Decolonising the Urban Screen: An Argument and Approach for First Peoples-led Content Programs in Massive Media

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ABSTRACT

Urban growth continues to colonise and have devastating impacts on unceded lands and sites significant to Traditional Owners. In the wake of urban expansion, millennia of cultural traditions and culturally significant stories are often concealed or erased as concrete is poured or as lights turn on. The continuing emergence of massive media in the urban environment presents an additional risk for cultural erasure as places turn into screen spaces. We provide an argument for massive media and their content to closely connect with the lands they inhabit by giving voice to First Peoples narratives, and for First Peoples to lead in content creation. To this end, we discuss *The Digital Birthing Tree*, a bespoke content program for a large integrated media façade on Wurundjeri Lands in present-day Australia. The analysis of our case results in six decolonising approaches that help practitioners engage with First Peoples-led content programs in culturally responsive ways. First Peoples leadership in massive media is urgent–not optional–enabling a unique opportunity to share millennia of traditions and knowledge, while responding critically to ongoing destruction and destabilisation of culture, lands and biodiversity.

CCS CONCEPTS

• **Human-centered computing** → *Interaction design theory, concepts and paradigms*;

KEYWORDS

Massive media, media architecture, media façade, reconciliation, decolonisation, First Peoples, Traditional Owners, storytelling

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ACKNOWLEDGEMENT OF COUNTRY

1 INTRODUCTION

Persistent growth of urban population centres around the world continues to have devastating impacts on First Peoples[1]. Lands, practices and traditions are still being sacrificed to colonising cultures and urbanisation that deny Indigenous identity and knowledge [23], and that fundamentally change the experience and appeal of space and place. As a result, millennia of heritage, ways of knowing and connections to place remain inaccessible for future generations and are at risk of irreparable eradication [44]. Despite colonial politics being current and real [53], efforts are being made to build truthful and sustainable relationships between Traditional Owners and settlers, and to provide opportunities to reconnect with country[2]. With informed consent and benefit-sharing ensured [19], possible ways to bridge the gap include co-production of public services [6], self-governance [16] and knowledge sharing [54]. Notwithstanding the political, organisational and professional significance of the endeavour, the respectful "*passing on*" of knowledge is particularly pertinent to ensure knowledge lives on in perpetuity, and inspires communities to become ambassadors of Indigenous ways of knowing [77].

Alongside urban growth, monumental building-sized screens with cinema-like display capabilities increasingly make buildings and spaces stand out through the creative combination of light and technology. The phenomenon is referred to as massive media [20] and has been identified to positively impact appreciation of public space and social life [25, 35, 72]. A majority of massive media manifestations are owned and operated by advertisers, property investors, corporations, or government organisations, each having

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[1]For this article, 'First Peoples' is used to refer to Aboriginal and Torres Strait Islander people of Australia. We also use the terms 'Indigenous' and 'Traditional Owners' to draw parallels with First Peoples worldwide.
[2]'Country' is an Australian Indigenous term that denotes a person's ancestral lands [58].

uniquely curated programs in place to engage and inspire audiences [68, 69]. While the majority seems to serve commercial or entertainment purposes, their capability to display context-specific narratives has been identified in past research [e.g. 18, 33, 65, 78]. But content programs that highlight and connect with First Peoples cultures are nonexistent–Sydney's *#WeLiveHere2017* being one of the few exceptions [20]. In fact, content programs highlighting social issues in professionally operated massive media are only present in a small minority of cases. The observation is perhaps not surprising as displaying this type of messaging on massive media–indeed often operated by the very establishment under scrutiny–may be impossible or may only survive temporarily due to its perceived activist nature, such as through so-called guerrilla-style projections [31, 33], city-hacking initiatives [42] or event-like setup [78]. With content programs on massive media shunning social critique and instead adopting dominant Western discourse, massive media present a risk to exacerbate the impact of colonisation, destruction, oppression and marginalisation of First Peoples cultures.

Should this mean, though, that there is no opportunity for more long-lasting or even permanent socio-critical content across massive media manifestations? Absolutely not. Massive media, as building-sized communication media that are able to address a large audience, present a significant and largely untapped opportunity to strengthen efforts of appropriate reconciliation between First Peoples and colonial culture through carefully curated programs. Drawing on non-contentious tactics embraced by leaders in the *Environmental Justice Movement* [14, 32], we believe that an opportunity exists in merging social critique with culturally educative opportunities in order to pay tribute to knowledge and practice, to promote public debate and to enable collective action.

Our research intersects the realms of communication studies, social sciences and sociology. Therefore, we adopt a reflexive approach [4] to interrogate the broader cultural and societal context of a specific massive media project we have developed. *The Digital Birthing Tree* is a First Peoples-led debut content program for an integrated media façade on the lands of the Wurundjeri People in Melbourne, Australia. We document the intent and outcomes of content design, as well as evaluation mechanisms established and queried that enabled us to give voice to First Peoples cultures appropriately and respectfully.

In this paper, we argue for the decolonisation of media architecture through First Peoples-led content programs. This new direction shifts away from the common commercial and entertainment objectives of massive media, instead leveraging opportunities to highlight cultural identity. First Peoples-led content is an urgent and much-needed answer to ongoing devastation and destruction–not only of culture but also of lands and practice. Therefore, we must start a discussion about harnessing designers with the right tools and techniques, and about implementing policies for future massive media projects to ensure that content reflects cultural narratives and to guarantee that these programs are First Peoples-led in order to support sincere efforts of reconciliation. While this debate is vital within the context of First Peoples culture in Australia, our argument applies to other nations characterised by colonial histories and ongoing suppression of Indigenous culture.

2 GLOBAL CHALLENGES, LOCAL OPPORTUNITIES

Massive media are rapidly earning recognition as a dynamic platform, capable of highlighting civic issues and enticing public participation. While often coined as a mechanism to create conversation and interaction opportunities [e.g. 2, 28, 41, 49, 52], the global showcase of projects has indicated the effectiveness of massive media in contributing to the urgent global debate about the environment, such as climate change, biodiversity loss and over-consumption of natural resources [22, 34, 75]. Most of these projects are rooted in academic research or the result of do-it-yourself 'hacktivist' projects, but a growing movement also seeks to integrate the messaging in professionally operated massive media. A review of the *Media Architecture Institute*'s global awards database[3] suggests the limited quantity of cases includes notable artists and delivers compelling, thought-provoking audience experiences. For instance, *Daan Roosegaarde*'s *Waterlicht* portrays the likely future of risen sea levels[4] while the collaboration between *C+arquitectos* and *In The Air* on *Yellow Dust* enables community members to see and feel varying degrees of air pollution[5]. Foth and Caldwell provide an extensive and critical project overview of and design considerations for massive media in the realm of environmental awareness [34]. They complement the extensive portfolio of other contemporary media artists such as Olafur Eliasson, Stacy Levy, Mel Chin and Michael Pinsky, whose confrontational works re-imagine and re-engineer systems and processes that have contributed to the dilemmas our planet faces today.

Only few seem to not acknowledge the severity and urgency of the global environmental crisis. But as if the climate crisis isn't enough, our world also faces unprecedented social, economic and cultural crises. For instance, income inequality and wealth disparity are increasing in developing and developed nations [13], political polarisation and extremism are on the rise [9, 60], sexual misconduct is rife in workplaces [57] and gender-based domestic violence remains far too common in many societies [38], and as Black Lives Matter protests have shown throughout 2020 racial injustice persists across the globe [63]. Recent media reports also remind us of the ongoing threat to permanent cultural heritage loss around the globe. While war and natural phenomena are contributing factors, much of the world's heritage loss is the result of economic pursuits. Australia may well be the unenviable champion of heritage destruction in 2020, a position certainly fuelled by an unprecedented amount and intensity of wildfires [40]. But the nation has also enabled the destruction of 46,000 year-old artefacts in *Juukan Gorge* to pursue mining interests [50], and a road improvement project continues to challenge the future of several centuries-old sacred birthing trees at *Djab Wurrung* [76]. Their ongoing destruction continues to undermine efforts of reconciliation.

The magnitude of global crises requires us to pause and question where the opportunity is for massive media to provide a visual canvas for the issue at hand and enable engaged, meaningful and transformative public debate. As Garcia notes, critical and dissenting projects that interrogate the effects of war, crime, abuse, disease,

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[3]https://awards.mediaarchitecture.org/
[4]https://awards.mediaarchitecture.org/mab/project/185
[5]https://awards.mediaarchitecture.org/mab/project/75

inequality, human rights and persecution on public life through a form of massive media are largely absent from the current portfolio [37]. Following Garcia's article in 2007 some socio-critical massive media projects have certainly emerged, though their lifespan has usually been fairly limited in time, such as to coincide with a particular public event [26, 78] or in response to emerging news reports [7, 62]. Indeed, Garcia's observation remains a challenge to this day: "if only corporations and public funding bodies would sit up and take notice [of the opportunity to promote] a new type of social world" [37].

In this paper we do not argue we have cracked the code; we will not be presenting a validated solution for media architecture to create a new and better social world. Instead, our review of the design process leading to the public display of *The Digital Birthing Tree* results in a preliminary set of considerations for designers, researchers and operators to ensure massive media decolonise public space by foregrounding First Peoples-led content programs. We envision our argument to sustain further exploration of the reciprocal relationship between entertainment qualities and social critique in massive media. But primarily, we contribute to the field of media architecture by way of introducing tangible approaches that enable critical engagement with First Peoples knowledge and ensure the uptake of massive media rooted in and amplifying cultural connections to place.

3 CASE STUDY: *THE DIGITAL BIRTHING TREE*

In this section we provide context to describe the unique features of Country and the site, and we unpack the design of *The Digital Birthing Tree*. We outline the project narrative, the intended aims and objectives, and collaborative nature of the development process. First Peoples voice, words and thoughts are privileged and foregrounded throughout this article by including quotes in the description of our case. Statements by First Peoples internal and external to the project team are formatted as italicised block quotations. Quotes from the project's Indigenous digital content producer, also the first author of this article, are prefixed by *[SA]*.

3.1 Country and Project Site

Narrm, the area that is now occupied by the city of Melbourne in Australia, covers the unceded lands of the Wurundjeri peoples of the eastern Kulin Nations. The Wurundjeri peoples have lived on these lands for 40,000 to 60,000 years [39]. The region was known for its rich biodiversity in precolonial times. It was an area of grassy woodlands that included river red gum (*Eucalyptus camaldulensis*), black sheoak (*Allocasuarina littoralis*), wattle (*Acacia stricta*) and manna gum (*Eucalyptus viminalis*) [21] and remains the site of a local waterway, now referred to as Bouverie Creek. The waterway ran across the area and ran through the Melbourne central business district before joining the Birrarung, now called Yarra River.

> *Like many of the ephemeral streams, swamps, creeks and rivers which were once dotted all over what is now our city centre, this creek was covered over, negated, annulled, denied. This creek was once a vital part of the Wurundjeri world and the ecosystem of the mighty Birrarung, acting as a lung to clean and renew, a pathway, a water source for all living things. Now concrete.*

> *Bouverie Creek now only exists as an underground watercourse. Eels are still seen at times using this underground highway, seasonally moving through the drains of the University.* – Zena Cumpston (*Barkandji*) in Briscoe [12]

Settler invasion in Victoria from 1835 and subsequent colonisation had a devastating impact on First Peoples communities, cultures, and ways of life. Indigenous people were dispossessed and displaced from their traditional lands and suffered the devastating impacts of settler violence and newly introduced infectious diseases [8]. The impacts include the construction of a university campus and hospital, presenting forms of colonial architecture that have significantly impacted on Traditional Lands. The Wurundjeri peoples, like a majority of Indigenous peoples around the world, have suffered economic and political marginalisation and have been unable to use architecture as a means of claiming or maintaining a territory or land ownership [39].

The site of *The Digital Birthing Tree* is knowledge and innovation district *Melbourne Connect*, built on the once grassy woodlands of Narrm. Part of the University of Melbourne and adjacent to the main University campus, the district is located within walking distance of central Melbourne. Since early colonial times the site contained a hospital specialising in health and well-being of women and newborns. Since early 2021, the newly developed site now provides space to the Faculty of Engineering and Information Technology, student accommodation and a range of industry tenants. A flagship tenant at *Melbourne Connect* is Science Gallery Melbourne, a permanent on-site exhibition venue that delivers regularly changing programs of art-and-science exhibitions, experiences and events. *The Digital Birthing Tree* is the debut content program for *The Digital Bricks*, a media façade that is integrated within the main entrance to Science Gallery Melbourne, and consisting of 226 high-resolution LED screens dispersed within the ground floor brickwork (see Figure 1). Previous publications illustrate the participatory design and construction of *The Digital Bricks* [79].

> [SA] *Digitally enabled, The Digital Bricks unpack the notion of "if these walls could talk". As digital content producer, I felt it was my remit was to tell a story with these bricks that related to the history of the former hospital site where the University, and its partner organisation Science Gallery Melbourne stand. But the inaugural content piece should also represent First Peoples stories and uncover other stories about the place.*

3.2 From Place to Narrative

Prior to construction commencing, consulting historians were engaged to thematically analyse the site's history. The particular focus was on revealing stories related to its past as a hospital, resulting in a number of ways to honour and integrate legacies into the district's buildings. One suggestion was to draw on extensive photography within the University's collections and hospital archives, and display a photo wall or portrait collages from a large amount of smaller photographs.

> [SA] *I felt conflicted about choosing some faces to display and others' not to. The problem grew in my mind particularly as I considered the stories we had access to and*

Figure 1: A recess in the brickwork serves as the entrance into Science Gallery Melbourne. Screens are embedded in brickwork flanking the glass doorway. Close-up of individual screen in top right corner.

Figure 2: River red gum in South Australia, with features similar to birthing trees. Photo credit: Jacqui Barker, CC BY 2.0 via Wikimedia Commons.

> *others we didn't. For some time I imagined highlighting the first Aboriginal woman to work at the hospital, then the first Aboriginal woman who became a registered nurse at the hospital. From my own experience working on community projects, use of people's faces is an effective approach, but it can accidentally become exclusionary rather than one of solidarity. But really, it was an artist's rendering of the building façade that is largely responsible for the direction that this content story took.*

The decision to omit portraits from the narrative subsequently triggered a shift towards visual impressions of Victorian nature and country. Further motivation for this revised design was due to growing outrage and unrest in regional Victoria for the planned removal of a series of trees at the culturally significant site *Djab Wurrung*. Members of the Dja Dja Wurrung community were fighting to protect sacred trees [67], including a 'Directions' tree and a 'Birthing' tree (see Figure 2).

> [SA] *The image of glowing bricks at either side of the entrance to the district with its triangular recess leading inside then also started to illuminate a different connection. I thought in gratitude and pride of the first Aboriginal woman who received training at the former hospital. I thought of the hundreds of other Aboriginal women through the mid-20th century who were afraid of hospitals and the power they could quickly yield over the woman's body, and if she was pregnant, her child too. A giant grey eucalypt tree with a similar triangle from a feature on the Djab Wurrung site with a cavernous opening, a birthing tree, towering yet beckoning at the same time, merged and overlapped with the layout of The Digital Bricks.*

During design development we analysed Adams et al.'s study of South East Australian First Nations women's birthing knowledge and practice [1]. Insights strengthened our appreciation of the site's importance as a former hospital site, as well as a site that is ideally placed to recognise First Peoples' birthing practices and connections of newborns to ancestors and Country. Along with the visual similarities with birthing trees afforded by the building entrance and growing interest in depicting native scenery, observations from Adams et al.'s work informed the title of the content program, i.e. *The Digital Birthing Tree.*

> [SA] *It exposed an opportunity to honour Aboriginal women's contribution to the health system and also honour the women who weren't represented in it. To honour and celebrate those women who had safe births or who triumphed over other illnesses. To honour the migrant women whose translation services were vital contributions to safe births and healing. To honour ecosystems of support that women offer one another through official or unofficial means that have been crucial to our survival. To honour the ownership women have only very recently claimed over our bodies and our stories, thereby contributing to the reclamation and validation of the self.*
>
> *This to me revealed a unique possibility for The Digital Bricks to embed Aboriginal and female perspectives into the fabric of the building. An intervention into the sandstone university system on behalf of the women who came before. A most radical act. It seemed the story was always embedded into the project and I was pleased and humbled that it revealed itself to me.*

3.3 Intercultural Co-Production

Third party visualisation experts were briefed by the project's digital content producer about the overall direction of the narrative that was envisioned. The brief included references to a selection of interactive media installations across cultural and other sectors that 'disrupted' within First Peoples media-making, as well as other installations that aligned with the vision from an aesthetic, innovative or generally engaging perspective. Visualisation experts suggested the use of machine learning to input large volumes of data and output generative 'machine learned looks' (see Figure 3).

> [SA] *I started to see how this could fulfil our agenda: using machine learning to put in large volumes of data of*

native plants, say, could enable us to imagine a world where the colonial project hasn't interrupted First Peoples practising their culture, a world where more indigenous plants may have and be flourishing. Drawing on the bank of images that had been shortlisted for the historical project, we negotiated to avoid any of them that featured a particular person's face, as it was clear that we didn't want to feed in people (particularly Aboriginal people) and let an AI create a pan-Aboriginal person to feature in the experience, as it could cross the line of being inappropriate or insensitive. Some sort of digital blackface perhaps.

In response, candidate image collections within the University's archives were identified to complement the narrative arc that was being created, i.e. historic maps, herbarium, engineering faculty and medical museum. Upon our request, curators and managers of these collections provided access to (historical) images that best align with First Peoples, the site's history and the University's colonial history. A historic collection of gum tree botanical drawings were also included in the image collection (see Figure 4(a)). Together with contemporary photos of bark, trees and landscape textures the collection balanced out the large volume of colonial and settler imagery. The more textural elements of Country began to characterise the piece (see Figure 4(b)).

3.4 Consultation and Feedback

Processes of consultation, development of cultural frameworks and the formation of Indigenous advisory groups have been instrumental in fostering a First Peoples-led approach to sharing local Indigenous narratives and curatorial opportunities for public engagement. Our team sought guidance from an Indigenous Advisory Group around narrative development and engagement with the Indigenous community, and to review historical stories and potential interpretations. The Advisory Group included Traditional Owners from the Wurundjeri land council, academics and historians, providing advice on the development of heritage interpretation projects associated with the Indigenous history associated with the Melbourne Connect site and the overall approach to Indigenous narrative development and engagement with the Indigenous community. Impact of the Advisory Group was instrumental to the cultural design and experience of *Melbourne Connect*, influencing place-naming in the use of *woiwurrung* language, landscape design to use indigenous plants, and storytelling to create interpretations of Traditional Lands, local biodiversity and how Wurundjeri people connect with the landscape.

[SA] *The consultation process made it clear to me how many people had ties to the hospital: one of the Indigenous artists creating artwork for the innovation district had lived opposite earlier in her life, and another was creating her own image of a birthing tree–a strong image in her practice. Others were born at the hospital. It became obvious how far-reaching the leaves and branches of the tree were.*

Transparency and trust were fundamental characteristics of the community consultation stage of the project–ensuring curatorial teams and collections managers understood the intention of the project and the new meaning that would be given to images of historic items in their collection. Working against the tendency of siloing in large organisations we remained aware of the many stakeholders involved in the project–including the innovation district and the University as a whole–and the high level of visibility of this project as a First Peoples storytelling exercise.

[SA] *I shared examples of how the AI, trained in reading images from the herbarium, could overlay a completely computer-generated aesthetic onto a colonial map. I desperately wanted the examples to convince the University Elders and Indigenous peers that we were still achieving and furthering a particular agenda. Decolonising topographies.*

One outcome of consultations with Indigenous advisory groups involved the inclusion of an animated transition of smoke (see Figure 4(c)). Similar to in-person traditional smoking ceremonies, the digital smoke would function as *The Digital Birthing Tree*'s Welcome to Country ceremony[6].

[SA] *In my family new houses are smoked before you move in, or if something has gone wrong in the place you can try to smoke it out. I felt that the smoke symbolised not only the welcoming entry into a new space, but it also was a homage to the women whose stories associated with the former hospital were not good, or whose stories had been forgotten.*

In addition, Indigenous advisers suggested the creation of a participatory platform that sits next to *The Digital Bricks* and that invites community members to submit, share and read their own stories of connection to the site, the former hospital and Country.

[SA] *I call this an 'Online Keeping Place', a website that accepts text, audio or video contributions of stories from people who have strong ties to the site. Knowing that visualisations on The Digital Bricks can only achieve so much, a website where people can contribute their own stories will enable collective reflection and autonomy for people to have that experience on their own time.*

3.5 Realisation

The final design of *The Digital Birthing Tree* consists of a 24-minute video, rendered at the full resolution of *The Digital Bricks* media façade. In order of appearance, the individual chapters consist of (1) a digital smoking ceremony, (2) Victorian landscapes and bark textures, (3) Miegunyah and herbarium botanical items, (4) campus architecture and maps, (5) medical innovations, and (6) engineering progress (see Figure 4(a)–4(c)). As such, content gradually transitions from precolonial knowledge to Western colonisation and occupation of country. The content program is scheduled to be displayed at set times during morning and evening rush hour as a way to remind commuters and passers-by of the significance of the site. The designed outcome is not the focus of this article; additional visuals can be consulted at the project's MAB20 Media Architecture Award page[7].

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[6]A 'Welcome to Country' occurs at the beginning of a formal event that takes place on Traditional Lands. A Welcome to Country is delivered by Traditional Owners to welcome visitors to their Country.

[7]https://awards.mediaarchitecture.org/mab/project/222

Figure 3: Representation of 'machine learned looks' in a map of Melbourne. The aesthetic of the original map (*left*) is regenerated by way of neural style transfer that applies aesthetic characteristics learned from several thousand items in the herbarium collection (*right*). Image reused with permission from REELIZE.STUDIO.
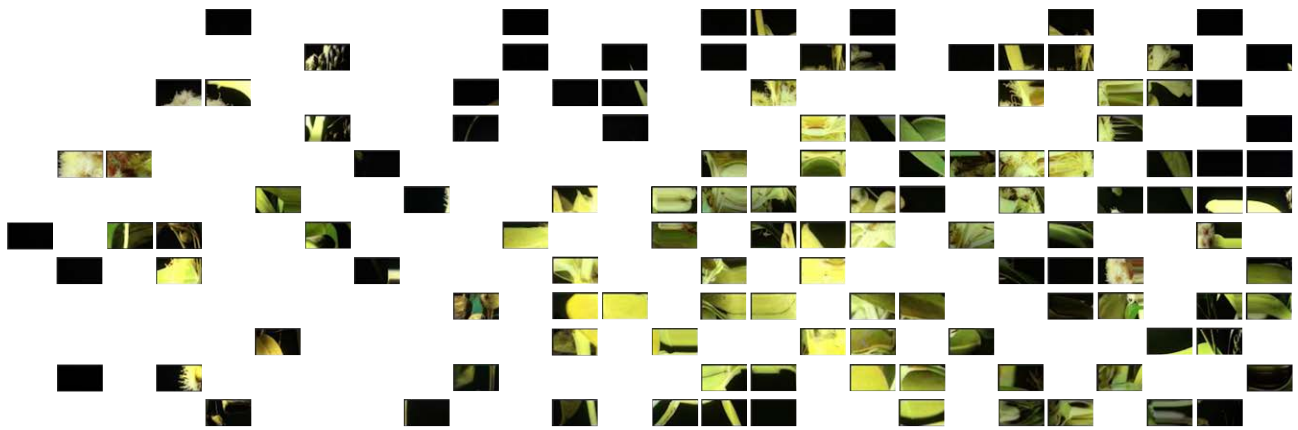
4 DISCUSSION: DECOLONISING MASSIVE MEDIA

The process of conceptualising, designing and realising *The Digital Birthing Tree* builds upon the notion of 'culture-making' [71], i.e. a productive relationship that is characterised by co-production and participation in a multidisciplinary team of Indigenous and non-Indigenous collaborators. As Myers notes, the approach enables a dynamic, two-way flow of cultural translation [56]. Maree Clarke, a Yorta Yorta, Wamba Wamba, Mutti Mutti, Boonwurrung woman, artist and curator, also refers to culture-making as a form of communal sharing:

> *I am more than happy to open my home and invite people over. [...] Then you're sharing knowledge and skills, not only with Aboriginal people, but with non-Aboriginal people who get what it's about. It's about sharing knowledge and passing on cultural knowledge and creative art practices.* – Maree Clarke (*Yorta Yorta, Wamba Wamba, Mutti Mutti, Boonwurrung*) in Thorner et al. [71]
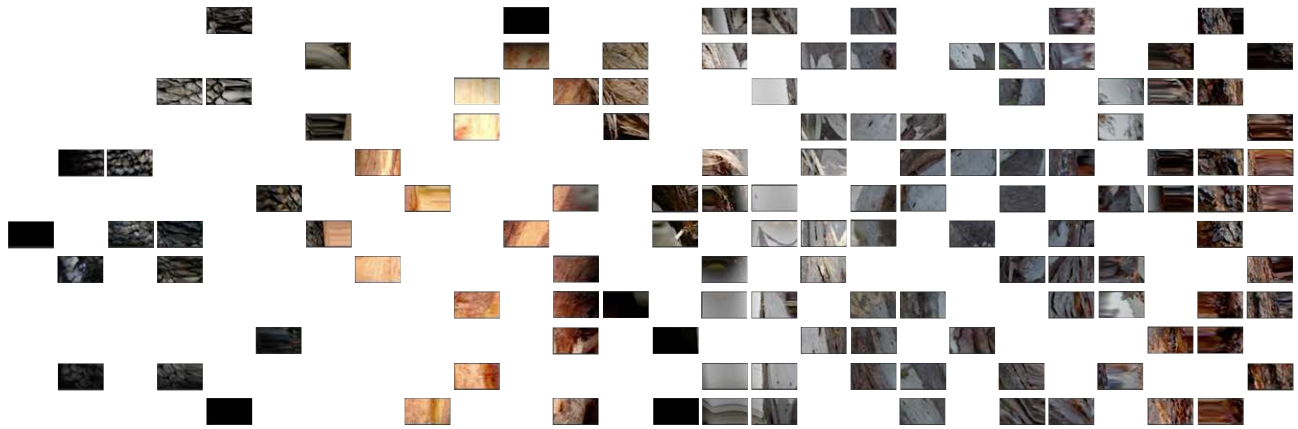
We believe in the value, relevance and meaning that co-production has delivered to *The Digital Birthing Tree*, effectively delivering a platform for truth telling and space for First Peoples' stories, pedagogies and ways of knowing to be represented. First, in reflecting upon Maree Clarke's words, we recognise that *The Digital Birthing Tree*

in its own right enabled a new way of passing on cultural knowledge and creative art practice. But our process of co-production also facilitated knowledge sharing with and among team members. The collaboration has been rewarding for non-Indigenous team members as an opportunity to learn from young Indigenous community members–some of whom are among the authors of this article–about First Peoples knowledge, praxis, and relationships to land and tradition.
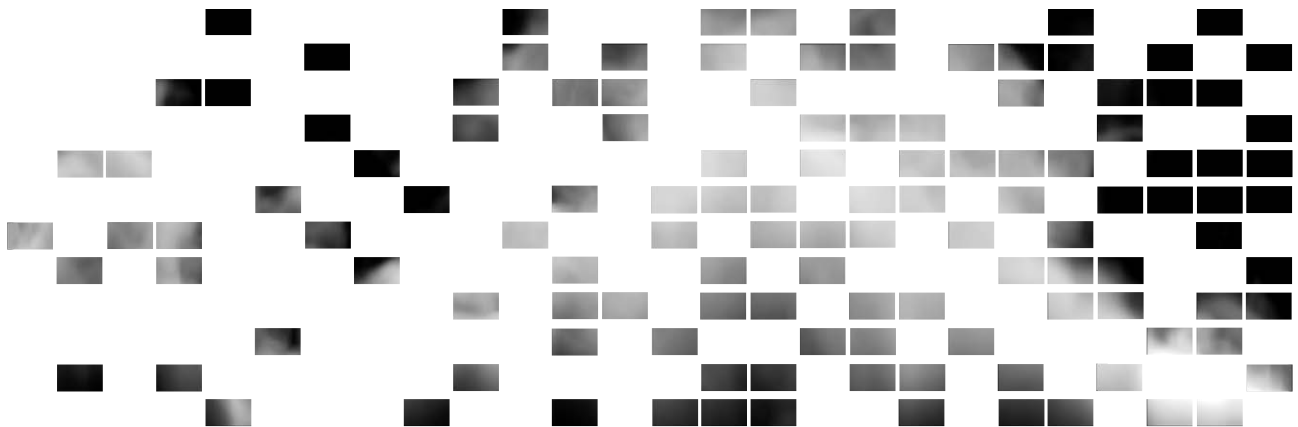
Our work reveals an opportunity for content programs in massive media projects to be specifically curated in order to highlight Indigenous knowledge and practice that reflects site and place. We coin these as 'decolonising content programs' that engage audiences in understanding life and society in ways that challenge dominant perspectives and that recover marginalised knowledge, practice, and identity. In fact, the continuing threat to Indigenous cultures suggests decolonising content programs should be considered a requirement for massive media manifestations to reflect the traditions that characterise the lands they inhabit–as a bare minimum to contribute to the decolonisation of public space. Many councils have adopted the 'Percent for Art' scheme as a mechanism to ensure a percentage of the capital costs of building projects is set aside for the provision of artworks [64]. Over the years the scheme has enabled signature massive media projects to come to life and positively contribute to the experience of the built environment.

(a) Fragment of *Grimwade* chapter. This chapter displays unique items from The Russell & Mab Grimwade 'Miegunyah' Collection, specifically focusing on botany prints and drawings that gesture towards the region's colonial history.

(b) Fragment of *Eucalyptus Bark Textures* chapter. In this chapter detailed photographs of the distinctive texture of native gum tree bark are merged and interpolated to reflect characteristic Victorian and Australian flora.

(c) Fragment of *Smoke Ceremony*. This chapter opens *The Digital Birthing Tree* content program through animations of vapour and smoke that reflect traditional smoking ceremonies.

Figure 4: Single frame snapshots of three chapters that form part of *The Digital Birthing Tree*. Illustrations display spatialised content mapped onto digital bricks. High resolution and animated visuals are accessible via Science Gallery Melbourne. Images reused with permission from REELIZE.STUDIO.

In a similar vein, councils, operators and owners must consider developing and implementing decolonising content policies, in collaboration with Indigenous community members, that require a reasonable portion of massive media content to reflect Indigenous knowledge.

As a collective of Indigenous and non-Indigenous collaborators, we reflect on the design process and propose six decolonising approaches to integrate First Peoples-led content programs within massive media. Reflections are guided by our close involvement in all stages of the project. Figure 5 presents a model of First Peoples leadership that reflects our process to achieve relevant site-specific outcomes. The model prioritises ways to deeply embed First Peoples in design processes and illustrates how site-specific outcomes enable successive opportunities. Our six approaches are intertwined and interconnected; they are all equally vital in efforts to achieve successful and respectful outcomes.

4.1 First Peoples-led Decision-Making

Our argument revolves around encouraging sincere and respectful adoption of decolonising content programs on massive media in substantive rather than tokenistic ways. We believe sincerity and respect are only achieved by ensuring First Peoples fulfil leading roles and are recognised as executive and autonomous decision-makers in the process of designing and curating content. Embedding Indigenous ways of knowing and facilitating the expression of Indigenous knowledge from the very outset of a project ensures content transcends beyond the mere 'spectacular'; i.e. where Indigenous presence is not simply 'gestured' towards [6] in programs that reinforce non-Indigenous people's experience of Indigeneity as "cultural not political, visual not otherwise sensorial, passively observed not participatory" [5]. This word of caution is particularly relevant for massive media which—through their visual qualities—exacerbate the risk that First Peoples content programs may be perceived as a mere 'image of diversity' [3] or a 'photograph of multiculturalism as a mosaic' [70] rather than a sincere endeavour to connect with lands and knowledge. As a result, the premise of decolonising massive media centres around First Peoples-led decision-making in two ways, i.e. through First Peoples-led design and through community consultation. But we also highlight the probability of pursuing First Peoples-led content programs for opportunistic reasons or in the absence of guiding cultural frameworks and policies.

4.1.1 Policies and Cultural Frameworks. Prior to the initiation of this project, the client developed a First Peoples Cultural Framework [12] in partnership with a First Nations-led organisation that focuses on science, technology and digital innovation. The vision for the Framework is to ensure that Indigenous peoples and cultures are respected and recognised as a vital part of a vibrant, accessible and inclusive community, one that gives First Peoples of Australia and throughout the world the right to self-determine. Key guiding principles were established to cultivate a respect of, build lasting relationships with and create meaningful opportunities for First Peoples and cultures.

The Framework now ensures employment opportunities for First Peoples as staff members, artists and academics, consultants, advisers and guest curators, while also providing culturally safer work environments through inter-generational mentoring programs. Our team further recognises and supports proper protocols in relation to Indigenous Cultural Intellectual Property rights, including respect for Indigenous culture and heritage, maintenance of cultural integrity and respect for beliefs, and respect for Indigenous individuals and communities.

Decolonising approach. The risk of our argument for First Peoples-led content programs is that the model will be adopted by organisations for opportunistic reasons or without sufficient knowledge and safeguards in terms of culture and protocols. Therefore, First Peoples-led content programs should sit within other models, activities, commitments and initiatives that ensure better relationships with First Peoples and respect for culture and knowledge. Organisations in ancestral territories must seek to establish Reconciliation Action Plans, containing practical actions to drive contributions to reconciliation internally and in the communities in which they operate.

4.1.2 First Peoples-led Design. With the narrative design of *The Digital Birthing Tree* led by a First Peoples woman, the content program gained a unique focus on cultural narratives, colonial history and feminism–a shift to evocative and reflective characteristics that created sovereignty through the act of storytelling. *The Digital Bricks* actually provided an opportunity to imagine an alternative world where the colonial project had not disrupted First Peoples culture and country:

[SA] *Just the threads of deep time, knowledge of country, place and landscape, uncovering stories known and unknown, from before there were colonial buildings on the location of the hospital, and during.*

While the creation of the narrative arc and curation of collection items have been fully led by an Indigenous person, *The Digital Birthing Tree* project relied on shared insights from Indigenous and non-Indigenous team members in disciplines such as curatorship, research, collections management, architecture, graphic design, software development, photography and engineering. This process has facilitated a form of intercultural co-production in a sovereign space [71], i.e. by way of processes that are directed by First Peoples and where knowledge exchange and learning are actively participated in by all. As a result, not only the resulting content program but also the process that was followed to develop the content program in itself facilitated creating something that makes tangible important and promising aspects of decolonisation, such as attitude changes among those present, and deeper understanding of the need for reconciliation.

> Decolonising is not a singular event. It is an ongoing process that requires non-Indigenous visitors to learn Aboriginal histories, how they are implicated in them, and how they might re-imagine various art forms as expressions of sovereignty. – in Thorner et al. [71]

We note that alternative design approaches may exist to achieve similar outcomes, though we stress the vital importance of leading roles for First Peoples in design and curation of decolonising content programs. Their leading role ensures the most accurate and effective reflection of connections to lands and implications of colonialism.
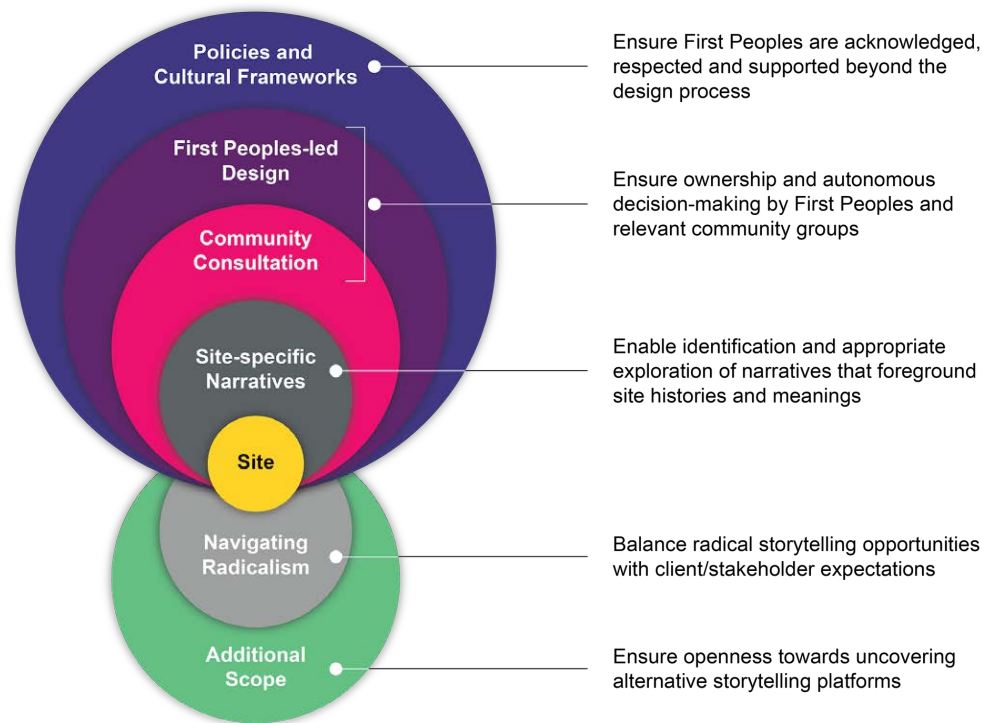
Figure 5: Model of First Peoples leadership that supported the development and implementation of *The Digital Birthing Tree*. The model highlights the need for protocols and consultation mechanisms to be in place, as a method to ensure substantive rather than tokenistic First Peoples engagement.

Decolonising approach. Indigenous knowledge has been and continues to be exploited by colonisers for commercial, cultural, medical and environmental reasons [11]. But through deep knowledge of a problem domain, insight into traditions and practices and experience living in colonised lands, First Peoples are ideally placed to provide curatorial and executive direction to design, content, narrative, storytelling and other vital components of decolonising content programs. Therefore, as a global community of creatives, practitioners in massive media content and design must take a radical stance. We must recognise the essential and unequivocal prerequisite to bestow ownership over decolonising content programs on members of First Peoples communities and support efforts of reclamation. We must go well beyond 'engaging' and 'liaising'. Instead, leading roles for First Peoples ensure that massive media projects "*make place*" in permanent ways, by highlighting Indigenous practices and knowledges [39], enabling First Peoples to exercise their right to the city.

4.1.3   First Peoples Community Consultation. Traditional Elders play a vital role in protecting and guiding Indigenous communities through their strong connections with the community, spirituality, physical and emotional well-being, and wisdom gained through life experiences [48]. As the '*keepers of Indigenous knowledge*' [27] Elders are essential partners in the process of resisting to colonialism and remembering wisdom, histories, skills, and practice [43]. Similar to Indigenous community consultation mechanisms in place across the globe [e.g. 47, 48] we accessed mechanisms that the owner of

The Digital Birthing Tree, the University, established in order to meaningfully and respectfully connect with Traditional Owners and Elders on matters that relate to Indigenous knowledge and practice. Consultation with Indigenous communities, in addition to First Peoples-led design, helps to avoid cultural bias by Western-oriented designers and researchers [15] while also avoiding displacement of traditional ways of knowing by Western models of knowledge [17], and–if done well–ensuring equal power by project teams and First Peoples communities [10].

The formal and informal consultations with First Peoples proved effective in focusing the narrative development of *The Digital Birthing Tree* through sharing and feedback. Numerous connections to the site's recent history were revealed, indicating the significance of the site among the community. But consultations also introduced new possibilities for First Peoples-led narratives, such as inclusion of a digital smoking ceremony as an opportunity to cleanse the site and allow visitors to enter in the proper way, and the need to provide a digital keeping place of community memories in addition to the display opportunities afforded by *The Digital Birthing Tree*.

Decolonising approach. At the heart of reconciliation efforts are trusted and respected relationships between the non-Indigenous community and Traditional Elders. Designers must seek to consult Elders in the early stage of content program development, enabling the Indigenous community to guide the direction and assess a project's ethical impact. Our process of consulting with

Elders builds upon consultation practices and protocols well established within the University–as is common practice within other national organisations and other nations [e.g. 15, 43, 47, 48]. In the absence of pre-existing consultation groups, we recommend establishing long-term collaborations with local Indigenous Elders, their representatives or relevant community organisations. This is far more than a box to tick: Elders and community consultation is a required procedure to guide design directions and to ensure content programs are culturally appropriate and exhibit cultural competence.

4.2   Maximising the Role of Site-Specificity

Even though a major challenge remains to display socio-critical projects onto infrastructure owned and operated by the establishment, massive media provides the advantage of intrinsic site-specificity. Through their firm and permanent connection with the built environment, massive media deal with the environmental components of their place–from vegetation and urban appeal, to history and connections as experienced by various communities. Serra argues that scale, size and location of site-specific works is determined by their place [66]; a viewpoint commonly accepted in disciplines such as architectural design and place-making. Massive media adds the consideration of content to the equation, as previously highlighted in scholarly work [75]; place fulfils an instrumental role in influencing the content that is on display, but that content in turn influences how the place is experienced by its users.

In other words, one would not relocate a massive media manifestation or its content without questioning how the new place impacts its expression and experience. But the strategic opportunity for massive media is that through their site-specific nature, the site or place provides a source of inspiration for the content or social narratives that will be on display. In some instances, one may consider to focus on the hyperlocal scale [30, 78], bringing to life specific narratives that matter to the most proximate community (e.g. the significance of a historic building to a local community). But some places may necessitate casting a wider lens onto the regional narratives, so as to foreground cultural heritage, fauna and flora, or socio-cultural themes. Or, as exemplified in *The Digital Birthing Tree*, one may shift between various scales to reflect broader, regional and more complex narratives.

Decolonising approach. Massive media content design teams need to carefully assess the most valuable scale that is considered in the pursuit of relevant Indigenous narratives. The storytelling 'site' is likely to stretch beyond a single city block. While policy and guidelines may not prescribe the exact extent of site-specificity, a wide range of requirements may be considered to reveal a suitable scale. Besides First Peoples community consultation, teams may also seek to engage with heritage interpretation reports, archival research and local community engagement. It is reasonable to expect that in most instances a combination of techniques is applied to ensure a variety of perspectives, knowledge and information is captured. There is no magic formula but to meticulously investigate and understand First Peoples connections to a site and the narratives that emerge from the process.

4.3   Navigating the Opportunities for Radical Content

The content program for *The Digital Birthing Tree* combined a series of chapters that, on one hand, reflected Indigenous culture while also reflecting Western–indeed colonising–knowledge and traditions through its inherent connection to a university. We could have taken much more drastic steps to holistically enact a decolonising practice. Tuck and Yang as well as Fanon may argue that, in order to justify the decolonising nature of our work, we would have had to embrace a necessarily unsettling content program that illustrates the disastrous impact of settler colonialism–a content program that is characterised by disorder, dispossession and displacement, one that implicates everyone and that does not go unnoticed [24, 73].

There is a strong case to be made for more explicit explorations and depictions of the devastating impact of colonisation on massive media–through *The Digital Birthing Tree* but also other manifestations in the future. Racial abuse, inequality and discrimination, forced assimilation and the inter-generational trauma that these events triggered are some themes that could have been explored. But upon consideration of some factors, these themes were not pursued in this version of *The Digital Birthing Tree*. For instance, we were cognisant that more subversive, dark and evocative content in the content program would likely put our team's Indigenous digital content producer under emotional pressure. It is not unreasonable to assume that pressure would arise during the design and curation process as materials are collected, continue throughout the narrative development as materials are reinterpreted and connected, and likely proceed well into the future as *The Digital Birthing Tree* goes live and as it decorates the screens at the entrance to a workplace for many hundreds of people–many of whom have Indigenous heritage. As *The Digital Birthing Tree* goes live we will monitor perception and attitudes among onlookers. Findings will serve as guidance for future programs in which more disruptive themes might emerge if the time is right.

We were also conscious of unwritten expectations by the client (and funder) and related stakeholders, i.e. the University and the innovation district's tenants. This is a reminder of the point made earlier in this article about the predominantly short-lived nature of activist content on massive media. The establishment that owns and operates massive media is likely to veto content programs that may be too unsettling or too critical of colonisation. However, with that being said, we have never encountered a situation where decisions were vetoed or even scrutinised extensively–but we can imagine vetoes may occur in some instances. Perhaps we were too careful. However, we believe that *The Digital Birthing Tree* has been a worthwhile effort to 'test the waters' and build relationships, i.e. for us to learn how First Peoples-led content programs can take shape in the future, which procedures should be followed or created, and what the level of appetite is among relevant stakeholders.

Let's also remember the colonialism created by a university; physically through presence on Traditional Lands and imported architectural appearance [39] and epistemologically through a focus on hypothesis testing and empiricism rather than relational knowledge acquisition [51]. Within the context of a university, *The Digital Birthing Tree* is a subversive and radical intervention:

[SA] *The elements of 'rewilding' the building through this digital experience came together. By embedding these different chapters–colonial and precolonial–back into the fabric of a building via animation onto screens, we were disrupting the sandstone University.*

Decolonising approach. While we advocate for massive media to embrace unsettling content programs to convey the impact of colonialism, we also recognise that balances must be sought. First and foremost, safety of First Peoples collaborators and the wider community must be ensured. Trauma experienced by First Peoples upon colonisation is inter-generational, with its impact exacerbated by ongoing inequality and the resulting significant cultural load [46, 61]. Project teams must make sure that First Peoples are adequately supported in the process of developing decolonising content programs, while also acknowledging that changes to programs might occur if themes expose traumatic experiences or effects. We also suggest proactive engagements with clients to ensure that content programs can in fact expose the realities of colonisation but also illustrate an awareness of client expectations, such as to align with broader public engagement programs, cultural strategies, and ambitions in terms of public perception and brand recognition.

4.4 Broadening the Scope of Massive Media Content Programs

In our article we reflect upon the importance and hands-on techniques to ensure massive media content programs do not reinforce colonising cultures and practices. While a certain degree of activism may underpin this article and the idea of decolonising content programs, we believe it is common sense: as massive media increasingly occupies lands of traditional importance, something should be given back in ways that enable audiences to embark on a narrative that is educational, inspiring and empowering. One main strategic advantage provided by massive media is that the phenomenon already employs a form of 'media' to convey a narrative. As Gamson and Wolfsfeld note, media are instrumental in their role to relay messages to large audiences and to mobilise followers [36]. As recent history has illustrated in painful and pleasant ways, this assertion holds true for print media, broadcast media, online social media, and out of home media. We believe that the observation heralds a unique opportunity for building-sized screens as a form of massive media: reaching large audiences and thereby enabling the urban public to reflect, remember and respect the cultural and historical traditions that the urban fabric is founded upon.

Our process also revealed that decolonising content programs should not be seen as an endpoint or a single project. As Elders suggested during consultation, the community narratives that underpin *The Digital Birthing Tree* necessitated the creation of a *Digital Keeping Place*. This community-focused and web-based initiative enables the ongoing collection of stories through video, text and audio. While stories may potentially feed in to *The Digital Birthing Tree* at some point, its primary purpose is to provide a novel and contextualised project that builds upon the tradition of Indigenous storytelling practices.

Decolonising approach. Massive media content programs can–and probably must–illustrate a healthy degree of activism for themes that require urgent, ongoing public scrutiny within the specifics of their site–even if the mere proposal of such content surprises, challenges or unsettles a client that had anticipated financial returns through advertising or reinforcement of a corporate image. As a community of practice, we have proven to engage creatively and sincerely with risk, turning the built environment into what McQuire refers to as 'communicative cities' [55]. In recent years, some have called for massive media to draw attention to biodiversity loss [34] and climate change [22, 59], others have identified potential to illustrate refugee displacement [78] and police misconduct [29]. These are bold first endeavours that demonstrate an opportunity for massive media to distinguish itself from other forms of mass media and urban screens through an unequivocal progressive agenda; one that foregrounds knowledge and history in ways that challenge contemporary culture, urban expansion and irreparable damage to lands and practices.

Broadening the scope of massive media also necessitates scrutiny of the need for massive media in itself. Identification of the need to develop a web-based *Digital Keeping Place* as an additional entry point to community narratives illustrates the importance of First Peoples community consultation as well as the need to maintain an open perspective. In some instances, a massive media manifestation may not be the most suitable platform for a particular form of storytelling, or it may need to be complemented by other channels to be effective and culturally responsive.

5 CONCLUSION

In this article, we studied the design and development of *The Digital Birthing Tree*, a First Peoples-led content program for a massive media manifestation in Melbourne, Australia. The program gives voice to Indigenous heritage and ways of knowing as well as colonial impact on a large integrated media façade. We critically analysed our case and presented an argument for appropriate and respectful content on massive media manifestations that occupy Traditional Lands.

We provided six decolonising approaches to assist practitioners in the field of media architecture and massive media with the design, development, review, implementation and ongoing evaluation of First Peoples-led content programs. Their overall objective is to enable broader understanding of Indigenous sovereignty and contribute to ongoing efforts to decolonise public space. In that regard, the approaches go well beyond established art commissioning practices: rather than hiring artists based on a client's request, those who seek to engage First Peoples in creative work, need to invest time and resources in building relationships, racial literacy, trust and partnerships in order to ensure agency and cultural safety [45]. But clients must also be conscious of the fundamental right of all peoples to self-determine, as affirmed in the 2007 United Nations Declaration on the Rights of Indigenous Peoples [74]. In other words, they must be willing to grant substantive ownership to First Peoples over content programs, narratives and design direction, with guarantees in place for sovereign and autonomous decision-making and appropriate protocols to seek guiding expertise from Indigenous Elders and communities.

We illustrated the benefit of transferring authority and consultation to reveal new content opportunities and unique ways for

communities to engage–beyond the canvas of media architecture. But we also cautioned against unconstrained and unsafe adoption of First Peoples-led content programs: injustice, oppression and dispossession have created significant and unresolved intergenerational trauma. Hence, without appropriate protocols and culturally responsive attitudes First Peoples-led content programs run the risk of exacerbating personal and community traumas of those involved in design processes–potentially even extending to the wider community that is addressed by or confronted with massive media manifestations.

First Peoples leadership over massive media storytelling is not optional but rather an urgent and required response to ongoing destruction and destabilisation of millennia-old cultures, knowledges and lands–much of which occurs in the wake of relentless urban expansion and the growing, profit-driven screen culture. Massive media have proven their potential to draw attention to socio-critical, inclusive and progressive agendas. While these agendas are often rooted in Western traditions and visions, now is the time to embrace, acknowledge and connect with First Peoples perspectives, experiences and narratives.

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