most analog game players often prefer the game to be fully analog and end up disliking the added digital element which plays a supporting role in the experience (e.g., reveal secret information) [10, 11, 18]. We believe that, if mediums are played independently and contribute to a continuous experience, the best of two worlds can be combined and lead to unique benefits. In future work, we plan to explore this concept in practice and assess how players react and perceive such an experience.

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