

Playing to be in Dja Dja Wurrung Country: a learning program creating locative games

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Abstract

This paper examines the design and delivery of a learning program with First Nations students, their teachers, community, and non-Indigenous educators that created experimental locative games in the Dja Dja Wurrung region of Bendigo in Victoria, Australia. We discuss the programs experiential, place-based and relational ways of learning and how these were enacted through a reflexive approach embedded in local community and cultural engagement and participation. The games are analyzed in relation to how players connected to Country through playing in Country, demonstrating how their situated and embodied interactions invited a multisensorial engagement with place to support social and physical well-being. The program is critically reflected on as a case study for a two-way learning approach supporting young First Nations people's connection to, and expression of Country through locative games as place-making experiences.

Keywords

locative games, play, place-making, traversal, First Nations, Country, sound, learning program, play-based pedagogy

Introduction

Games that use mobile and augmented technologies invite players to walk between and interact with outdoor physical locations connected to digital systems and media. This situates players in both the actual environment and the actions and mechanics of the game, creating opportunities to reshape our experience of public spaces and physical environments as mixed realities. [1] [2]

Although the popularisation of mainstream location-based games has seen a rapid expansion of commercial and entertainment interests, the exploration of locative games for experimentation and innovation across arts practice [3], serious games [4] and urban play [5] is expanding. Characteristic of this practice is a capacity to radically shape and recontextualize spaces and locales through critical and conscientious forms of play that respond to the specificity of a place and its socio-cultural context. This has seen new opportunities emerge that explore and reimagine notions and experiences of place.

In Australia, all places; cities, non-urban spaces, rural locales and otherwise are Indigenous places with a growing

practice in mobile locative experiences that engage with Indigenous knowledges emerging. [6] *Yalinguth* is a sound-based augmented reality mobile application connecting people, stories and place together through sharing important Aboriginal and Torres Strait Islander accounts and voices in-situ across Melbourne. [7] *TIMEr* is an augmented reality pervasive game situated at the RMIT city campus which features stories of land, river and sky with Boonwurrung elder N'Arweet Carolyn Briggs. [8] *64 Ways of Being* draws on Indigenous knowledge and Melbourne's multicultural communities in an augmented reality journey that embeds location-specific participatory artworks throughout the city. [9] However, while there is increasing recognition of the significance of Indigenous values, perspectives, and practice in designing and innovating with emerging creative technologies, locative games made by First Nations people remain relatively few.

In this paper we examine a learning program in which young First Nations students created experimental locative mobile games in the Dja Dja Wurrung region of Bendigo in Victoria, Australia. With curriculum and learning programs for young Indigenous people using and accessing digital media underdeveloped in Australian schools, this learning program was designed to lead ongoing teaching and learning in locative games with local secondary schools in the region. [10] The program was conceived by ACMI Education and Bendigo Tech School for students to develop game design skills and knowledge whilst strengthening their connection to and understanding of Country.

First highlighting the capacity for locative games to foster connections with place and community we then share the background, intentions and development of the learning program and its grounding in local community inclusion and participation. Following this, the programs experiential, place-based and relational learning activities are discussed, with a reflection on the issues and opportunities encountered by the participating students and educators. An outline of the conceptualization, design and experience of the locative games created in the program is then shared, examining how the embodied experiences enacted in the games invited a playful connection with Country.

In examining the aims, design and outcomes of the learning program we make an argument for the capacity of locative games to offer compelling sites of practice for understandings and engagements with locality, community,



Figure 1. Playing locative mobile game created by students (2022)

place and Country. In the conclusion, we reflect on the two-way learning program as a distinctive case study for the future development locative games as place-making experiences.

Locative games learning program in Dja Dja Wurrung Country

Games and play in place have been culturally meaningful for First Nations people for millennia, intertwining dynamic and complex forms of traversal, performance, and movement together in ways that respond to the context and characteristics of Country. Intrinsic to understanding and sharing knowledge, customs and beliefs Country has deep and complex meanings for First Nations people - it encompasses not only a place itself; its water, skies, land, animals, people, vegetation and so on but also the relationships and meanings intertwined within it. This connectivity is central to Indigenous ways of life and fundamental to identity, language, well-being, family and community. What is now known as the Bendigo municipality has been inhabited by the Dja Dja Wurrung and Taungurung people for centuries who have been resilient to institutional exclusion, altered landscapes and historical dispossession since colonisation. [11] In 2013, the Victorian Government, and the Dja Dja Wurrung people reached an agreement giving rights as Traditional Owners and legal

recognition to connection to Country, shaping the practices of the regions traditional lands known as 'djandak'. [12]

Highlighting Dja Dja Wurrung culture, the learning program was established in 2021 to support young First Nations students in developing play and game design thinking and skills for creating locative mobile games for Djaara Lights, a public festival in Bendigo. The program brought together students from six different secondary schools in the region enrolled in Bendigo Flexible Learning Options (BFLO) which provides specialised support to young people at risk of disengaging or not continuing with their education. Designed and delivered by ACMI Education and the co-authors in collaboration with Bendigo Tech School, Indigenous owned education technology company InDigital and Yorta Yorta and Dja Dja Wurrung artists Troy Firebrace and Drew Berick, the program aimed to share the design and making process of developing locative games and demonstrate how the augmenting of sites using digital systems and locative play could provide engaging and innovative ways to build and express understandings of a place. Acknowledging the progressive nature of this pilot learning program, its goals and objectives were not heavily focused or measured on the resulting locative games alone, but on the overall process and understandings developed across the entire program. Using a locative game demo designed by co-author Uyen Nguyen (Figure 2) as a guide, this pilot program resulted in



Figure 2. Locative game demo designed by Uyen Nguyen (2021)

several locative games being made, played and shared by students and the engagement across the program was apparent. This pilot program provided a valuable foundation for a future extension to the program the subsequent year.

The focus of this paper is the second learning program undertaken at Gateway Park, Kangaroo Flat in 2022. The program aimed to invite and relate people with the bush reserves, lake and walking tracks of Gateway Park through locative mobile games and playful experiences created by the students with the broader aim of exploring how these games might support physical and social well-being through outdoor situated play. The Healthy Loddon Campaspe initiative, who enable and implement place-based activations focusing on physical activity, became a community partner of the program, supportive of how locative games could be approached as a reflective and mindful mode of engaging with outdoor natural settings.

Playing to be in Country

Scholars and designers have highlighted the importance of eschewing dominant conventions of Western centric paradigms of game design (ie rigid rules and boundaries, capitalist competition, binary or zero-sum scoring systems) that are often unsuitable for reflecting Indigenous values and principles [13]. Considerate of this, the selection of the game platform for the learning program was a considered one. TaleBlazer, an open-source platform for both iOS and Android mobile devices was chosen for its accessibility and capacity for beginners to easily extend, adapt and create game mechanics and systems. A playable game demo designed in TaleBlazer by co-author Uyen Nguyen was used by students and teachers as a basis to test, play and develop their own games (Figure 3). With a visual block-based scripting system, Tale Blazer is suitable for people that may

not have any prior knowledge of programming, allowing easy modification of the game demo for the student's own purposes. As the teachers of BFLO were leading the project after the initial set-up, the extensive documentation directed to educators using locative games was also valuable. The core mechanics available in TaleBlazer including collecting objects in specific locations were apt for connecting walking and gameplay in the game demo by Nguyen and this informed the students own games. Using the demo as a guide, the accessible and open nature of TaleBlazer allowed students to explore and realize their own interests and content.

The ideation of the demo and subsequent student-built games originated from conversations that local Indigenous artist Troy Firebrace conducted with students on field trips to Kangaroo Flat and Bendigo Creek where they indicated a desire to share their interpretations of the site - it's flora, fauna, grasslands, rocks, lake, paths and so on through the games. They also wanted to encourage a sense of togetherness when playing their games, inviting friends, family and others to experience what they observed and felt in this place.

Playing the game demo together was one of the first activities of the learning program. As it was the first locative mobile game most of the teachers and students had played, its structure, design and gameplay was intentionally simple. Integrating traversal as the central experience of the gameplay, the game reimagined Gateway Park in Kangaroo Flat as a specific 'living' being with distinctive traits and behaviours that the players explored. The game invited players to 'wake up' Kangaroo Flat by finding each of its sleeping body parts dispersed through the landscape, discovering, and activating sounds to bring it into being. Guided by an on-screen map of marked locations, players traversed the parkland reserve with their mobile device and were guided to specific spots in which they were presented with a prompt for a playful action, scenario or encounter.

These play-based prompts invited an engagement across three locations within the site. Kangaroo Flat's 'ear' was positioned within the vicinity of a tree featuring a distinctive knot in its bark, the prompt inviting players to sing a tune or make a sound to wake it up. Kangaroo Flat's 'nose' was positioned with the long grass and water reeds adjoining Bendigo creek, the prompt asking players to 'tickle it' by gently waving the grass. Kangaroo Flat's 'hair' was situated in the dense low hanging branches of a tree, players invited to stroke and touch it's leaves to "let it know you are there". Although initially guided and prompted by the mobile device, the key actions of the game were not screen-based and encouraged a multi-sensory and embodied engagement with the environment and other players. This playful social

approach cultivated improvisation and collaboration, some students encouraging the more self-conscious players into play and other players interpreting and developing the prompts and actions in their own ways. Inviting players to be physically and socially active, the game posited the body and experiential ways of knowing as central to the experience - the mobile device put away at times for a direct and situated experience.

Conceptualising, developing and play-testing the games in-situ was crucial to engendering a sense of belonging and togetherness within the group at the site. The students strengthened their understanding of Kangaroo Flat through walks along the park reserve's trails, grasslands and creek beds, developing a greater awareness of the sites features; it's sounds, textures light, views, terrain and so on. This was particularly important for students in establishing the scale of the site and how their game worlds could be situated within physical space; How far should players walk? What do players see while walking specific routes? What is the terrain underfoot? Observing the surrounds was followed by a more active engagement with the site through 'bodystorming' methods. A form of brainstorming undertaken with physical and movement-based actions, bodystorming was introduced to develop and rehearse possible game ideas, particularly the playful invitations of the games. This approach created intuitive and direct ways of establishing the initial experiences of the games without focusing on the technology and allowed immediate feedback on the student's ideas.

Points of interest in the site were indicated by students with small-scale markers positioned in the ground. Prompted by our proposition "If you were here with your friends, what would you do?" students gathered at each marker to discuss the playful actions they wanted to invite others to do. These place-based invitations were fundamental to building the design and experience of the students' locative games. Students integrated a range of playful prompts into their games - from observing the swaying rhythm of the creeks water reeds to doing handstands using the support of nearby trees or rocks for balance. Some prompts were metaphorical including an invitation to stand in the centre of a circle of trees to 'recharge' yourself or crossing over a series of rocks to a small lake islet to build courage and self-assurance. These prompts and the actions and scenarios they fostered situated people to the site in novel ways, encouraging players to engage with the location and one another through sensing, traversing and moving in the surroundings.

Game and play design workshops undertook at Bendigo Tech School turned the activities of the site visit into playable locative games - designed by the students as more open and improvisational experiences than conventional games. Using the game demo, students adapted and remixed its pre-programmed backbone using TaleBlazer's web editor to create their own games. Without any extensive prior knowledge or experience of locative game design, the students developed distinctive games that were launched and played in Gateway Park. Three main themes emerged in

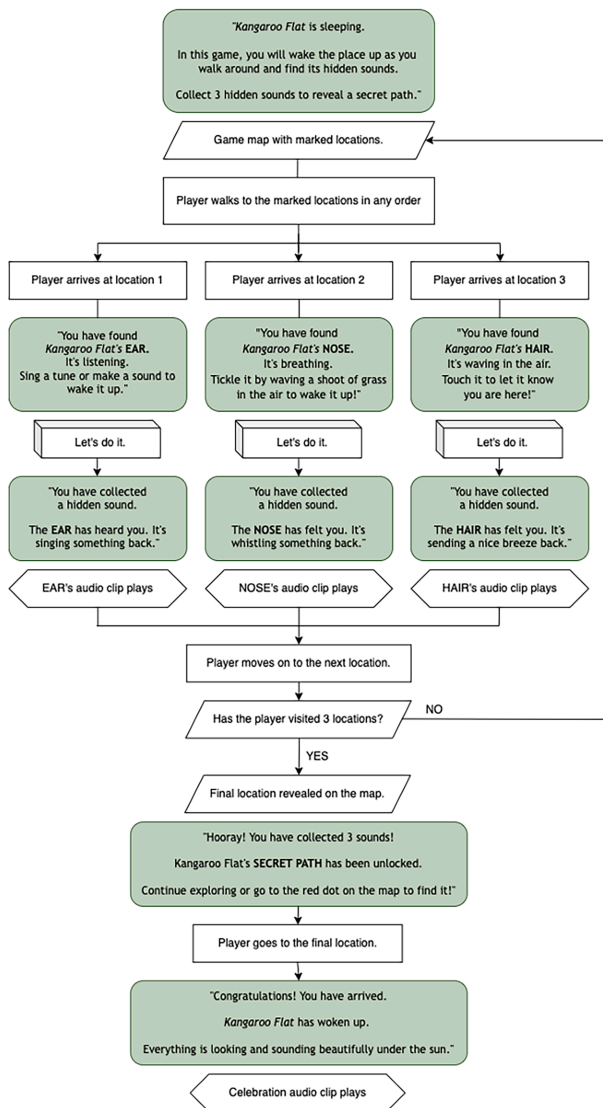


Figure 3. Demo gameplay flowchart by Uyen Nguyen (2022).

the games: physical and sensory actions, playing together for well-being and a close and engaged reflection of the surroundings. These approaches all acted as invitations connecting people to each other and the site and creating a co-constituted experience of place; play shaping the site and the site shaping the play. As Jeff Malpas emphasizes, Indigenous notions of place emphasise a mutuality between humans and place, a dynamic and relational experience formed through an active engagement. [14] Being together through play formed connections with the site and one another, opening up the parkland in new ways to how the students wanted others to experience it. Although the scope of the games was deliberately kept simple given the short duration of the learning program, they demonstrated the capacity of locative games to play in Country in distinctive and alternative ways.

Conclusion

In examining the design and delivery of this learning program creating locative games, three key findings are shared in conclusion. Firstly, the learning program offers a case study for how young First Nations people harnessed play design and game literacy to create and situate forms of their own forms of locative games in the everyday, lived experience of their local surroundings. With the BFLO teachers now leading the program it is intended this will foster a sense of agency and stewardship of nearby locales as an ongoing placemaking experience. Secondly, the local engagement from the schools and community was fundamental to establishing co-creation methods and a two-way learning approach in which approaches between Indigenous and non-Indigenous participants were developed and shared. Thirdly, as knowledge and expertise of designing locative games develops, it is ultimately intended that the design and experience of these practices and platforms can be shaped and directed by Indigenous principles and perspectives which create new possibilities for intertwining play, place, Country, locality and community together.

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References

- [1] Troy Innocent and Matthew Riley, "The Augmented Bush Walk: Adaptation in Crossmedia Ecologies" *Proceedings of the Second Conference on Computation, Communication, Aesthetics and X: xCoAx* (2014)
<http://2014.xcoax.org/pdf/xcoax2014-Innocent.pdf>
- [2] Dale Leorke, "Location-Based Gaming: Play in Public Space" (London, Palgrave Macmillan, 2019)
- [3] Troy Innocent, "Play about Place: Placemaking in location-based game design" *MAB18: Proceedings of the 4th Media Architecture Biennale Conference* (2018)
<https://dl.acm.org/doi/10.1145/3284389.3284493>
- [4] Jacob Sheahan, Hugh Davies, Larissa Hjorth, "The Art of Tacit Learning in Serious Location-Based Games" *Frontiers in Education* Vol 6 (2021) accessed October 2, 2023
<https://doi.org/10.3389/educ.2021.686633>
- [5] Troy Innocent, "Reaching an imagined better world through urban play" *Overland Literary Journal* (2021)
- [6] Olivia Guntarik, Hugh Davies and Troy Innocent "Indigenous Cartographies: Pervasive Games and Place-Based Storytelling," *Space and Culture - OnlineFirst*, accessed November 18, 2023,
<https://journals.sagepub.com/doi/10.1177/12063312231155348>
- [7] Yalinguth Working Group 'Yalinguth' AR mobile app (2021 - ongoing)
- [8] Carolyn Briggs, Hugh Davies, Olivia Guntarik, Troy Innocent 'TIMeR' AR Audio Walk (2019)
- [9] Troy Innocent '64 Ways of Being' AR mobile app (2021 - ongoing)
- [10] Shalini Watson "New Digital Technologies: Educational Opportunities for Australian Indigenous Learners" *The Australian Journal of Indigenous Education* Vol 42 No 1, 2016
<https://equityhealthj.biomedcentral.com/articles/10.1186/s12939-016-0366-0>
- [11] Graham Atkinson "Dhelkunya Dja Dja Dja Wurrung Country Plan" Dja Dja Wurrung Clans Aboriginal Corporation website, accessed November 11, 2023, <https://djadjawurrung.com.au/wp-content/uploads/2021/04/Dhelkunya-Dja-Country-Plan-2014-2034.pdf>
- [12] Victorian Government and the Dja Dja Wurrung Clans Aboriginal Corporation "Recognition and Settlement Agreement" Victorian State Government website, accessed 5 November 2023
<https://www.justice.vic.gov.au/your-rights/native-title/dja-dja-wurrung-settlement>
- [13] Steven Conway, Troy Innocent, Justin Trounson, Brad Elphinstone and Jordan Gibbs "Designing an Augmented Reality Experience to Increase Awareness of Indigenous Histories and Knowledges" *Journal of Australian Indigenous Issues* Vol 23 Nos 3-4 (2020) Accessed November 3 2023,
<https://informit.org/doi/pdf/10.3316/informit.670731085007877>
- [14] Jeff Malpas "Place and Human Being" 2008
<https://jeffmalpas.com/wp-content/uploads/Place-and-Human-Being-Manuscript.pdf>

Authors Biographies

Dr Matthew Riley is a Senior Lecturer at RMIT University. His practice and scholarship in experimental design, art practice and critical forms of play has been recognised in exhibitions, events and conferences in Japan, United Kingdom, Portugal, France, Austria, Finland and Hong Kong. Riley's creative practice in playable art, urban play, mixed reality games and interactive experiences has been shared in venues, organisations and events including Playable City, Tarra Warra Museum of Art, ACMI, Freeplay, Monash University Museum of Art and Experimenta. With Uyen Nguyen and Max Piantoni, he is a co-founder of the experimental play design collective YomeciPlay.

Uyen Nguyen is animator, designer and lecturer at RMIT University who develops sound-based works, public art, interactive installations, experimental games and urban play. As a PhD candidate Nguyen is researching how play can be harnessed as a design strategy for interaction with sound. Collaborating with leading artists, game makers, creative producers, research partners and cultural organisations, her gallery-based and site-specific works have been shared in national and international venues, events and exhibitions including Experimenta, Tarra Warra Museum of Art, DiGRA, Freeplay and ACMI. With Matthew Riley and Max Piantoni, she is a co-founder of the experimental play design collective YomeciPlay.