

Re:collect: a museum mobile game

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Keywords

GLAM game, art gallery, mobile game, science fiction

Format of work

Browser-based game with an accompanying guide

DESCRIPTION OF WORK

Re:Collect is a mobile game (<https://www.sgmiscifgame.com/>) designed to be played alongside the Sci-Fi: Mythologies Transformed exhibition at Science Gallery Melbourne. Visitors are invited to play the game upon entry into the gallery, and can scan a QR code to open the game on their device. The game opens with a memory-loss sequence, introducing the player-character as a resident of a paradise city, who is mysteriously drawn to an object that restores part of their memory and identity. They locate a spaceship, and are greeted by the ship's AI, who informs them that they have collected a memory shard, and invites them travel to other planets and find further memory shards, which may be used for a yet-unspecified purpose.

Each chapter in the game, represented by a planet (fig.1) is related to a set of works or "chapter" in the exhibition¹ (fig.2). To progress through the game, players are instructed to engage with the works in the show and locate numerical codes (fig.3) that they must input into the ship's keypad to move on (fig.4). The game has multiple endings (including an early easter egg), depending on specific narrative decisions made by the player.



Figure 1 Planet selection screen

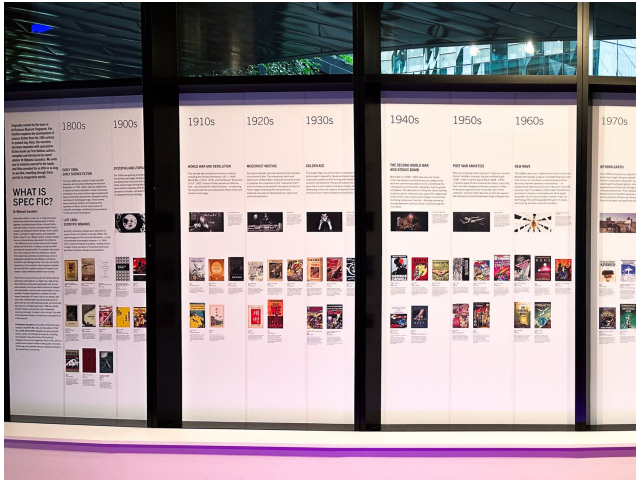


Figure 2 The Science Fiction Timeline – one of the artworks in the Words and Worlds chapter



Figure 2 An interpretive text panel with a game code attached to the frame



Figure 4 The keypad

RESEARCH STATEMENT

Background: Mobile games in museums are increasingly popular as a means of enhancing visitor engagement by offering interactive, narrative-driven experiences that complement physical exhibits (Cesário et al., 2017; Manoli et al., 2015; Ng et al, 2018; Pucihar et al., 2016; Yiannoutsou et al., 2014). They are particularly useful for exploration-based learning (Madsen & Jensen, 2021), and when they emphasise storytelling and narrative (Papakostopoulos et al., 2019). However, successfully blending physical exhibits or objects with digital experiences remains fraught. Several scholars emphasise that the tangible qualities of museum visits are still vital (Ciolfi, 2021; Roussou & Katifori, 2018), and in discussing the relative strengths and weaknesses of museum mobile games, authors often comment on the degree to which the game balanced attention on the artworks vs attention on devices (Schaller & Flagg, 2013). Avoiding this requires very intentional design, and good collaboration between game developers and curators (Birchall & Henson, 2017).

Re:Collect was designed by a group of students - one from each faculty at the University of Melbourne, as part of a co-curricular activity supported by Chartered Accountants ANZ and their partnership with Science Gallery Melbourne. As young people often report feeling excluded from museum spaces (Mason & McCarthy, 2006), it is a specific remit of the Science Gallery network to address this in their gallery offerings, and this project also took on this priority. This meant that while we approached the design of *Re:Collect* with some of these issues in mind, the emphasis was on the learning experience for the students more than it was the outcome of the game.

Contribution to field/industry: The game's development took place between May and August 2024, prior to the opening of the *Sci-Fi* exhibition on 2 August 2024. As the game was designed while the installation and layout were still being finalised, our team had to rely on interpretive text from its original display at ArtScience Museum. This presented challenges in terms of navigation and spatial design of the game, but it also strengthened the game's thematic alignment with the exhibition. Playtesting was conducted after the installation was completed, informing the final iteration, which includes wayfinding guidance from the ship's AI to support exploration. The support of the curatorial and academic engagement teams was critical, however the overlap with the final run up to the exhibition opening delayed the final development of the game. Cross-departmental collaboration is a recognised challenge in museums and galleries (Knudsen & Olesen, 2018), which was reflected in our experience of creating a project that spanned Science Gallery's two education teams, our curatorial department, and our public programs.

While the design of the game was largely drawn from the *Sci-Fi* exhibition and its themes, the original design brief involved sustainability, economics, and real-world problem-solving through gameplay. However, the richness and density of *Sci-Fi* as an exhibition led these themes to dominate the design, posing a challenge for fully integrating aspects of the brief that were not already reflected in the exhibition.

We also drew inspiration from a number of games in the development of *Re:Collect*. *Sea of Stars* (Sabotage Studio, 2023) and *Celeste* (Maddy Makes Games, 2018) significantly influenced the game's visual style and some gameplay elements. Additionally, *Dungeons & Dragons* (Wizards of the Coast, 2014) played a foundational role in how structured the narrative was structured, drawing on experience as game masters to frame each planet as a distinct encounter.

Significance: *Re:Collect* changed the way visitors engaged with the exhibition. Several players mentioned that it made them want to return and spend more time with the artworks, and that the game helped them to notice aspects of the artworks that they wouldn't otherwise have picked up on. However, another player commented that the game became "the experience" of the gallery, indicating that their focus was perhaps less on the works in the show. This highlights how the game provided a fundamentally different way to experience Science Gallery Melbourne compared to a typical visit.

What makes this project particularly significant is that it was created by students, with minimal support and a limited budget, yet it still had a meaningful impact on the gallery experience. This isn't to suggest that museums should rely on students to do this kind of work for free, but rather to demonstrate that, with a strong interest in games and some design knowledge (in this case, familiarity with Unity), such projects are achievable. The critical factor in this success was the team's shared passion for games. Amid competing design priorities, the unifying goal was always to make a good game.

EXHIBITION

Re:Collect is browser-based, and is best suited to players accessing the game on their own device. However, as the game is integrated with the *Sci-Fi* exhibition, it requires a reference guide to take the place of being in the physical museum. In an exhibition context, this might look like a small table with the game running in a browser, a QR code for players to access the game on mobile, and several paper copies of the reference guide.

BIO

Nellie Seale is a PhD student at the University of Melbourne researching how museums can use games for community engagement, visitor experience and educational outcomes. Nellie is also an artist and game designer, and the director and co-founder of Melbourne Megagames. Her other research interests include accessibility in games and games as cultural heritage.

Ethel Villafranca is an Academic Engagement Manager in the Museums & Collections Department, an Honorary Researcher Fellow, and casual academic at the University of Melbourne. Her PhD research, Curated learning, focused on identifying teaching strategies of museums that school teachers can adopt to help students engage in deep learning.

Riya Baldawa is a Bachelor of Design student, artist and designer. She is interested in the connections between gaming and the real world. As a gamer and designer, she strives to explore new ways to develop interesting solutions for design problems.

Emma Bampton recently completed her Juris Doctor at the University of Melbourne. She is an avid gamer, and interested in addressing societal problems and understanding why society is structured the way that it is, and who is harmed and benefited by these structures.

Bee Montager is currently completing their Masters of Teaching (Music and Drama learning areas). They are a composer, sound designer and performer, with an interest in voiceover acting and composition for video games. As both an educator and practitioner in the arts, they have a keen interest in exploring sociopolitical challenges with students through artmaking, inclusive of video game design.

Abi Nicholson is studying a Bachelor of Applied Linguistics, and a professional Dungeon Master with a massive passion for making and playing RPGs. She is interested in finding and putting together communities where people of different backgrounds can come together in one fantasy world.

Tim Phan is a Bachelor of Commerce student with a strong interest in coding, creating games, and learning about and thinking about solutions to real world problems.

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ENDNOTES

1 *Sci-Fi: Mythologies Transformed* was originally presented as *New Eden: Science Fiction Mythologies Transformed* at ArtScience Museum in Singapore (21 Oct 2023 – 3 Mar 2024). In the original version of the show, the works were organised into chapters that visitors progressed through in a specific order. At Science Gallery Melbourne these chapters have been dissolved in favour of a more nebulous experience of the works encouraging visitors to make different connections between themes and to accommodate the differences in physical space.

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