

Poly-Pervasive Playgrounds and Pitfalls: A Deployment Autoethnography of *What We Take With Us*

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ABSTRACT

What We Take With Us is a series of interconnected wellbeing-focused pervasive games I created based on my experience of the COVID-19 pandemic. The game was played in three formats, or “playgrounds” – an online alternate reality game, a physical room-based game, and game-based workshops. The design of these formats is discussed, followed by an analytic autoethnography of my experiences deploying and running each format. These accounts are thematically analysed with reference to existing research to suggest challenges and opportunities for consideration when deploying such games. This includes targeting and community issues, struggles around the presentation of pervasive games and the labour involved in making them, the dissonance felt as both a designer and researcher on personally situated projects, and the issues deploying such games in a post-pandemic era. Notable opportunities are also discussed, including the use of social media algorithms for advertising, the effect of the lusory attitude on games research participation, and how success can be defined in such projects.

Keywords

Autoethnography, game deployment, wellbeing, personal games, pervasive games

PROLOGUE

I'm lying here, kind of having a panic attack; trying to sleep but I can't get any; thinking about this project and what a fuck up it is. The ARG isn't working. I'm going to have to drop the TINAG aesthetic at some point soon. The irony is that I don't have the mental space for it. It's currently chugging along, not doing much, and that's causing me anguish. The idea of dropping TINAG to a similarly apathetic reception just tears me up inside. I think the thing with personal games – with bleed – is that from a design perspective, that's the problem – it's personal. Every rejection of every plea I make to people begging them to check out this thing I made is them not seeing me. This game is so important to me, and that's why it sucks that people just don't care. Yes, making it and working through the process has been valuable, but the fact that I see value in

Proceedings of DiGRA 2024

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it and others seemingly don't – what the fuck? How ironic that a wellbeing game is the thing causing me so much stress. I don't know what to do. I want to abandon it. I built this gorgeous room that I don't care about anymore. I don't feel connected to it because it's just another way the game can fail in my eyes. Are all three versions of this game going to mean anything? I'm staying up and writing this down to just get the words out. I thought I'd have something more hopeful to say by the end, but I just don't. I think this was a bad idea. I believe in the thing that I made, but there are too many points of failure. I could cut the ripcord now, but I need the data. After everything that I've done, it can't be for nothing. So, I guess I'll carry on. I don't think that's a hopeful note to end on – it's just a sunk cost fallacy.

INTRODUCTION

The above snippet comes from the research diary kept during the deployment of *What We Take With Us (WWTWU)* (Jerrett 2022), a series of interconnected pervasive games developed in the throes of the COVID-19 pandemic. Pervasive games “expand the contractual magic circle of play spatially, temporally, or socially” (Montola 2005), blurring the lines between reality and spaces in which play occurs, typically by being played (at least in part) in reality. *WWTWU* comprise of three formats – an online alternate reality game (ARG), a physical room-based game, and a series of workshops based on the digital game at the centre of these formats. The game focuses on improving player wellbeing, as the COVID-19 pandemic starkly illustrated its global importance (Razai et al. 2020). Importantly, my own mental and emotional struggles amidst the pandemic deeply informed the design and development of the game making the game’s creation an exercise in “design bleed” (Toft and Harrer 2020).

During *WWTWU*’s design process, the initial mechanical design of the game (a series of wellbeing activities presented within a digital game) began to pervade reality into a series of physical spaces, which this research refers to as *WWTWU*’s “playgrounds” – its real-world spaces of play. The digital game was initially meant to be at the centre of a confined physical escape room-inspired experience, but my background as an ARG designer led me to expand the game into a Discord-based ARG and a series of physical and online workshops based on the game’s tasks. This created a triad of interconnected playgrounds, instead of only the room-based game. In this expansion, *WWTWU* became a *poly-pervasive game* – a neologism offered by the present research to describe an individual pervasive game experienced through separate-yet-connected formats. This differs from transmedia experiences, which utilises multiple formats to present fragments of an overarching story (Ecenbarger 2016), or cross-platform play, which presents the same game across multiple formats. Instead, within a poly-pervasive game, each format hosts a unique aspect of gameplay, tailored to the strengths and capabilities of that medium.

However, this research does not focus on the design of these formats. Instead, it highlights knowledge generated from the deployment (i.e., launch and run) process of the game. Examination of this process is unique within pervasive games, as many are designed to only be played once, as the game’s fiction and subsequent player experience unfolds linearly over a period of real-world time (McGonigal 2007a). This allows the real-time run of the game (e.g., unfolding narrative, mechanic introductions, and players’ emergent behaviours) to be studied. Accounts of *WWTWU*’s deployment are presented through analytic autoethnography (Anderson 2006), wherein the results are contextualised against existing academic discourse. Doing so identifies the opportunities and challenges of deploying pervasive games in

a post-pandemic landscape, which aims to inspire those considering personal and pervasive game creation as catalysts for bolstering wellbeing in a post-pandemic world.

BACKGROUND

Values-Conscious Design

“Values-conscious” design is an umbrella term given to various frameworks that attempt to highlight specific values through game design (Nissenbaum and Flanagan 2014). Among these are frameworks such as ethical game design (Schrier and Gibson 2010), emotional game design (Isbister 2016), and empathy game design (Belman and Flanagan 2010). Values-conscious game design stems from the notion that games, as technological artefacts, have the values of their creators embedded within them (Flanagan et al. 2005; Grace 2010; Winner 1980). Values-conscious designers therefore intentionally consider the values that are implied by their design decisions.

The creation of personal games has emerged as a process for game creators to explore their own values. Such exploratory design can lead to personal growth through the meaning-making creative process, and has been advocated for by both academics and industry professionals (Rusch 2017; Lawhead et al. 2019). To this end, autobiographical game jams – events where participants develop games exploring personal themes within a set timeframe – are becoming increasingly popular (Danilovic 2018; Harrer 2019). Participants find such experiences to be therapeutic due to the social creation process, the necessity for reflection to find inspiration, the abstraction of lived experience into a game and the knowledge that results from the development process (Danilovic 2018). Sampat (2017) similarly notes that the creation of personal games can be a challenging process that results in growth, as representing personal experiences within sometimes-abstract game systems requires significant research and reflection. While this process can be self-reflective and cathartic for the designer, Lawhead et al. (2019) note that such games, despite the personally situated creation process, can be increasingly meaningful for players. Articulating personal experiences through design results in games that can be healing and empowering for players by illustrating that the difficulties they may face in their lives are shared by others (Toft and Harrer 2020).

In this vein, Toft and Harrer (2020) advocate for the integration of personal values and experiences into games through “design bleed”. The term is adapted from “bleed” as understood within Nordic larp, which refers to the blurring of boundaries between players and characters during roleplay. During bleed, aspects of the game can “bleed out” and affect the player, or real feelings can “bleed in” and affect the roleplaying experience (Stenros and Bowman 2018). “Design bleed” extends the notion of bleed beyond play and into design, encouraging designers to allow their lives to “bleed into” their game designs and explore values, topics, and roles often unaddressed by the wider games industry. Designing for bleed, however, is considered contentious due to its ability to encourage the transference of unwanted emotional experiences during and after play. Despite this, as with players who seek out personal games, some players court bleed in pervasive games to catalyse personal growth (Leonard and Thurman 2019).

Pervasive Games

Pervasive games are a potentially useful genre for implementing values-conscious game designs due to the genre's blurring of the lines between fantasy and reality, which may result in more direct value engagement. Players, often embodying themselves, interact with both digital and physical game assets within the real world. One particularly popular subgenre in this regard was ARGs (Montola et al. 2009) – games that use the real world/game world divide to tell unique stories of an alternate reality. Within this framing, players pretend to believe that the game context and assets are real – a perspective embedded in some ARGs' mantra that “this is not a game” (TINAG) (McGonigal 2003). When games adhere to the TINAG aesthetic, the fiction feigns authenticity, nowhere disclosing its ludic status. Characters, stories, and events all seem real.

The popularity of ARGs has, however, declined in subsequent years, due to their scope and experimental nature (Montola et al. 2019). Due to their existence in reality, development can be expensive and time-consuming as designers must create contingencies for myriad outcomes. Deployment is similarly complex, as gameplay needs to be managed in real time by members of the development team to ensure the game is being played effectively. As such, ARGs are often unsustainable at scale. Escape Rooms, another pervasive game type, have since emerged as a solution to these problems. They provide a contained ARG-like experience with a clear goal: escaping a locked room. Like ARGs, Escape Rooms have players communicate, collaborate, and solve puzzles, but their replayability provides a more attractive investment opportunity for potential investors (Nicholson 2015). However, Escape Room mechanics often hinder deeper emotional explorations of the room, as players often focus on escaping the room instead of the embedded narrative context of it (Blot 2017). Creating an escape room that focuses on narrative elements, instead of puzzles, may allow players to explore various values, creating a novel and affective player experience.

DEVELOPING WHAT WE TAKE WITH US

This section describes the design and development of *WWTWU*, as well as its unique structure. *WWTWU* is a *poly-pervasive game* – an individual pervasive game that players can experience through multiple different but complementary game formats. In this regard, *WWTWU* comprises a digital game, deployed as a website (built using HTML5, JavaScript, and CSS), a Discord server ARG, and a physical room-based game. These components narrate or inform the life of Ana Kirlitz, a game character that players can discover through play.

WWTWU was created as part of a practice research PhD project, wherein a game artefact is created both to examine the creative process and explore the artefact's reception (Higgins 2022). As such, *WWTWU* is both the product of a previously explored creative process (Jerrett 2024), and a standalone artefact wherein the deployment process is solely focused on in the present research. Stakeholder reception was then explored in subsequent research (Jerrett 2023). The game creation process was rooted in values-conscious and personal pervasive game development. The PhD project sought to examine this creative process from conception to reportage. As such, the game's systems, narrative, and presentational elements were heavily inspired by my experiences of remote work during the COVID-19 pandemic,

and focused on my personal values of music, community, and reflection, and their impact on wellbeing.

Despite the intensely personal nature of *WWTWU*'s creation, deployment, and study, it must be stressed that the game's creation was underpinned by a number of theoretical and practical design frameworks I had previously developed to inform a research-led design process (Jerrett et al. 2022, 2020; Jerrett and Howell 2022). In addition, design and implementation avenues were discussed at length with other game designers and relevant subject experts to ensure that design and implementation decisions were thoroughly grounded in good practice. However, *WWTWU*'s pervasive game structure, specifically the single-run ARG, made effective playtesting difficult, as discussed in prior research (Jerrett 2024).

Narrative Summary

Ana Kirlitz relocates to Portsmouth in early 2020 post-breakup. The new environment allows her career and wellbeing to thrive, aided by her play of the eponymous web-based digital game *What We Take With Us*, which provides her with a series of wellbeing tasks. However, local lockdowns in the wake of the COVID-19 pandemic plunge her back into depression, and fear confines her to her home for much of the next two years. In late 2021, her mother dies after contracting COVID-19, leading Ana to return to her childhood home to handle family matters and mourn her loss, abandoning her Portsmouth office. While home, Ana continues playing *WWTWU*, charting her experiences on a private Discord server she uses like a journal. Later, she makes the Discord public, hoping to use community interactions around the game in her PhD research. The ARG begins as players join the server through her invitation. As the ARG unfolds, players slowly learn about Ana's life during the pandemic and accompany her on a journey of personal growth by completing and discussing their own play of *WWTWU*. During the ARG, she convinces Adam, a "fellow researcher" (in reality, the game's designer), to allow other players to play the game in her old office, allowing him to aid her data collection process.

Playground 1: Room Game

The project initially began as an expansion of research on the value of empathy within the context of Escape Room games (Blot 2017). A core problem with the game type is its reliance on the eponymous goal of escaping the room. Within such contexts, players may not empathise within the experience, discarding the room's narrative context in favour of simply reaching the goal. To avoid this, *WWTWU* deviated from the traditional Escape Room structure by retaining a fixed location but eschewing timers and locked doors. The game instead engages players in a series of tasks, framed as mental preparation for work, akin to similar wellbeing games like *You Feel Like Shit* (Miklik and Harr 2016). This framing was inherently personal. During the pandemic, many people, including me, struggled with maintaining motivation and wellbeing (Hwang et al. 2020). *WWTWU* was my answer to the question of what might have helped me during that time.

The game mechanics of *WWTWU* involve sequentially completing 11 tasks, accompanied by a personalized music playlist. These tasks, including organizing your workspace, acknowledging your feelings, creating art based on that feeling, dancing, telling stories about your life, discussing wellbeing with others, listening to music and reflecting, engaging in self-talk, and finding pictures on the internet that represent

your emotions and experience, were designed to be performable in any workspace. However, in this game format, players play the game by entering a physical room – Ana’s abandoned office. In it, players discover the game website (that presents the tasks), Ana’s personal diary Discord server (which houses epistolary artefacts like playlists, videos), and various personal items scattered about the room that provide insight into Ana’s life. Players are tasked with discovering Ana’s story in the room and replicating her gameplay by completing the tasks.



Figure 1: Ana's abandoned office, where the room-based game is played.

Playground 2: ARG

Ana’s Discord server offered a unique opportunity to tell *WWTWU*’s story in real time. By releasing Ana’s epistolary posts that detail her journey from early 2020 to the present day over time, the Discord server could be regularly updated with new content, allowing the game to be deployed as an online ARG. In doing so, an organic community could be built around *WWTWU* to increase the study’s reach. Within the ARG’s narrative, Ana advertises the Discord as an unofficial community server for the game, which forms part of her PhD research. Remote play of the online ARG additionally aligned with the game’s COVID-19 related themes (e.g., remote work) while ensuring the game could continue regardless of COVID-19 restrictions. This added an additional layer to the game, allowing a global player base to participate in *WWTWU* and Ana’s story, instead of merely those based in Portsmouth.

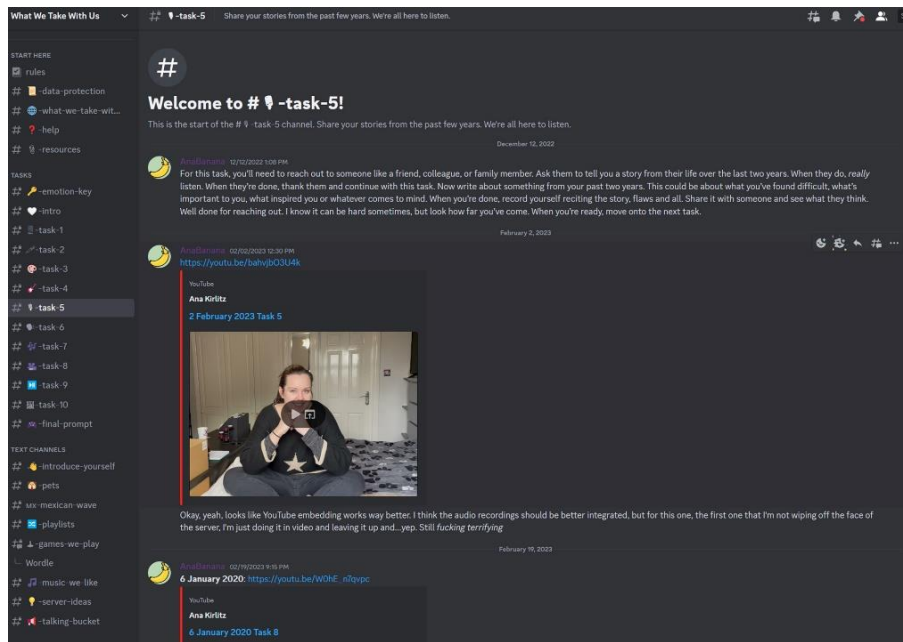


Figure 2: A screenshot of the Discord server where the ARG takes place.

Playground 3: Game Website and Game-Based Workshops

WWTWU's tasks, available on the game website, formed the basis for the game-based workshops. They were designed to collect feedback on the game's mechanics and served as an additional data source in case of insufficient room or ARG participation. During these workshops, which were held online or in-person in Portsmouth, I tasked participants to complete the game's tasks after introducing them to WWTWU's concept and context. Though the format minimizes some of Ana's narrative, the workshops nevertheless provided data relating to WWTWU's core gameplay experience.

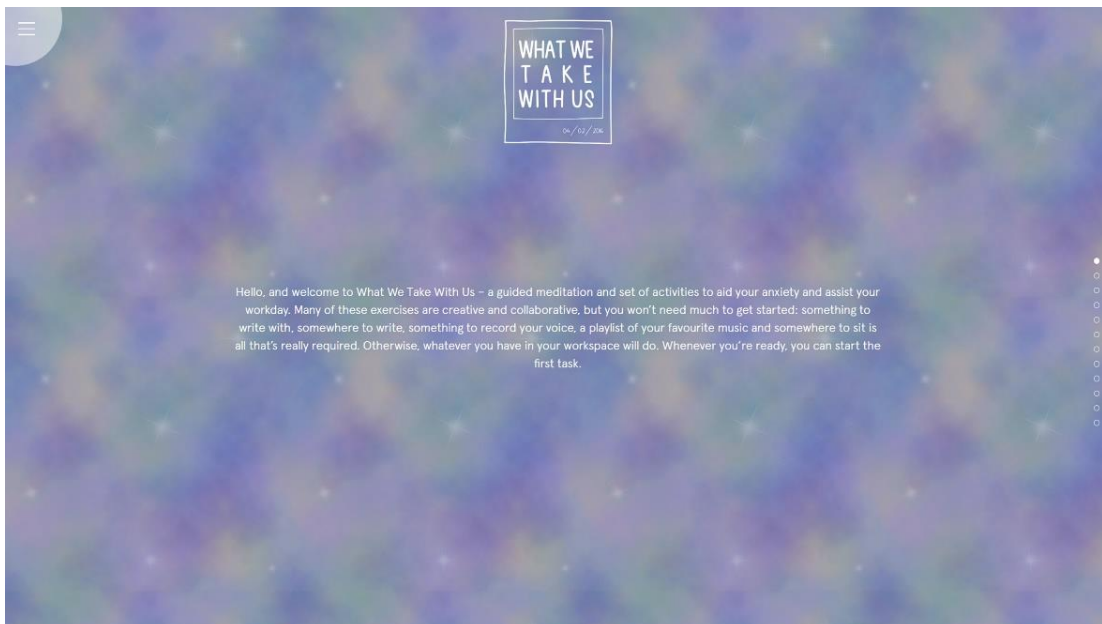


Figure 3: The WWTWU game website.

RESEARCH DESIGN

Research Context

The research seeks to understand the live nature of *WWTWU*'s deployment process (when the game is available and being played by players) to discover insights that may benefit future creators and their games. As artefacts, pervasive games are not merely experienced by their players at runtime. Instead, the game's designers and developers are often intimately involved with these phases of such projects, often needing to design gameplay, manage players, play characters, or play the game themselves during this period. The research aims to showcase how deployment, like knowledge generated from the research process (e.g., research-through-design), or knowledge gleaned from player responses (e.g., user testing) can be similarly valuable to creators. *WWTWU* ran from February to June 2023, and was studied throughout. The online ARG ran from February to May and was primarily played by British and South African players. The physical room-based game occurred in Portsmouth, UK in April and May. Lastly, 4 workshops were hosted from April to June both in Portsmouth and online.

Research Methodology

When exploring social and communal play in virtual and real spaces, ethnography has become a popular methodological choice, as evidenced by virtual ethnography's increasing use (Hine 2016) or game-specific applications such as Boellstorff's (2015) ethnography of virtual world *Second Life* (Linden Lab 2003). However, ethnography's focus on community often overlooks individual experiences, which was needed when navigating the complexities of a game designed, developed, and examined by a lone researcher. As such, autoethnography, which highlights the researcher's personal experience as an analytical tool, became the preferred method (Woodward 2018). This methodology is often applied when studying MMORPGs due to the emotional resonance of its insights when compared to traditional ethnographic findings (Brown 2015). Autoethnography also blends ethnography and autobiography (Woodward 2018), which was deemed fitting due to *WWTWU*'s autobiographical design. However, autoethnography's focus on *play* experiences within game studies can also be limiting. Instead, an autoethnography focusing on creator experiences borrows conventions from postmortems within the game development industry (Wawro 2015). By marrying academic autoethnographic approaches with industry practice, new knowledge can therefore be uncovered about game and research creation processes.

Within *WWTWU*'s context, this knowledge explores how pervasive games can change during play, and the effects that this can have on the deployment team. These personal experiences inform the autoethnography's results, as well as this research's use of first-person language. While evocative autoethnography emphasises the emotions underpinning these narratives (Bochner and Ellis 2016), analytic autoethnography situates them within the context of existing literature (Anderson 2006). This provides additional reliability and validity to the findings, while also situating them within the wider research context. This was particularly pertinent for the pervasive game genre, given its waning popularity and the difficulties the genre faced during the COVID-19 pandemic (e.g., the closures of physical Escape Rooms). While these broader findings could be presented using other formats (e.g., case studies), the autoethnographic approach highlights personal and practical insights for creators that may not be adequately communicated by other approaches' stoic

presentation. Additionally, the focus on deployment differs from user-focused human-computer interaction research, where player responses typically determine a project's success (Sharp et al. 2019). Instead, this research aims to highlight the knowledge generated by my individual deployment experience to inform similar future creators' practice. Examination of stakeholder responses for *WWTWU* are considered separately in Jerrett (2023).

As such, the research question for this study is: **What key opportunities and challenges emerge when deploying autobiographical pervasive games in a post-pandemic era?**

Data Collection and Analysis

While player sampling is not a focus of the study, much of the autoethnography focuses on my emotional responses to the size and scope of the player base and their recruitment through purposive and convenience sampling (Etikan 2016; Palys 2008). Data collection techniques included both participant observation (where I observed participants as a player myself) and non-participant observation (derived from field notes and player-created content) (Pickard 2013). A research diary additionally provided the reflexivity needed in analytic autoethnography by capturing my emotional reactions to gameplay (Anderson 2006). These data sources resulted in the creation of autoethnographic narratives, discussed in the following section.

Following my reflection on the deployment process, I employed reflexive thematic analysis (TA) to uncover pertinent insights for game creators (Braun and Clarke 2021). My intimate familiarity with the autoethnographic data already fulfilled the "data familiarisation" step of TA. Given this unique familiarity, code generation opted not to use an open coding process (Saldana 2021) or codebook approach (Braun and Clarke 2021), though repeated codes from my research diary or the text of autoethnographic accounts did assist in theme construction. Instead, reflecting on my deployment experience allowed me to identify particular challenges, unique gameplay experiences, and recurrent ideas that were used as initial codes. These included "community", "TINAG", "marketing", "player engagement", and "labour", among others. However, these codes initially represented "data domains" (i.e., underdeveloped themes) (Braun and Clarke 2019). The process of theme creation and review was then augmented by the analytic element of my autoethnographic approach (Anderson 2006). I revisited relevant literature around specific codes within the pervasive game subject domain to develop a holistic understanding of how my deployment experience related to existing knowledge. Further thematic development included merging codes around player targeting and community, the TINAG aesthetic and related labour, and others into combined themes. The Discussion section presents seven finalised themes created through this TA process discussed as either a challenge, an opportunity, or both, as supported by analysis of my autoethnographic experience in conversation with existing pervasive game literature.

Ethical Considerations

WWTWU's use within a postgraduate research context necessitated ethical approval prior to game deployment. Elements of the game design, such as the ARG's use of the deceptive TINAG aesthetic (McGonigal 2003), and the narrative reveal of Ana's mother's death during play raised ethical questions around informed consent and sufficient player safeguarding. As a result, narrative and systemic modifications were

made to *WWTWU*'s design to ensure informed consent. This included obtaining consent from players before entry into the workshops, room-based game, or ARG Discord server. Players were made aware of the game's emotional content, its use in a study at the University of Portsmouth and were signposted to wellbeing resources. Following these modifications, full ethical approval was granted. Such concerns around *WWTWU* highlight the importance of content warnings in personal or emotional games (Dunlap 2024).

STORIES FROM THE PLAYGROUND: THE AUTOETHNOGRAPHY OF WHAT WE TAKE WITH US

Playground 1: ARG

In February 2023, I posted the first piece of story content to the *WWTWU* Discord server, the primary interaction point for ARG players. I had been delaying the launch for ages. Finally launching the ARG meant sharing some of my most harrowing life experiences with the world. More importantly, I knew that ARGs never go as planned.

I reached out to students, friends, colleagues, and researchers, inviting them to embark on a journey of wellbeing on the server. Ana was merely a peer whose research I was helping with – a ruse that managed to convince at least one colleague who was happy to see that I had found “a little research friend”. A few early adopters – mostly friends – engaged intermittently with the game. Though initially worried this might bias the data, I soon realised that, though they had come because I had asked, they stayed because they found the community we were forming valuable. Despite this, I longed for a larger, more engaged audience with fewer personal connections to me.

I turned to Reddit's r/ARG and r/SampleSize forums, hopeful that advertising as Ana to seasoned ARG players and research-seeking participants would buoy participation. My efforts fell flat. The few players who stumbled upon the server often left as quickly as they had arrived. An unexpected surge in views on some of Ana's YouTube Shorts inspired hope but did not translate to active Discord players. I worried these players were dissuaded by the server's research disclaimer. Furthermore, I simply did not have the capacity, as a solo puppet master, to translate Ana's already-recorded content into videos that could be more easily cater to the almighty algorithms for the mere possibility of virality. Attempts to advertise more traditionally, including a pitch to journalistic publication *The Conversation* and the university's marketing office, were also met with rejection – the game deemed unmarketable, or not sufficiently grounded in psychological research. I was crushed. Nothing was working the way I had hoped.

I thought that if I built it, they would come. They did not. I had similarly struggled with audience participation for *Nomad* (Jerrett et al. 2017), a library literacy ARG that I had previously deployed in South Africa. Within that context, I had thought the lack of players was merely due to poor South African ludoliteracy, genre unfamiliarity, or mere disinterest in the game's genre or themes. I thought such problems would not affect a British audience so, when similar problems plagued *WWTWU*, I was just as lost and confused as I was all those years ago. Making such assumptions was clearly foolish, but I wasn't alone: the experts and designer peers I had asked had similarly assumed more players would materialise.

In a last-ditch effort, I reluctantly abandoned the TINAG aesthetic during the game's final narrative arc. By doing so, I was tacitly admitting to potential players that the game's most poignant narrative reveal – two videos of Ana distraught at her mother's death – was all just a game. Not that it mattered: the videos garnered a mere five views. With TINAG's abandonment came a final round of advertising to my personal and professional networks, openly admitting to the game's fictitious nature. A few likes, but no new players.

The ARG continued its slow death-march. Players did not seem to care about Ana anymore, seemingly ignoring the content she posted regularly and not engaging with the tasks, either. I would often find myself responding to content I had just a while earlier posted as Ana. "Great", I thought, "now I am *literally* talking to myself". While the server's task-based channels languished, however, the *Wordle* thread thrived, becoming a regular source of interaction between players. How ironic that we were all finding solace in a game not even part of *WWTWU*. At least we were playing together.

In the eleventh hour, two unknown new players breathed some life into the dying ARG. One, WoollenWreck, engaged extensively with the game's tasks and enriched the server with new ideas. Upon their request, new server channels were created to share books, hobbies, and podcasts. They also noticed the game's levelling system, wondering whether they could level up to become a "Grandmaster", which led to my creation of two new level-based server roles to reward player engagement. As Ana's parting gift at the ARG's conclusion, she awarded the Grandmaster role to the game's active players, WoollenWreck included. Though these new players might not have saved the ARG, it underscored *WWTWU*'s potential as a useful tool with a vibrant community: a bittersweet reminder that building organic connections for niche experiences takes time and cannot be rushed.

Playground 2: Room-Based Game

As the ARG crawled forward, I recruited players to the game room, an immersive experience designed to help players understand and empathise with Ana. The lack of the TINAG aesthetic better suited the room's structure, allowing me to effectively brief and debrief players. Regardless, reception was muted, with only a handful of responses to show for the wide-reaching advertisement. Offering custom-made enamel pins as remuneration made little difference. The promise of shiny things only attracted two more magpies.

The game room, initially conceptualized as an empathy-focused Escape Room, had evolved into a unique space for self-exploration. Despite straying from traditional Escape Room mechanics, I was curious how players would respond. I wanted them to explore Ana's space, connect with her story, and, in doing so, explore what mattered most to them.

I meticulously arranged Ana's laptop to hint at specific tasks (by pinning important applications like a voice recorder, camera, and others to the laptop taskbar). Despite this, players defied my expectations, often overlooking these cues entirely. Unfamiliarity and technical difficulties with the Discord platform were common, and often required intervention. Questions abounded about certain tasks – "Who do I ask for a story in Task 5?", 'or "How do I use the photo printer?" – revealing concerns that

oft-required intervention in such closed environments could disrupt player immersion.

Pleasingly, players immersed themselves in the room regardless, often exploring between tasks. They were drawn to the emotion wall, where previous players had pinned their artwork and photos; specific books caught their eye; records and a record player intrigued. Players found Ana's diary, and the note that colleagues had left consoling her on her loss. The intentional placement – and engagement – with these elements indicated that players translated their ludoliteracy to this new, novel context. Yet, while room players explored Ana's space avidly, they were reluctant to share their own experiences within it on Discord, unlike their ARG counterparts. They engaged solitarily, favouring personal gameplay over community interaction. What happens in the room stays in the room, it seemed. This unpredictability once again highlighted the complex, human dynamics within pervasive game experiences.

Playground 3: Game-Based Workshops

I am standing at the front of the room, awkwardly. “Does anyone want to share anything first?”, I ask, only to be met with the silent stares of six participants. It's the first game workshop, and as I look around the room, I cannot help but feel that the project, at least from a designer's perspective, has been a disaster. A struggling ARG, an empty game room, and now this.

WWTWU could have just been the room game, but participation there had been underwhelming, and the ARG was in shambles. The workshops were meant to compensate for their shortcomings. They did not rely on the confusing TINAG aesthetic, allowed many players to engage with the game simultaneously, and automatically created a workshop community – this was supposed to work.

The silence surrounded a task that prompted players to share stories of their past experiences. I had hoped they would share these stories within the group. They did not. It wasn't until I shared my own story that discussion blossomed, music was shared, and pictures drawn. Still, some seemed uncomfortable with the whole experience. The discomfort seemed to ease in *WWTWU*'s three remaining workshops, though participation remained low. Five planned participants for the next workshop became one, and six RSVPs for an online workshop became two, only one of whom played the game at all. The last online workshop fared better, though six attendees still dwindled to four over the course of the workshop. Despite being encouraged to join the Discord server for its communal advantages, workshop participants still refrained from sharing, even amongst themselves. They would share with me directly, and often not at all. Not everyone, it seemed, was ready to lay bare the contents of their emotional baggage – ironic given the workshop's name: “Unpacking What We Take With Us.”

I hang up the final video call for the final workshop and think about the journey I have taken: the ARG, the room, the workshops, and the myriad struggles they presented – three months of hell. I am exhausted. Music, one of the game's values, has been a constant buoy throughout the arduous project, but it has all been so loud, and so busy, for so long, that now I just sit in silence.

DISCUSSION: CHALLENGES AND OPPORTUNITIES

This section presents a variety of considerations for creators of similar experiences. While some of these findings are specifically situated within *WWTWU*'s deployment, these challenges and opportunities, created through thematic analysis (Braun and Clarke 2021), are presented as practical, actionable insights for designers. These themes intentionally balance discussion of implications for specific genres and technologies with the precarious and personal nature of game creation and/or research.

Challenge: Connecting with Communities Takes Time

Game design literature often acknowledges the importance of correctly identifying target audiences. The idea of “different fun for different folks” is a core understanding of player-centric design (Koster 2013). Designer-centric thinking contradicts this, suggesting that design should first-and-foremost serve designers’ whims, with audience reaction being secondary – a viewpoint shared with auteur-driven film theory (Montola 2012; Rusch 2017). While *WWTWU* aligns primarily with the latter perspective, it nevertheless defined an intended audience during design: young adults with a vested interest in wellbeing maintenance.

Despite an audience that satisfied targeting criteria (e.g., knowledge of games, interest in mental health interventions), participation remained a struggle. This may have been due to *WWTWU*'s complex nature as a pervasive game, wellbeing-focused research project, *and* personal narrative. Potential deterrents could include aversion to research participation (Patel et al. 2003), inability or disinterest in wellbeing experiences (Lister et al. 2023), reluctance towards games or pervasive games (Dena 2008), or even, given players’ reception towards Ana, unease with intruding upon someone’s personal experiences (Brown 2015). Therefore, future researchers may need to acknowledge these hidden obstacles to engagement in game-based research and investigate strategies to broaden participation during the game development process.

This can be somewhat addressed by adopting modern, requirements-focused user experience design (Rogers et al. 2023) and player-centric design approaches (Fullerton 2008) to similar projects, as opposed to the designer-centric approach advocated for within personal game development and utilised within this research (Montola 2012; Rusch 2017; Lawhead et al. 2019). Notably, however, differing genre expectations within pervasive game communities (e.g., Western vs Nordic larp) may complicate such player-centric approaches (Hellström 2012; Torner 2018).

WWTWU's deployment struggles can be further contextualised against those of other pervasive games. ARGs, in particular, have long struggled with community-building (Dena 2008). ARG *Urgent: EVOKE* (McGonigal 2010), in which players brainstormed ways to solve societal problems, for example, only saw approximately 4700 active players out of 178 000 site visits. *WWTWU* had 26 active players across its three formats and was advertised to approximately 1000 potential participants through Discord, Reddit, and Ana’s YouTube channel. This represents a similar 2-3% conversion rate. However, raw player numbers (e.g., “600 000 collaborating players”), rather than conversion rates, are typically quoted in publications, despite admissions that obtaining precise demographic data for such games is incredibly difficult (McGonigal 2007b). Low raw participation in some games may be in part due to the inherent

deception of the TINAG aesthetic, which may deter participation. However, the reality, as discovered during *WWTWU*'s deployment, was that low participation may persist even if the aesthetic is abandoned.

To assist in this regard, targeting existing player communities may bolster participation, as was the case with early ARGs (McGonigal 2007b). Larp design similarly draws on existing communities, such as those involved in Nordic larp, to fuel participation (Koljonen et al. 2019). Targeting such communities, with pre-existing game and genre expectations, may have benefitted *WWTWU*, especially when compared to *WWTWU*'s primarily British and South African player bases, who are less familiar with pervasive games. In *WWTWU*, cultural differences were also observed: British players seemed more reserved, compared to the friendly, mostly South African, Discord community, which aligns with cultural stereotypes (Geddes 2016; Idang 2015). Targeting geographic communities based on cultural values could therefore be a consideration for developers.

Finally, it is imperative to note that struggles with fostering community engagement are not isolated to pervasive games; it also extends to digital game creation. As game marketplaces overflow with options, effective advertising and community management has become increasingly important (Krasnianski and Kubasova 2019). Games sometimes become popular years after their initial release, or when released to new platforms (Schreier 2021). Embracing this “long tail” of games, where engagement might spike long after release, should therefore be a consideration for game creators (Kanat et al. 2020).

Challenge: Pervasive Games Have Evolved but Remain Labour-Intensive

Early ARGs utilised the TINAG aesthetic for its immersive benefits, allowing players to believe they had the power to change the world (McGonigal 2003). However, the aesthetic has recently become less important, with many prioritising transparency to increase player investment and safety (J. Stenros et al. 2011; Whitton 2009).

In this regard, modern pervasive games often utilise technology-supported formats, blending digital applications with real-world elements. *Pokémon Go!* (Niantic Inc. et al. 2016), for example, used technology from a previous ARG, *Ingress* (Niantic Inc. 2012), to spark widespread interest in augmented reality games (Paavilainen et al. 2017). In these instances, despite being interwoven with reality, the games remain distinct mobile applications.

Pervasive experiences that blend technology and reality are also increasingly found in digital games. Games like *Kind Words* (Scott 2019) facilitate real interactions via digital letters, with the game only acting as the interface between players. *WWTWU* utilised a similar approach with Discord providing a conduit for play, but its lack of clearly demarcated game status may have confused outsiders. Similarly, visions for the metaverse merge real and digital aspects akin to pervasive games. Current practical solutions, however, involve a range of distinct virtual worlds such as *Roblox*, *Fortnite* and *VRChat*, which players must consciously launch to play (Buchholz et al. 2022). This suggests that players may prefer pervasive game experiences they can explicitly opt-into by launching an application.

However, as these games become more complex, so too does the labour involved in creating them. The genre has often required high degrees of physical labour associated with its intersection with reality (Montola et al. 2019). However, even online pervasive games, as seen with *WWTWU*, require substantial time and cost investment to run. The room game also necessitated similarly intensive labour for setup, monitoring, and resetting, alongside the labour incurred through player briefing and debriefing in both the room and workshop formats. These activities were physically, mentally, and emotionally taxing, given *WWTWU*'s emotionally charged content, which aligns with similar issues within larp (Jones et al. 2016).

Ultimately, the amount of labour in the development and deployment of *WWTWU* was severely underestimated and was hindered by its ballooning, ambitious scope. Independent game development is often evangelised as a playful, creative opportunity (Farmer 2021). However, the reality, as Schreier (2017, 2021) shows, is often far less glamorous. Pragmatism suggests that developers should simply avoid scope creep to keep projects manageable. However, I experienced firsthand the struggle many developers face, chasing ever-higher bars of personal satisfaction with a project, regardless of practicality (Cote and Harris 2023). As such, creators should carefully manage production processes and timelines. More importantly, they should ensure that adequate support measures are in place to ease physical, mental, and emotional loads.

Challenge: Society May Now Be Post-Pandemic

WWTWU's design was meant to reflect realities of the COVID-19 pandemic. The room, the task system and the use of Discord all aimed to simulate remote working conditions – an analogy strengthened by an ARG that connected various remote players. However, launching the ARG earlier when the effects of the pandemic were more visible, instead of in early 2023, may have led to greater participation. I may have 'missed the boat'. Pandemic references on the server or in the room were often ignored by players, given its reduced severity. Instead, societal reintegration was a priority for many, with players' *WWTWU* tasks on Discord often reflecting people socialising or returning to work.

Creators should thus be aware that individuals' priorities may have shifted post-pandemic, affecting how they choose to allocate their time and potentially reducing their engagement with games (Ducharme 2020). Digital fatigue may similarly affect people, affecting the usage and perception of platforms like Zoom and Discord (Anh et al. 2022). These factors may have impacted *WWTWU*, but also importantly indicate potential challenges for the creation and maintenance of digital game communities on these platforms in the post-pandemic era.

Challenge/Opportunity: Personal Game Projects Can Reveal Designer/Researcher Dualities

Auteur theory posits that audience response is irrelevant (Montola 2012). In this regard, personal game creation can be cathartic regardless of reception (Rusch 2017). However, the modest reception of *WWTWU*, despite extensive promotion, deeply affected me as a designer. The autobiographical aspect of the project amplified these sentiments: it felt as if not only the game but also my personal experiences were being dismissed. These emotions were stronger than those arising from previous, player-centric, projects, and are likely related to some creatives' need for external validation

(Maitland 2019). Lacklustre reception led me to doubt my game development skills. While such imposter syndrome is prevalent in the games industry (Moss 2016), such results nevertheless highlight the importance of addressing such issues for developers, especially when working on personal projects.

The Beginner's Guide (Wreden et al. 2015) echoes such struggles around external validation. In it, the creator, as narrator, guides players through game levels while musing about the nature of creative practice, admitting that validation was a core reason for the game's creation. While fictional, this admission aligns with the creator's reported wellbeing struggles at the time (Andrews 2017). Exploring the prevalence of such feelings within game development, and why such feelings occur, may be useful for future research.

Despite the numerous challenges encountered during *WWTWU*'s deployment, the researcher within me remains captivated by the game's middling response, creating a striking cognitive dissonance that may present an opportunity for future researchers to explore. Failure, though frustrating, should be embraced to improve future development practices (Fullerton 2008). Ultimately, all data is good data – a lesson that may often be difficult to internalise, but that is nevertheless important.

Opportunity: Social Media Algorithms May Be Leveraged for Enhanced Engagement

Though *WWTWU*'s deployment was fraught with struggle, one notable opportunity was the unexpected virality of Ana's YouTube Shorts relative to her other videos, highlighting the potential for harnessing the power of social media algorithms in driving engagement. While recommendation algorithms historically emphasised specific metrics like click-through rate, newer versions use machine-learning to create neural networks that tailor recommendation around 80 billion undisclosed factors (Covington et al. 2016; Davidson et al. 2010). The obfuscated system aligns with findings from *WWTWU*, where seemingly random videos garnered significant view counts. As YouTube Shorts, the extended reach presumably resulted from their automatic display based on users' personal recommendation algorithms.

Contents of Ana's particularly "viral" videos include her exercising, talking to herself in her car, or playing with her dog, suggesting categories that could be leveraged for increased engagement. However, the spoken content of the videos often differed from these visual properties, suggesting the presence of hidden visual categorisations around pets, exercise, or travel. However, Ana's post frequency, a metric assumed to be important, did not seem to affect the channel's overall engagement. Thus, targeting broad interest categories through visual signifiers, regardless of post frequency, may yield some success for developers. However, this requires further research, and must be approached delicately as notions of "gaming the system" within such communities remain frowned upon (Petre et al. 2019).

Creators thus need to strike a balance between catering to recommendation algorithms with their game advertising while still presenting an authentic product or experience. In this regard, following the platform's terms of service, creating fulfilling content, packaging videos appealingly and targeting them to the correct audience may serve creators well. Further research on this, especially in the context of pervasive games, games marketing, and games journalism, is encouraged.

Opportunity: Personal Connections in Games Research May Not Be Taboo

Convenience sampling, often criticised in research for its alleged lack of rigour and generalisability, faces similar challenges to those faced in this study regarding the balance between relationships to participants and research integrity. However, as with in ethnography these challenges can be overcome through careful management, professionalism, transparency, and reflexivity (Brown 2015). These concerns may also extend to other non-probability sampling methods in games research, which may also encounter problems with participation and sampling bias due to the voluntary nature of play. Participants who are intrigued by the game's concepts and themes are more likely to accept the "lusory attitude" (Suits 2005). Thus, as players will primarily engage with what interests them, convenience sampling may not be as taboo as it initially appears. In *WWTWU*, it made little difference if I posed as the researcher, with the gravitas supposedly implied through personal connections, or if Ana did – only those interested in the experience participated. Given the voluntary nature of play, provided relationships are professionally managed, researchers can nevertheless gain valuable insights from known participants, suggesting that convenience sampling should not be wholly dismissed within games contexts.

Opportunity: Games Can Create Profound Spaces for Social Good

Despite the autoethnographic accounts of struggle throughout this research, player engagement with *WWTWU*'s various formats demonstrates an audience for these kinds of pervasive wellbeing games, regardless of *WWTWU*'s small reach. Players successfully completed the game's tasks and engaged in its community, as the game encourages. While specific player reactions are discussed in Jerrett (2023), initial player reception from the Discord server suggests the project was ultimately successful for those who participated.

Player engagement with *WWTWU* thus aligns with research suggesting games can be used for social good by challenging the norms of the medium (Flanagan 2009). Games often assist players in dealing with personal struggles (Lewis 2014), and sometimes also have therapeutic benefits (Colder Carras et al. 2018). While games and game design should not replace traditional therapeutic practices (Rusch 2017), they can nevertheless present accessible, low-risk supplementary alternatives. In this regard, *WWTWU*'s website and Discord server will remain active indefinitely to provide a safe space for interested players.

CONCLUSION AND IMPLICATIONS

Exploring *WWTWU*'s playgrounds – its ARG, room-based game, and game-based workshops – underscored an experience rich with challenges and rewards. While the game's design and deployment were far from flawless, discussing the process highlights the valuable considerations offered by game deployment-focused autoethnographies, even against the backdrop of a global pandemic. The study's limitations, including low participation, the introspective nature of autoethnography, the lack of stakeholder responses, and its specific geographic context should be considered when interpreting the findings. Despite these issues, the findings provide practical takeaways for prospective pervasive game creators. Key insights include considerations for building game communities, the effort required to produce and run pervasive games, the challenges of maintaining the TINAG ARG aesthetic, the

cognitive dissonance of being both a researcher and creator, and the need to adapt to players' changing preferences in a post-pandemic world. Several opportunities and areas of future research are also noted, including the importance of understanding social media algorithms for increased engagement, the effect of the lusory attitude on convenience sampling within game projects, and the potential of games as vehicles for social good, regardless of player count.

EPILOGUE

I watch Ana's actor deliver the end of her story. While Ana addresses herself, it feels like she is addressing me:

Just focus on the fact that you did it. You're really here, it's really 2023, and you are actually gathering actual data for your PhD. She smiles, kindly: I know it's been a clusterfuck, and at times you're going to feel absolutely inconsolable, but you have to keep remembering that all data is good data. A laugh. It's hard for me to sit here and say that to you with a straight face... But you did the thing. She rolls her eyes, annoyed. You keep acting like you did not, but you did so... Look at you! You're a fuckin' superhero!

In another video, Ana again speaks to my soul:

So many times these last few years I've just felt like giving up, but I'm here to tell you that you still have too much to do! So, remember to fucking... Take time for yourself, eat your vegetables... Most of all, think about what matters most. Then, as earnestly as possible, she gets to the point: What are you taking with you today?

What I take with me is that despite the failures and the struggles, I put some good out into the world. Regardless of how people played the game, or whether they did, what matters most is that I've made a space where people can think about their emotions and talk about them; share struggles and share music; draw pictures and print them out. No matter what anyone else says, *this mattered to me.*

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