

Strengthening Victoria's
Connections with Southeast Asia:

The art/s of exchange



THE AUSTRALIAN
APEC STUDY CENTRE
Asia Pacific
Economic Cooperation

In partnership with
 **RMIT**
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Asia Trade and
Innovation Hub



Education
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Foreword and acknowledgements

This report was written by Professor Jules Moloney from RMIT University, with assistance from Dr Bree Trevena and Anna Huggins from Left Bank Co. The research underpinning the report was led by Dr Li Ping Thong and Dr Jane Button from RMIT University.

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This report is one of three produced by RMIT University and the Asia Society Australia designed as roadmaps to leverage the region in Victoria's social and economic recovery. The three reports consist of a macroeconomic report on trade and investment opportunities for Victorian business in Southeast Asia, a report on Vietnam's Industry 4.0 opportunities for Australian Business, and this companion report on online cultural opportunities for the galleries, libraries, archives and museums sector. Collectively, the reports are intended to create opportunities for ongoing engagement, trade missions for Southeast Asia and to support Victoria in its strategy for the region.

Expert advice for this report was provided through a Steering Group with representation from the Australian APEC and RMIT study centre, the Asia Society Australia and Creative Victoria.

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Executive
summary



A new narrative for online culture

The COVID pandemic threw Victoria's publicly funded cultural institutions into the digital deep end, creating unprecedented disruption but also acting as a catalyst to present collections in new ways and new places.

This report examines how that disruption impacted online distribution of, and access to, digital cultural services across the state's many Galleries, Libraries, Archives and Museums. It documents how the forced period of online experimentation has transformed this creative industries ecosystem known collectively as the GLAM sector.

The research outlines the leading sectoral practices for providing online cultural services driven by the pandemic so as to inform future decision making about how to advance and evolve online service delivery.

And to build on this success beyond the core Victorian audience of these institutions, the report explores how online cultural services might enable Victorians and the GLAM sector to expand creative exchange and trade with regional neighbours in the eleven countries of Southeast Asia. It finds that there are many opportunities in a region which is embracing digitisation, but which has a mostly relatively underdeveloped online GLAM sector.

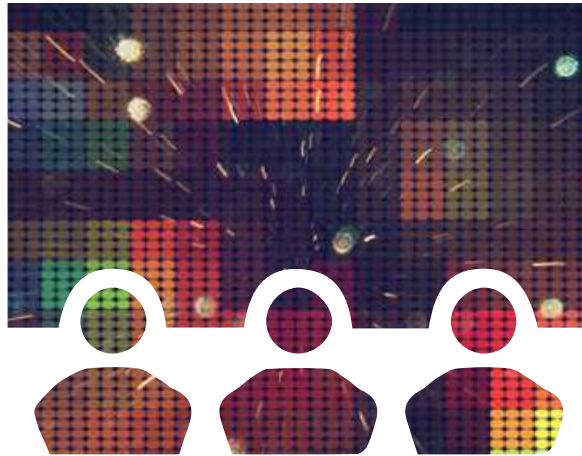
In detail: Section one explains the project's aims and approach.



The main act

- Victorian arts agencies were generally at the forefront of innovative global online service delivery, backed by pre-existing leadership support and digital strategies alongside in-house skills. The small to medium GLAM sector players made a more modest and incremental move to online offerings, often from a limited base of digital sophistication.
- The pandemic prompted prioritisation of the need to increase digital capability across the sector, leading to formal and informal initiatives to share knowledge, pollinate cross-sector learning and offer digital mentoring.
- While some more well-resourced, digitally led organisations have experimented with maturing tech like augmented reality and blockchain, most have adopted low-cost digital platforms as the means to reach a mass public virtual audience.
- To grow Victoria's cultural services, appropriately skilled GLAM organisations are needed to incubate, accelerate and scale emerging business models, technologies and curatorial practices through lab-type environments for the smaller end of the digital sector.
- Measuring the use and impact of digital initiatives relating to the collections and digital use of them has not been systematically undertaken. This work would help to build a case for future investment.

In detail: Section two examines Victoria's GLAM sector and Section three looks at how the pandemic changed the sector globally.



Expanding the house

- Many Victorian GLAM organisations reported an increase in regional audience engagement during the pandemic. Geographically distant stakeholders were more able to participate in the development of digital content, participate in two-way online conversations and access more and higher quality digital content.
- Online environments offered new platforms for marginalised voices with more resources dedicated to, for example, First Nations content creators. But this focus on opening up GLAM to all is still embryonic.
- Online experiences designed with adaptive technologies and interfaces were seen to provide access to people who may be unable or uncomfortable visiting physical sites.
- Nonetheless, a digital divide was still evident. Barriers included affordability of quality broadband, options for low-cost devices and relatively few inclusive platforms designed for accessibility.
- Digital literacy was found to be a barrier to participation for older audiences. For younger audiences, the barrier was a lack of access to devices and of digital skills to develop online content for themselves.

In detail: Section five examines how Victorian arts institutions responded to the pandemic



Audience participation

- There is growing recognition that quality online content does not simply replicate an in-person experience. Rather, it offers something unique in a new environment.
- While audience behaviours are still variable as COVID lingers, the appetite for online cultural service delivery is high. In March 2022, more than 25 per cent of surveyed Victorian respondents said they anticipated ongoing engagement with online content.
- More digitally literate GLAM organisations are now able to use online analytics to create real-time time feedback loops, understand the impact of digital initiatives, and quickly respond to audience feedback.
- Celebrating success stories and documenting case studies integrating creator, curator and user voices is important to raise the profile of user-led design.
- Better mapping of digital developments is also needed - particularly for small to medium GLAM organisations – to ensure discoverability, relevance and ease of use.

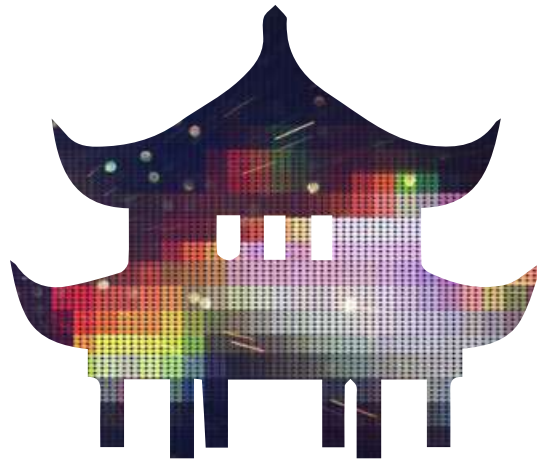
In detail: Section five contains some feedback and perspectives from professionals in the GLAM sector about their experiences during the pandemic.



Production calls

- **Online and onsite audiences can now be recognised as different but similarly valuable to the GLAM sector. They are also interlaced with each other. The rapid development of online user experience is now set to shift onsite experience expectations. Audiences now expect online experiences of increasing quality to be accessible on demand.**
- There is concern in the Victorian GLAM sector that online momentum will be lost as capital, operational and project resources are redirected to cementing the old place-based presence as the pandemic subsides.
- Any ambitions to expand the GLAM sector through online services needs to be intentional and appropriately resourced. Embedding online also requires a specific organisational focus and the evidence base for the benefits of that focus.
- Most organisations are still unpacking the potential of new business models and revenue generation opportunities e.g. digital licensing, new modes of financial interaction, and intellectual property.
- Universities, the entertainment industry and the tech sector are untapped partners to co-develop and provide confidence in new business models.
- Leaders and embedded digital visionaries will continue to be vital to catalysing change both within GLAM organisational structures and by influencing individuals across other organisations.

In detail: The opportunities for the future are outlined in sections six and seven.



The new regional gallery

- Southeast Asia is relatively limited in online cultural service offerings relative to Victoria, with the exception of Singapore. Nevertheless, the ubiquity of digital devices and platforms across the fast-evolving region coupled with increasingly sophisticated local audiences suggests there is opportunity in this market.
- Victoria's digitally advanced arts agencies, a well-regarded small-to-medium digital ecosystem and the strong independent arts sector make the State well placed to grow its online cultural presence in Southeast Asia.
- While the Victorian GLAM sector sees opportunity in cultural exchange with the region, the countries of Southeast Asia have not always received the focus given to larger or more developed counties such as China and Japan.
- Developing more content in language, co-creating with local voices and perspectives, and skills exchange are all seen as potentially high value opportunities.
- However, the eleven countries of Southeast Asia contain a diverse array of cultures and development levels. So, content should be informed by an understanding of hyper-local audiences and localised technological ecosystems to ensure interoperability.

This emerging opportunity for people-to-people engagement and business in Southeast Asia in the GLAM sector aligns with Victoria's broader opportunities in this region examined in the separate report *Strengthening Victoria's Connections with Southeast Asia: Trade and Investment Opportunities*. The growing two-way tourism and education ties between the State and the countries of the region provides a further foundation for cultural connections.

In detail: Southeast Asia's changing online arts scene is examined in Section four and the opportunities for the future are outlined in Sections six and seven.



A playbill for the future

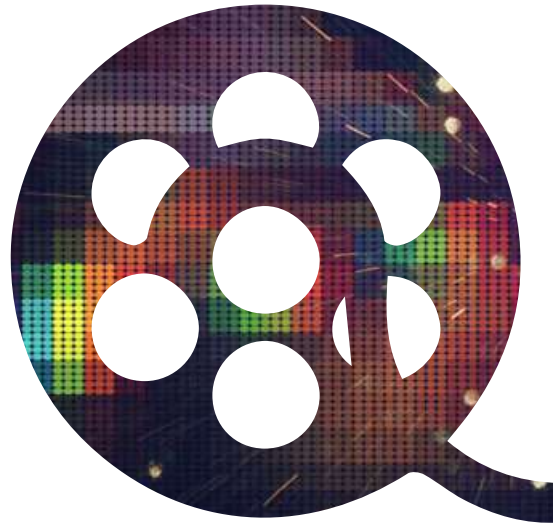
The report outlines a flexible set of scenarios to advance Victoria's digital cultural service ambitions in a matrix which takes account of different levels of digital maturity in the GLAM sector and arranged to address leadership, skills, and different platforms.

It provides practical advice on:

- How to better activate collections for a digital audience
- Measures to improve the experience of this new audience
- Making digital collections more inclusive and diverse
- New business models to support online access to collections
- Pathways to delivery and cooperation in Southeast Asia

Some of the proposed scenarios are already in play within the Victorian GLAM sector. So, the intention is not to rebuild the wheel. Rather it is to highlight the importance of these measures, promote them more widely in the sector, identify where up-dates may be valuable, and advocate for continued resourcing.

In detail: The full table of scenarios and recommendations for Victoria starts on page 54. The scenarios for expanding engagement and trade with Southeast Asia begin on page 58.



Rewind: The key findings

Southeast Asia: There are many opportunities to grow a Victorian arts presence in Southeast Asia through commercial export and creative exchange of digital cultural services and content.

Support for regional expansion could boost opportunities for Victoria's homegrown arts-oriented SME's which are currently limited by the Australia's small market size.

Victoria's edge: Victoria arts agencies were mostly performing at the leading edge of digital cultural service delivery around the world during pandemic. Culturally-oriented digital small enterprises played a significant role in rapid innovation across the GLAM sector.

Digital divide: Given the continued appetite for on-demand content as life returns to normal post-pandemic there is value in supporting digitally mature organisations to keep breaking new ground. However, there is a need for ongoing investment in bringing - and keeping - less digitally mature parts of the sector to a basic level of capability and capacity.

In detail: See the Conclusion on page 54.

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Section one: Setting the scene

Background

What were the enablers of successful online cultural service delivery during COVID? What can be learned for the future provision of cultural services? And how can this support Victorian flows of trade, diplomacy and cultural knowledge with Southeast Asia?

This report provides current insights into how Victorian publicly funded galleries, libraries, museums and archives responded to the online experiment created by the COVID pandemic. It presents the findings of a global scan of best practice and interviews with leading Victorian digital cultural service providers to unpack key themes that have emerged during forced reliance on digital platforms during COVID.

The report also unpacks the potential for Victorian digital cultural services in the future – in particular, how they might support cultural exchange and so positively influence the state’s relationship with neighbouring countries in Southeast Asia. The region has been identified by the Victorian government as holding under-tapped potential for economic, social and cultural exchange through investment and collaboration.

Findings highlight the rapid acceleration and adoption of online services across the sector, opening the door to innovation, access and export potential. Equally, this report demonstrates the urgent need for further investment in sector-wide digital literacy, skills and infrastructure to meet its potential locally, nationally and globally.



Key terms

GLAM: Galleries, Libraries, Archives and Museums

Within the creative industries - Galleries, Libraries, Archives and Museums - are known collectively as the 'GLAM' sector. Each component has some distinguishing service aspects related to specific content and audience. However, for the purpose of this report we will focus on service objectives common to all, albeit with differing emphasis. The common objectives across the GLAM sector are: activating collections; providing an engaging experience for visitors; supporting diversity and inclusion through visitation and participation; sustainable business operations and growing audiences. This report explores how these common objectives have been met through online cultural services and discusses opportunities to elevate ambitions through a strategic approach to online service development and delivery.

Digital Cultural Services

Taking a lead from the Australian Council of the Arts Digital Culture Strategy (2021-24), this report adopts a broad approach to digital as both inherently technological and as a 'mindset' which shapes ways of doing and thinking about contemporary culture.¹ It is increasingly irrelevant to make clear distinctions between physical and digital cultural activity. The blurring of boundaries between society, culture and commerce in physical and digital spaces and places, the ubiquity of screen interfaces and the Internet of Things, are such that articulating boundaries are counter to the expectations of GLAM audiences. Digital cultural services are understood as audience digital touch points which may include but are not limited to social media channels, virtual programming, website, interactive and immersive experiences as well as internal infrastructures such as collections management system, online ticketing systems and WiFi networks.

Southeast Asia

Southeast Asia describes the countries in the closest neighbouring Asian region Australia – Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, Timor-Leste, Vietnam and Indonesia. The countries are often collectively presented under the framework of the Association of Southeast Asian Nations (ASEAN) which currently does not include Timor Leste and mainly focuses on economic and security matters. However, ASEAN does have a cultural and arts dimension which tends to emphasise cultural connections – or an ASEAN Community - across what is an otherwise culturally diverse region. Flagship initiatives include the ASEAN City of Culture which changes every two years and the Best of ASEAN Performing Arts festival, both of which have been disrupted by COVID. ASEAN has cultural heritage digitisation initiatives under way in cooperation with Japan and South Korea demonstrating how there is scope for Victorian institutions to participate in an Australian initiative in this field.

¹ Source: https://australiacouncil.gov.au/wp-content/uploads/2021/07/aca_301326_digitalstrategyrepo-60e784d394ba9.pdf

Scope

Distribution

The GLAM sector is typically conceived as a cultural value chain that flows from creation to production, distribution through large and small institutions and organizations, and the access and participation of audiences and other stakeholders. The focus of this report is on the digital distribution and online access of cultural services that occurred in response to the restrictions on mobility during the COVID pandemic in 2020-2022. Emphasis is on services as they are delivered to audiences, as opposed to internal digital management and communication systems.

Our scope encompasses a global survey of leading practice and innovation in the distribution of online cultural services to understand how Victorian services performed in comparison. Through primary and secondary research, we explore the factors that enabled a successful shift to a sudden reliance on digital service online. We then discuss what can be learned for the future distribution of cultural services, and how these may enhance cultural exchange between Victoria and Southeast Asia.

Mode of service

Digital cultural services in this sector are distributed in three ways.

- Hybrid On-site: Digital services delivered or accessed from a physical or virtual location include digital ticketing systems; interactive catalogues; interactive signage; audio guides; hybrid displays and exhibitions that are a mix of physical artefacts and digital content; and digital exhibitions based solely on augmented and virtual reality technologies.
- Online: Digital services delivered and accesses exclusively online, from websites to AI enhanced interactive catalogues to 3D virtual tours that replicate the place-based experience. Online services includes social media platforms such as Instagram, Twitter, WhatsApp, TikTok and Discord and pre-recorded or live video streaming of events through platforms like Facebook Live, Periscope, Ustream, Livestream, Youtube and Vimeo.
- Hybrid Off-site: Digital services delivered and accessed via physical nodes outside the primary location such as Augmented and Mixed Reality enhanced temporary exhibition, walking tours mediated through audio and AR markers, and geocache treasure hunts.

Online focus

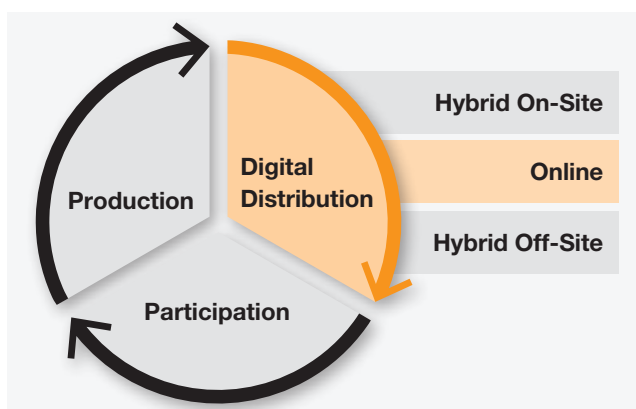


Figure 1: Diagram of cultural value chain articulating the research focus on digital distribution as manifest online, as opposed to hybrid delivery on or off site (Moloney, 2022).

Publicly funded arts agencies and organisations

Within the scope of online digital distribution, the emphasis of this report is on publicly funded agencies and organisations. Nonetheless, in a creative industries environment there is a high degree of cross-pollination between sectors and public and privately funded offerings. Hence our global scan of activity from 2020 to the present includes some examples from the commercial arts sector, the performing arts, individual artists and cultural festivals. In addition, the research is informed by interviews with Victorian based digital production consultants who have worked with the sector to provide digital cultural services.

Relative impact within the GLAM sector

Another factor that has affected the scope of the research is the relative impact of the pandemic on museums and galleries, as compared to libraries and archives. In general, our research found more examples of innovative online service delivery in museums and galleries. This is not to say libraries and archives did not step up to meet community needs in novel ways during the pandemic. However, instances of cutting-edge practice in online delivery were more challenging to locate. More research is needed to unpack this trend. While libraries and archives are a significant aspect of this report, the emphasis on museums and galleries has emerged when discussing leading online activity in response to COVID.

Aim and objectives

The aim of this research is to document leading GLAM practice in the provision of online cultural services dictated by the pandemic and inform future decision making about how to advance online service deliver, including specifically in the context of fostering cultural exchange between Victoria and Southeast Asia.

The report has the following objectives

- To report on leading-edge GLAM online cultural service delivery globally, in Victoria and Southeast Asia between March 2020 and March 2022.
- To identify opportunities for online services to activate Victoria's GLAM collections, enhance user experiences and advance diversity and inclusion while delivering sustainable business models.
- To recognise and consider the differences in digital maturity across the Victorian GLAM sector at different scales and how this influenced the type, quality and quantity of online services produced.
- To identify a range of tools and mechanisms to enhance and grow the Victorian GLAM sector's capability and capacity to deliver online content, with a particular focus on exchange with SE Asia.

This report adds to global research on the impact of the COVID pandemic on the distribution of digital cultural services.² Leading practice and innovation are identified, with a focus on activity within Victoria and SE Asia. Given the wide public uptake and familiarisation with accessing resources online forced by the pandemic, there is an opportunity to build on this momentum. The strategies that emerge from the report build on successes, consider constraints and provide approaches that can address the digital divide exposed by the pandemic.

The outcomes are intended to inform policy makers in governmental and institutional roles and to stimulate wider discussion on the future role of digital cultural services within the sector.

² Specific global academic research includes: Giannini T, Bowen JP. Museums and Digital Culture: From Reality to Digitality in the Age of COVID-19. *Heritage*. 2022; 5(1):192-214 ; A Tranta A, Alexandri E & Kyprianos K Young people and museums in the time of covid-19, *Museum Management and Curatorship*. 2021; 36(6):632-648 ; Koscieljew, M. The coronavirus pandemic, libraries and information: a thematic analysis of initial international responses to COVID-19. *Global Knowledge, Memory and Communication*. 2021;70 (4/5):304-324.

Method and approach

The approach used for this research is qualitative, using a combination of desktop review of publicly available sources, guided interviews with leading providers of digital cultural services in Victoria and a workshop with RMIT based academic experts from a range of relevant subject areas including architecture, art, business, computer science, design, education, fashion, media and communications, and social science.

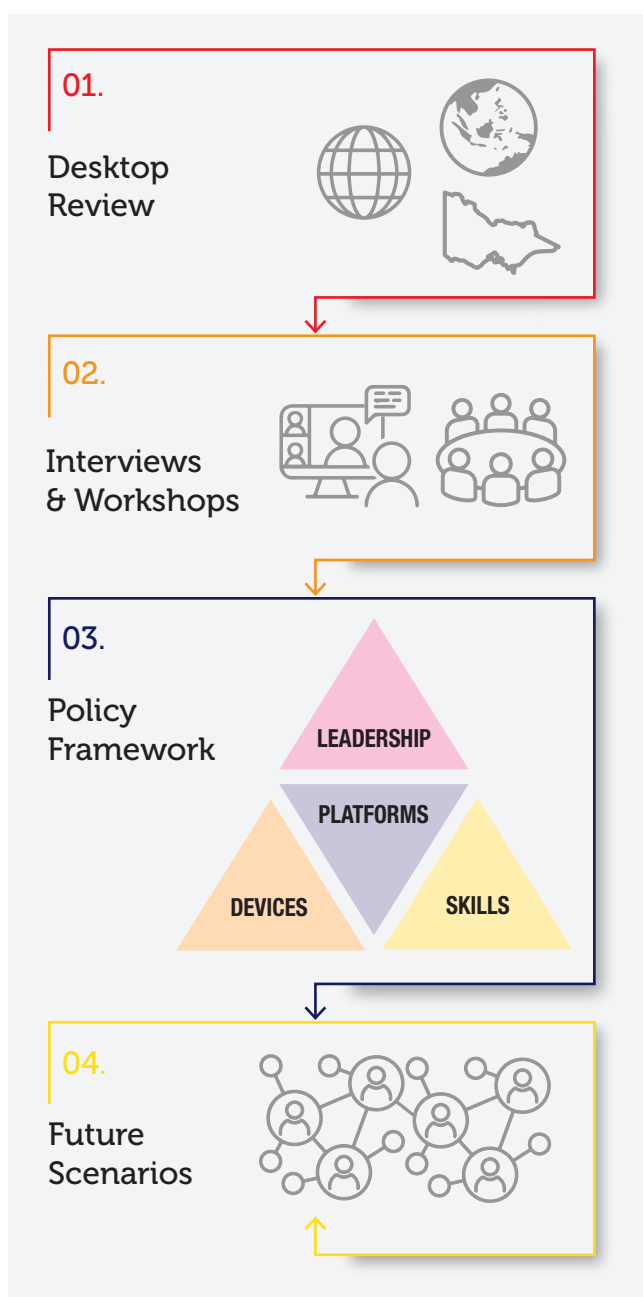


Figure 2: Diagram of research methodology (Moloney, 2022).

The desktop review has been undertaken in three stages: a scan of global activity from April 2020 to March 2022; a review of the Southeast Asia sector during this time; followed by a detailed review of the Victorian sector. From this research, themes have emerged that are present to varying intensity with the three geographic locales. A core theme common to global, Victorian and Southeast Asia activity is the digital divide between service providers in the GLAM sector.

Scholarship on the digital divide and how this leads to digital exclusion, are a reference point to underpin the development of strategy scenarios. Holcombe James provides a recent overview and an approach to researching digital exclusion within cultural institutions.³ She proposes that considering digital exclusion in terms of devices, platforms and skills provides a framework to conceive strategies to improve digital services. We utilize this framework in considering possible interventions and, based on outcomes from interviews and the workshop, we add 'leadership' to this tripartite approach.

Due to geographic scale, the nuances of the GLAM sector and the resources and time available, this research provides a snapshot of activity, not a comprehensive analysis. Nonetheless, significant trends and issues are identified and by using the digital divide framework, future scenarios are explored that can inform future decision making on digital services within the cultural sector.

³ Holcombe-James I. Digital access, skills, and dollars: applying a framework to digital exclusion in cultural institutions. *Cultural Trends* 2022; 31(3): 240-256



Section two: GLAM beyond the pandemic

The COVID pandemic 2020-2022

Victorian GLAM sector

Despite a drive to digitisation and a rising interest in born-digital presentation, the viewing experience of physical artifacts in the rarefied exhibition spaces was still central to museum and gallery operations in early 2020. This emphasis on cultural destinations has been key to Victoria's tourism strategy. Victorian museums and galleries were a significant driver for cultural tourism pre-pandemic, with Melbourne ranked first in Australia, third in Asia and 12 in the world on a global index of cultural and creative cities.⁴

Where libraries and archives have been diversifying activities to include exhibition, collaborative working and education services, the traditional business model remains enabling access to media-based content. 'Any place, any time' access to media collections was reasonably advanced and established pre-pandemic, as compared to typical museums and galleries content. However, pre-pandemic online program delivery tended to be somewhat less sophisticated with emphasis on the library as a 'third place' foregrounding physical sites.

Victorian GLAM sector impact

On March 11, 2020, the World Health Organization declared the novel coronavirus to be a pandemic. Seven days later, the Australian federal government announced a ban on non-essential gatherings of 100 or more people. On March 19 Australia closed its international borders.

For almost two years the COVID pandemic severely impacted the operations of GLAM and associated creative sectors. Despite the pandemic, service delivery continued. The restrictions on mobility and access to physical infrastructure required a pivot to online delivery. In effect, a global experiment in the provision of digital cultural services was put into play.

Melbourne and its metropolitan region were arguably the most impacted urban area worldwide in terms of mobility restriction. There were five lockdowns totalling 258 days. The intervening periods typically excluded access to public galleries, libraries, museums and archives. While regional Victoria was less subject to lockdown, the restrictions on urban and interstate travel had a significant impact on visitor numbers to regional GLAM destinations

The constraints on mobility and restrictions on public gatherings caused a sudden and sustained reliance on digital services. As the research reveals, the capacity to provide services and engage audiences at home was mixed, with a clear divide between those who had a digital strategy and resources in place and those who had yet to fully commit.

⁴ Source: https://creative.vic.gov.au/_data/assets/pdf_file/0006/115764/BCG-Melbourne-as-a-Global-Cultural-Destination-Summary-for-CV-website.pdf

The demand for online services post-pandemic

While the GLAM sector is still transitioning to a post-COVID operating environment, there is evidence of public appetite for the continuation of online and digitally enhanced experiences. The accessibility of online events has developed a new audience who will continue to seek access to digital cultural content.

The COVID-19 Audience Outlook Monitor tracks audience sentiment, including capturing data around online cultural content in the wake of the pandemic. As of March 2022, the trend nationally and in Victoria is towards an increased engagement with online interaction and experience. Just over a quarter of survey respondents reporting seeing a substantial role for online content alongside live events and place-based experiences.

“There are many experiences that due to kids, life, work and commitments I can’t attend, the online option for these is a huge plus from lockdown as I can see shows I would never be able to see in person.”⁵

Moreover, audiences are increasingly motivated to pay for online access. Of the 26 per cent who seek continued online cultural access, 52 per cent are currently paying for online experiences and 41 per cent spent more than \$50 a fortnight in the last year.

Comments collected in the Audience Monitors indicate some audiences want digital alternatives to be as close to in-person experiences as possible, while others are interested in hybrid experiences where place-based experiences are enhanced by digital technology.

This interest suggests the GLAM sector will need to continue thinking beyond simply re-opening the doors. As GLAM institutions continue to invest significantly in place, the challenge is to integrate experiences enhanced by digital devices and platforms, and build on the COVID accelerated appetite for distributed access.

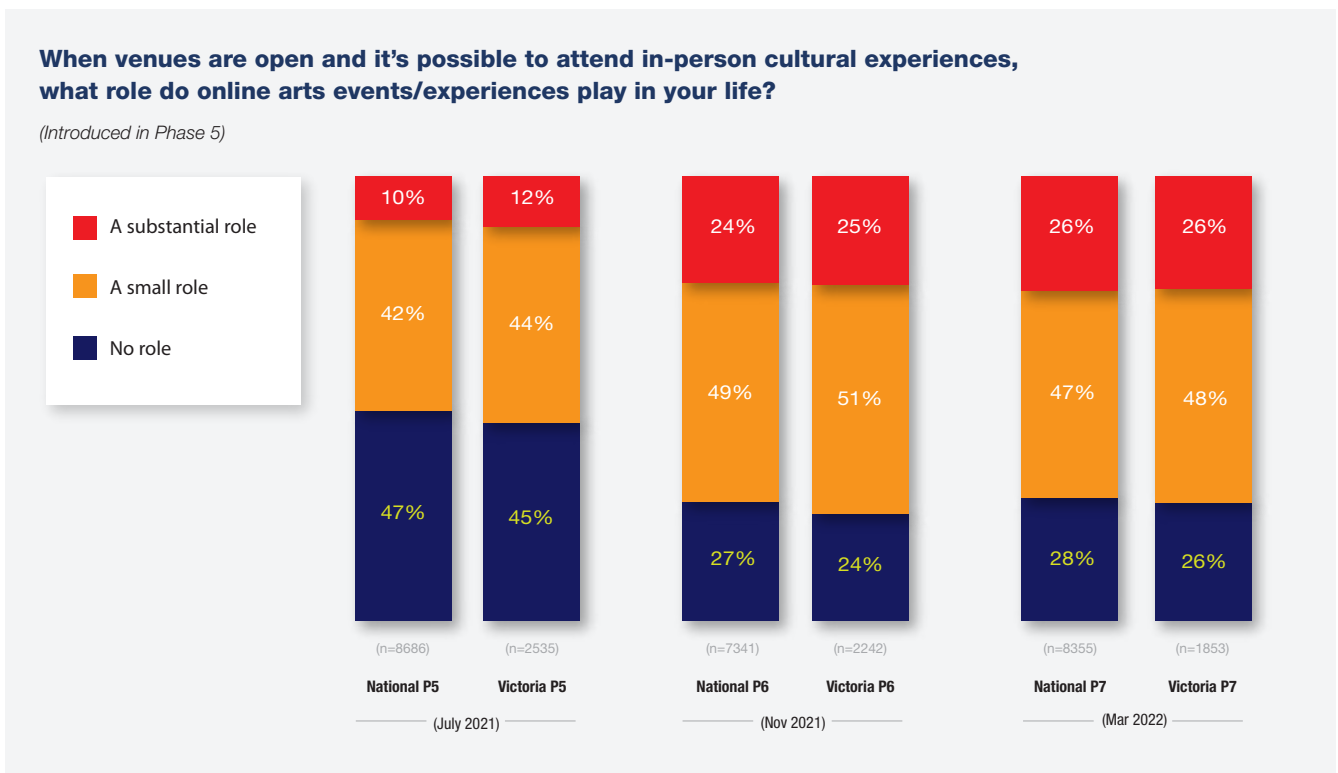


Figure 3: Ongoing demand for online activity (Source: Audience Outlook Monitor, March 2022).

5 Source: https://australiacouncil.gov.au/wp-content/uploads/2021/03/AOM_March2022_Fact-Sheet_Digital_Engagement_Outlook.pdf. P12.

Victoria's creative economy and the GLAM sector

Further development of digital cultural services can extend the reach of the Victoria GLAM sector, building on the reputation of Melbourne and its regions as a cultural destination. A vibrant digital footprint embracing collaboration platforms can also empower and advance cultural exchanges within Southeast Asia and position Victoria as a leading provider of digital cultural services in the region.

A virtuous circle

The Canberra based think-tank A New Approach (ANA) has produced a series of reports that quantify and analyse the contribution of the cultural and creative sectors. *The Australia's Cultural and Creative economy" A 21st Century Guide* report includes a case study of architectural services, making the case that this part of the services sector creates a 'virtuous circle'.⁶

According to ANA, an international reputation for design excellence attracts international students, which in turn leads to more of the world's buildings been designed by Australian trained architects, which fuels the reputation of the Australian architecture sector. Thus, a virtuous circle is born through a chain of desirable events that positively reinforce each other.

The GLAM sector in Victoria also has the potential to accelerate economic activity in adjacent sectors through world leading online content. This includes galvanising cultural tourism, creating global knowledge flows between professionals and energising the professional trajectory of those small to medium enterprises (SME) that make up Victoria's vibrant design, film, animation and videogame industries.

If the virtuous circle of GLAM is orientated towards the largely untapped market of Southeast Asia, the State government's aspirations to stimulate cultural exchange and trade can be enhanced. The diagram below, based on the AMA's example of architectural services, captures the potential relationship between a world class online GLAM presence, international profile and potential collaboration with Southeast Asia, cultural tourism and the Victoria SME creative services industries. This virtuous circle provides a context to position this report, although we note further research is needed to explore in detail the potential of the strategy for the diverse markets within the neighbouring Asian region.



Figure 4: The GLAM virtuous circle where world leading online experiences raises international profile leading to cultural exchange, cultural tourism and trade in digital services (Moloney, 2022).

⁶ Source: <https://newapproach.org.au/wp-content/uploads/2021/08/5-ANA-InsightReportFive-FullReport.pdf>. P. 102.

Parallel social, cultural and technology shifts in 2020-22

Over the past two years several other shifts have occurred alongside pandemic. Foremost among these, we have identified three as critical interdependencies for considering any digital distribution strategy – a centring of First Nations partnerships and voices, a need to actively foreground diversity and inclusion conversations and practices, and a responsibility to take climate action.

First Nations first

The Victorian government's Creative State strategy 2025 foregrounds the principle that opportunities are 'maximised for First Peoples'.⁷ The mechanism for applying this principle is to take direction from Creative Victoria's First Persons Directions Circle. Discussion of high-level future strategy undertaken in this report embeds the principle of First Peoples first, but in undertaking the research there has not been an opportunity to engage with the Directions Circle. Any further development of the strategies explored in this report should address this gap.

Diversity and Inclusion

This report recognizes the Victorian government commitment to diversity and inclusion. In addition to the above policy on First Nations First, implicit throughout this report is recognition of current Victorian government strategy.

- Safe and Strong, Victoria's Gender Equality Strategy 2016
- Absolutely Everyone: State Disability Plan 2017-2020
- Every opportunity: Victorian economic participation plan for people with disability 2018-2020
- Victorian Aboriginal Affairs Framework 2018-2023
- Victoria's Multicultural Policy Statement 2017
- Victoria's Lesbian, Gay, Bisexual, Transgender and Intersex (LGBTI) Health and Wellbeing Action Plan 2014-2018
- Ending Family Violence: Victoria's Plan for Change 2016

Each of the above strategies are acknowledged but are not explicitly explored in this high-level report. Further research is needed in these areas to ensure any future strategies for the GLAM sector reflect the State governments commitment to diversity and inclusion

Climate Change

The Creative State 2025 strategy also acknowledges the context of climate change for the creative industries ecosystem from creation to distribution. The switch to digital services during the pandemic had a clear and positive impact on the reduction of carbon footprints for cultural institutions through limited travel while also raising questions about the resources needed to sustain digital services, from water use by data centres to the whole-of-life for lithium-ion batteries and a culture of disposable devices. The development of future strategy should acknowledge and advance the need for positive impact on climate change adaption and mitigation.

Victoria's cultural exchange context with Southeast Asia

The promotion of cultural exchange between Victoria and Southeast Asian countries is a key component of the Global Victoria strategic plan.⁸ This commitment to deepening cultural understanding is aligned with strengthening of economic relationships and soft diplomacy in the region.

Through soft diplomacy and cultural exchange arts and cultural experiences can provide a significant and meaningful pathway towards trust and understanding between nations. Further, arts and culture play a key role in building and improving international relationships, including those focused on trade and security. A nation's cultural reputation is intricately linked to its soft power expertise in navigating and negotiating diplomatic relationships.

A recent Asialink event further nuanced the concept of cultural exchange in the context of Indonesia and Australia.⁹ The relationship between cultural exchange activities, economic exchange and soft power was acknowledged alongside a clear message that cultural exchange involves many processes and works at many levels. In terms of collaborative projects, the point was made that the more productive and successful outcomes often emerge out of organic relationships developing over time between participants.

This paper echoes the Asialink finding. Alongside federal and state funded initiatives, exchange with Southeast Asian countries is often most evident at a people-to-people level and through informal networks as much as formalised pathways. Victoria has an opportunity to leverage existing people-to-people linkages through its diaspora and alumni networks to further advance cultural and economic exchanges.

⁷ Source: https://creative.vic.gov.au/__data/assets/pdf_file/0007/552832/Creative-State-2025.pdf

⁸ Source: https://creative.vic.gov.au/__data/assets/pdf_file/0007/552832/Creative-State-2025.pdf

⁹ Source: <https://asialink.unimelb.edu.au/calendar/asialink-arts/dekat-dekat-jauh-so-close-yet-so-far-a-conversation-series-2-scaffolding-the-indonesian-and-australian-visual-arts-sectors>

Digital technology and the GLAM sector

Online services are dependent on – and in some cases led by - advances in digital technology. The many affordance of technology to transform digital cultural services could fill many reports. For the purposes of this high-level scan of activity we provide three outlines: mature hi-tech; savvy lo-tech; blockchain.

In considering these outlines, readers should retain an awareness that technological developments do not occur in a vacuum. Social and political factors are equally critical in innovation and adoption.

Mature Hi-Tech

Online services beyond standard media – text, graphics, video - and interactivity can include a now mature set of 3D technologies that builds the concept of a 3D online environment that has been omnipresent since at least the early 1990's.

- In the 1990s, VRML was embedded into browsers, but hardware of the time was limited
- From the early 2000s, Java enabled 3D browser content emerged, but software development stalled in 2004;
- By the late 2000's web-based 3D multiplayer games were gaining traction;
- In 2002 Second Life was launched as an alternate 3D environment to WWW
- By 2009 AR was embedded in Flash web browsers
- From 2014 Google Cardboard enabled smartphone based VR distributed online
- In 2016 Pokemon Go popularised Augmented Reality (AR) on iOS and Android devices
- Today, AR can be embedded into browsers on most mobile devices; while multiplayer Virtual Reality (VR) worlds such as META are gaining traction.

Within this trajectory towards 3D online worlds, the Australian Centre for the Moving Image (ACMI) was one of the first GLAM institutions to embrace a multiplayer 3D 'twin on steroids' version of its museum. Launched in 2003, ACMI Park enabled online audiences to engage within virtual gallery spaces. Federation Square was transformed by a bowling lane and sound caves.

There were some limitations – ACMI Park required the user to download a large application and needed a high-performance computer. Online access was decommissioned in 2006 with an onsite version on display until 2009.

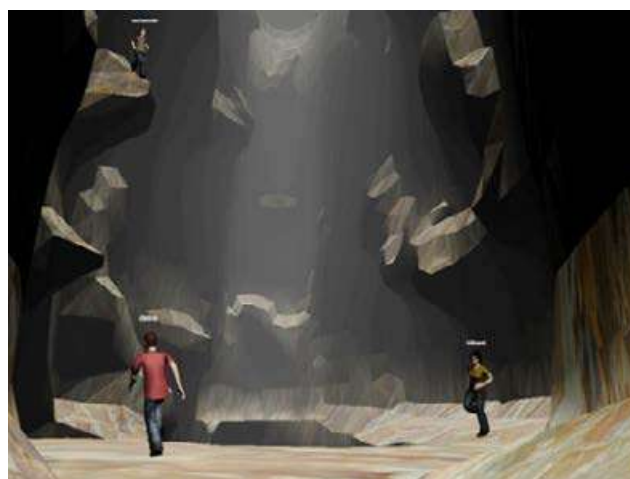


Figure 5: ACMI Park 2003 (Source: <https://www.acmi.net.au/works/108732-acmipark/>).

The online technology behind ACMI park is now robust and mature, as are virtual reality (VR) and augmented reality (AR). Many GLAM institutions across the world have experimented with, and in some cases committed to, using AR and VR as part of their ongoing displays. The concept of the distributed GLAM experience has also been enabled by AR, such as the *64 Ways of Being* project commissioned by Creative Victoria encouraging users to 'play the city' in 2019.¹⁰

Mass uptake enabling online access to AR and VR within home and work is still relatively limited. However, as demonstrated with the Serpentine KAWs exhibition references later in this report, the technology can be simply deployed to bring exhibitions 'to life' for home audiences.

Another technology that has matured and is in ubiquitous use throughout online commerce is the use of Artificial Intelligence (AI) to understand trends and outliers in customer behaviour.

Application with the GLAM sector is varied and includes: curating online content tuned to previous visits; analysing online reviews of visitor experiences; predicting the capacity

¹⁰ Source: <https://www.64waysofbeing.com/about/>

for temporary exhibitions; and using computer vision to tag large collections.¹¹ While the technology behind these examples is mature and off-the-shelf applications are available, our review did not reveal GLAM institutions are realizing the full potential of AI.

Savvy Lo-Tech

The switch to online services prompted an outpouring of GLAM content on social media. In particular, video platforms provided a fast and robust way to engage with audiences. Front and back-of-house staff became video producers overnight.

While production values were mixed, the savvy use of lo-tech emerged as a feature of the global lockdowns. Video content was tuned to specific audiences to great effect, such as the *Frick's Cocktails with a Curator* series on YouTube.¹² Such informal, intimate experiences often had a positive side effect of demystifying GLAM organisations as curators broadcast from home offices and spoke with audiences off-the-cuff.

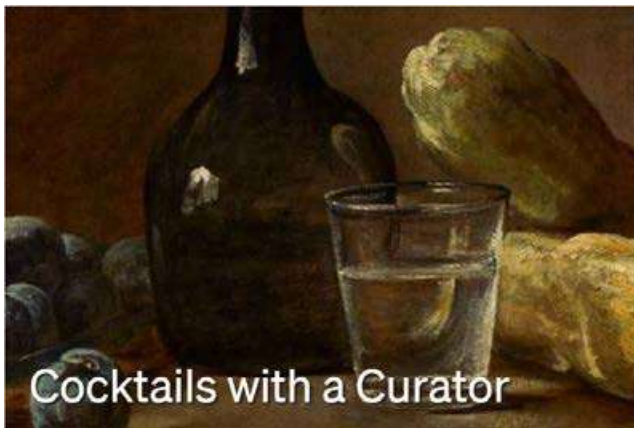


Figure 6: Cocktails with a curator at the Frick Institute, New York (Source: https://www.frick.org/interact/miniseries/cocktails_curator).

Simple online collaboration tools enabled creative and curatorial practice to continue, whether the distance was just outside a 5km boundary in Melbourne's north or 7,500km away in Bangkok. One of the main communications channels for Victoria's Asia TOPA festival, for example, was a collaborative Google doc. SharePoint, Teams, Zoom and Miro created new way of working which, while not replacing face to face engagement, cemented different approaches to convening.

Podcasting also picked up pace during the pandemic, giving many small to medium GLAM players a voice while picking up new audiences. The State Library of Victoria begun its 'bibliotherapy' podcast. In the United States small museums increasingly took up the microphone, such as the Philbrook Museum of Art Museum's 'Museums Confidential' behind the scenes look at the art world, delivered in partnership with NPR affiliate Public Radio Tulsa.¹³

The advantages of savvy low tech are clear. Online distribution through mass adopted channels enables people to integrate online content into their existing digital behaviours and preferences. Connecting through Instagram, YouTube and Weibo gives originations an opportunity to tailor content to medium, create more two-way conversations and show a different side of their offer and 'organisational personality' to. As will be shown later in this report, most Victorian GLAM institutions harnessed savvy low tech as their primary means of online delivery during pandemic.

Blockchain

Blockchain have been described as one of the potentially most disruptive technologies for the creative industries and by extension the GLAM sector.¹⁴ Blockchain is a system of recording information in a way that makes it difficult or impossible to change, hack, or cheat the system. A blockchain is essentially a digital ledger of transactions that is duplicated and distributed across the entire network of computer systems on the blockchain.

Blockchain is the technology behind crypto currency, non-fungible tokens (NFT) and digitally autonomous organizations (DAO). There are already instances across the globe of institutions monetarising their collections by marketing NFT artworks online. The concept of a DAO has generated much discussion and many proposals for applications. For example, an online community have organized online to develop a new golf course.¹⁵ The golf course will be planned, constructed and operated through a series of rules agreed by the members.

11 Source: <https://themuseumsai.network/toolkit/>

12 Source: https://www.frick.org/interact/miniseries/cocktails_curator

13 Source: <https://philbrook.org/museum-confidential-the-podcast/#:~:text=Museum%20Confidential%20is%20a%20behind,over%20at%20National%20Public%20Radio.>

14 Source: <https://apo.org.au/sites/default/files/resource-files/2019-11/apo-nid267131.pdf> <https://apo.org.au/sites/default/files/resource-files/2019-11/apo-nid267131.pdf>

15 Source: <https://linksdao.io/>

The Goethe-Institut initiated a global collaboration examining the potential of blockchain for the arts and culture sector. The intent was to explore how a “new decentralised ecology of open source cultural organisations” could empower cultural producers and free up administration resources within institutions.¹⁶

What seems to emerge is a potential for blockchain to devolve mechanisms and processes for funding artists, as well as allowing various players in the arts ecosystem – artists, collectors, viewers, curators, and others – to define how they want to interact, with the possibility that sharing and artwork almost merge, or at least become as two sides of the same coin.’¹⁷

Such proposals would require a radical re-think of the way GLAM institutions operate. While this would not be an attractive immediate proposition for many in the Victorian GLAM sector, the approach may enable smaller entities and artist collectives to amplify their presence.

¹⁶ Source: <https://www.goethe.de/ins/gb/en/kul/zut/dao.html>

¹⁷ Source: <https://www.daowo.org/#the-daowo-sessions-artworld-prototypes>

Section three: Global culture goes online

The pre-COVID context

While it is beyond the scope of this paper to offer a full survey of online cultural service pre-pandemic, what is offered here is a snapshot of the direction and debates evident in online cultural service offers pre-COVID.

GLAM peak bodies

Digital service prioritisation has not been uniform over the past decade. For example, the International Council for Museums (ICOM), representing 142 countries and territories, focused its 2019 general conference in Kyoto on environmental sustainability, diversity and strategic collaboration. The discourse on digital services was limited to themes of 'reconciling technology and traditional tools'.¹⁸

In contrast, the 2019 International Federation of Arts Councils and Culture Agencies (IFACCA) world summit in Malaysia, attended by more than 80 countries, focused one of three summit days on "wrestl(ing) with the paradox of digital technologies which democratise the co-creation of culture, while they simultaneously increase power asymmetries and extend colonial tendencies of extraction and unproductive forms of tribalism".¹⁹ The IFACCA summit thus linked questions of sustainability and diversity with digital literacy, skills and equity.

From the 2019 IFACCA proceedings it appears there were also significant differences between the digital perspectives of member countries. There was recognition of the need to strike a balance between those who saw the liberating potential of online services and others who perceive digital platforms as another form of western hegemony. The two

views were linked to the enormous disparities within societies and between countries and the challenges of disruptive change.

A diversity of perspective was adding a richness to the debate around digital cultural services.

Just prior to the outbreak of the pandemic, IFACCA commissioned a public report *Supporting Culture in the Digital Age*.²⁰ This extensive document draws on the member countries' cultural agencies including the Canada Council for the Arts Digital Strategy Fund, the UK's Culture is Digital policy, as well as multilateral organisations such as the Digital Culture Agenda for Ibero-America. The public report includes specific sections on the GLAM Sector.

Of relevance to our focus on online distribution was: reference to emergence of online art content aggregators such as Artsey; partnerships with major internet players such as Google's Arts and Culture service; and the use of digital tools to run successful crowdsourcing campaigns.

Public, private and citizen partnerships were opening the door to fruitful digital service delivery.

Digital services had a far wide and deep presence within museums and cultural heritage peak bodies in Europe and North America pre-COVID. For example, the Network of European Museum Organizations (NEMO) advocated for museums and heritage to become an integral part of the Digital Agenda of the EU.²¹ NEMO hosted a summit on innovation in 2018 to address a perceived gap between digital technology and culture. The outcomes from the summit included digital capacity building in the sector as prerequisite for future relevance with an emphasis on digital content alongside tools for disseminating existing

18 Source: <https://icom.museum/en/news/icom-annual-report-2019-is-now-online/>

19 Source: https://ifacca.org/media/filer_public/f4/26/f4268262-d5d1-41f3-84e0-566aeb22d1bb/ki2019_report_online.pdf

20 Source: https://ifacca.org/media/filer_public/30/b4/30b47b66-5649-4d11-ba6e-20d59fbac7c5/supporting_culture_in_the_digital_age_-_public_report_-_english.pdf

21 Source: <https://www.ne-mo.org/about-us/who-we-are/strategic-focus.html>

collections. Europeana is a parallel network of cultural heritage professionals funded by the European Commission.²² In 2015 Europeana became one of the Commission's digital service infrastructures to collaborate, advocate and provide an ambitious digital technology for members.

The American Association for Museums has a long history of reviewing and considering the impact of digital technology on cultural services. From 2012, it has published an annual TrendsWatch forecast report that presents a timeline of digital technology.²³ Pre-pandemic topics includes social media-based crowd sourcing, AR and VR, 3D printing, robotics, wearable technology and block chain.

Digital skills and literacy were understood as underpinning future relevance (and were often identified as lacking across the sector)

Libraries

The International Federation of Library Associations and Institutions (IFLA) established a Trend Report in 2013 and identified five ongoing themes: new technologies; online education; redefinitions of privacy and data protection; hyper connected societies; and the transformation of the global information economy through new technologies.

By 2018, the positive ethos of these trends had been called into question. The spectre of a 'Dark Ages 2.0' was raised, where the 'essentially private nature of the library can no longer be taken for granted in a world of perpetual and persuasive online surveillance'.²⁴ The 2019 report was more optimistic, with a recognition that in a world of uncertainty there was a need to 'work at scale'. Partly in response to shifts in government support, the vision was for international networks of libraries facilitated by the ongoing development of new technologies.²⁵

Digital networks were offering new avenues for collaboration and connection while simultaneously raising issues around privacy and misinformation.

Online access has been central to the American Library Association (ALA) agenda. The ALA mission is focused on diversity, equity, lifelong learning, and literacy. Online access is fundamental to this agenda with pre-COVID policy briefs including *Digital Empowerment and America's Libraries and Careers for America's Youth in the Digital Age*.²⁶ Libraries and Archives Canada in collaborating with the Canadian Museum's Association, also championed online access in combination with physical presence to provide spaces to connect diverse cultures and communities.

The European Bureau of Library, Information and Documentation Associations (EBLIDA) is an umbrella organization with 34 member countries representing more than 65,000 public libraries in Europe. Its current strategic plan (set in 2019) was based on a background paper that located four catalysts for library change (2019-2022): Active participation and the struggle for an equitable and democratic society; UN Sustainable Development Goals; Copyright in the Digital Single Market; and Artificial Intelligence. The latter two are of most relevance to this report.

Digital empowerment was rising as an opportunity for equity and diversity

In 2019 the EU passed a directive on Copyright that was designed to reduce the value gap between internet platforms and content creators (in particular media groups). While the directive embedded exemptions for cultural heritage institutions, EBLIDA acknowledged the diminishing role of libraries 'with the advent of conglomerates providing for easy and often free access to information'.²⁷

Alongside the challenge of open access was the impact of AI, with the observation that by 2025 all library transactions could – in theory – be replaced by AI-based services (although we note this view does not encompass the social transitions that were taking place in libraries). In this context, EBLIDA argues libraries should engage and drive the AI process as opposed to the passive adoption of AI solution. The issues of copyright and AI are also central to the Conference of European National Librarians.²⁸

The GLAM sector was increasingly positioning as a potential leader in ethical digital service delivery

Archives

For over 60 years the International Council of Archives (ICA) has provided an international network that advocates for best practice. The strategic plan for 2008-2018 identified 'Influencing the Development and Use of New Technologies' as a core activity.²⁹ A review of the 2019 conference *Designing the Archive* reveals a mature approach to delivering services online. Sessions included: making archives accessible through innovation; redesign and digital initiatives; next generation of digital archives; digitization strategies; and transitioning archive users from paper to digital.³⁰

The ICA blog for 2019 contains several in-depth posts acknowledging that for the 21st century the nature of archives 'will be largely shaped by the latest information and communication technologies'.³¹ Another article highlighted

22 Source: <https://www.europeana.eu/en>

23 Source: <https://www.aam-us.org/programs/center-for-the-future-of-museums/trendswatch/>

24 Source: https://trends.ifla.org/files/trends/assets/documents/ifla_trend_report_2018.pdf, P. 9.

25 Source: https://trends.ifla.org/files/trends/assets/documents/ifla_trend_report_2019.pdf

26 Source: https://www.ala.org/advocacy/sites/ala.org.advocacy/files/content/access/Broadband_web_01-15-17.pdf

27 Source: <http://www.eblida.org/News/2019/Background-Paper-Conclusions-%20EBLIDA-NAPLE-Annual-Conference-2019-Dublin-Ireland.pdf>

28 Source: <https://www.cenl.org/reports-and-publications/>

29 Source: https://www.ica.org/sites/default/files/AGM_2008-07-25_strategic%20direction_EN.pdf?msckid=939e7739c0e411ecaf9bb6d201081308

30 Source: https://www.ica.org/sites/default/files/designing_the_archive_-_program_final_october_2019.pdf

31 Source: <https://blog-ica.org/2019/11/27/archives-in-the-21st-century/>

that in digital society, archives shift to 'being part of one network ... in which cooperation becomes more important than service delivery'.³² A third post argued that machine learning 'will substantially improve the ability to process and provide access to digital collections'.³³

The mature state of strategy and uptake of technology within the archives sector is also manifest in the peak US body, the Society of American Archivists (SAA). The society has an extensive publishing program of books, journals and newsletters. These include the 2020 series of case studies on Engagement in the Digital Era, Digital Rights and Digital Preservation.³⁴

Impact of COVID

Museums and Galleries – global trends

According to a survey by UNESCO over 90 per cent of the world's museums (85,000 institutions) closed their doors for significant periods in 2020-2021.³⁵ While predominately larger, well-resourced institutions were able to devise and rapidly deploy online services, in African and small island developing states only five per cent of museums were able to offer online content.

The International Council of Museums (ICOM) September 2020 survey located similar trends, with 95 per cent of respondents reporting closure during COVID and an uneven capacity globally to deliver online services.³⁶

This digital divide is captured in responses to a question on what digital services are currently been supplied. Approximately 70 per cent of African and Arab nation respondents reported no online collection, exhibitions and learning programs. The inverse was reported in other regions, with approximately 30 per cent reporting no collections online, 50 per cent reporting no online exhibitions and a range from 25 to 50 per cent reporting no online learning programs.

Perhaps the more striking outcome from this survey question was the use of social media with all respondents, regardless of region, indicating significant activity driven by the ubiquity of smart phones.

GLAM digital cultural services delivery was geographically uneven. However, opportunities for service uptake was somewhat less technologically limited due to the prevalence of smart phones.

The ICOM survey also showed that apart from social media and newsletters, the global museum sector was generally underprepared to deliver online services when pandemic hit. The data demonstrated some capacity to adapt - particularly in the case of producing live events, learning programs and online exhibitions - but for the majority, this was an enormous task to be faced at the same time as managing organisations shaken by lockdown and illness.

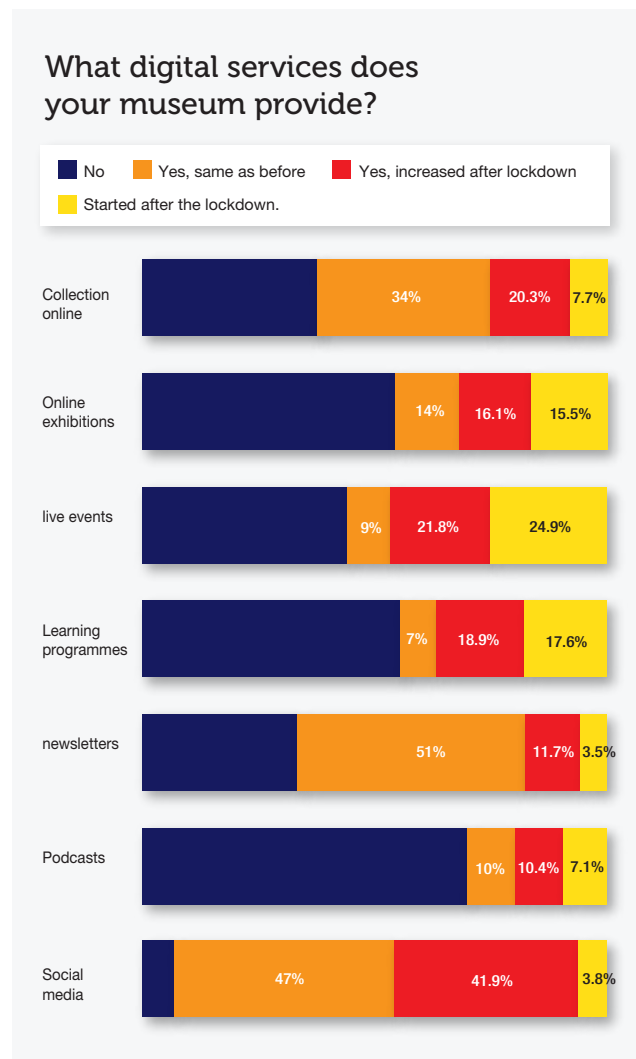


Figure 7: 2020 ICOM world-wide survey of museums on digital services provision (Source: https://icom.museum/wp-content/uploads/2020/11/FINAL-EN_Follow-up-survey.pdf).

32 Source: <https://blog-ica.org/2019/11/20/values-before-technology/>

33 Source: <https://blog-ica.org/2019/10/02/machine-learning-archives-and-special-collections-a-high-level-view/>

34 Source: <https://mysaa.archivists.org/productdetails?id=a1B0b0000hBXyeEAO>

35 Source: https://unesdoc.unesco.org/ark:/48223/pf0000376729_eng

36 Source: https://icom.museum/wp-content/uploads/2020/11/FINAL-EN_Follow-up-survey.pdf

Museums and Galleries – Europe

In line with the review of activity pre-COVID, a reasonably mature digital response in Europe built on existing digital strategy and resources to quickly deliver services online. The Network of European Organizations (NEMO) undertook a report in the early stages of the pandemic that revealed 4 out of 5 museums had increased online services. Typically, this was a quick response based on reallocating existing staff, with over half the respondents to the survey reporting their museum had developed one or more new services.

Six months into the pandemic the Europeana Foundation commissioned a report 'The Digital Transformations Agenda and GLAMs'.³⁷ The pandemic was shown to have accelerated plans for a transformation of the way museums and galleries conceived their digital strategy. The report included a recognition that digitally literate leadership is vital at all levels. There was recognition that pandemic provided an inflexion point, which provided an opportunity to leverage from the experience of being thrown in the digital deep end.

The Europeana report also recognised the vital importance of 'agents of change' to digital transformation. Key documented change tactics include 'making space, small scale experimentation, nurturing confidence, agile iteration, taking manageable risks, connecting and translating'.³⁸

Agents of change recognize that while a digital transformation typically comes from senior leadership, the implementation requires the transitioning of existing staff, who may be challenged by shifts in focus.

The pandemic crisis accelerated digital transformation in countries with strong digital backbones and policies. However, adoption was often still reliant on visionary leadership, individual change makers at different levels of the organisation and a culture of incremental experimentation.

Within the European context, Italy provides an excellent study during COVID. By monitoring activity on a common network, researchers have quantified how 100 large state museums responded during the pandemic.³⁹ In periods of lockdown, many museums relied on social media rather than their websites, with a doubling of activity.

Social media become the platform of choice for spreading information, proposing live streaming, interviews and sharing artwork. Interaction with the public involved synchronous activity such as live curator presentations within museum spaces. Innovative asynchronous interaction involving the use of urban spaces was also evident, such as treasure hunts and flash mobs.

Most of the sector leveraged mass adopted devices and platforms as an effective, affordable way to engage.

Museums and Galleries – North America

The trends located in Europe are evident to varying degrees in North America, where many large institutions were able to provide engaging online content during periods of restricted mobility. The American Alliance of Museums (AAoM) provides a comprehensive coverage of member activities through articles and reviews. In many cases front-of-house workers became online content providers through updating websites and the use of social media channels.

The AAoM report demonstrates initially this content was orientated towards established audiences by replicating previous live events online. As workers became more confident with online production, content was developed that enabled a fresh relationship with artworks and objects already experienced.

These fresh approaches also attracted new audiences who were experiencing collections and programming for the first time, albeit online.⁴⁰ The approaches ranged from light-hearted humorous use of collections, to photorealistic virtual tours and online access to interactive 3D augmented and virtual reality.⁴¹

Rapid content deployment – often by non-professional communicators – created a playful, informal environment which reframed the perception of some GLAM sector offerings.



Figure 8 A/B: National Jewish Museum / Pacific Science Centre (Source AAoM, 2021).

37 Source: <https://pro.europeana.eu/post/the-digital-transformation-agenda-and-glams-culture24-findings-and-outcomes?msclkid=cf4547c8c43d11ec971708be0c0695a6>

38 Source: <https://pro.europeana.eu/post/the-digital-transformation-agenda-and-glams-culture24-findings-and-outcomes?msclkid=cf4547c8c43d11ec971708be0c0695a6>

39 Source: <https://www.tandfonline.com/doi/full/10.1080/09647775.2020.1790029?msclkid=3c07384dc44c11ec87d7dcf09a2f250c>

40 Source: <https://www.aam-us.org/2021/05/05/inviting-engagement-front-of-house-workers-become-online-content-creators/>

41 Source: <https://www.aam-us.org/2020/03/25/4-ways-museums-can-successfully-leverage-digital-content-and-channels-during-coronavirus-covid-19/>

Libraries

Trends and initiatives within the global library sector parallel those within museums and galleries. Many libraries within developed countries were already on a path to digital transformation, with the pandemic accelerating this trend.

The 2021 IFLA trend report proposed that virtual access to online services in libraries would be here to stay, potentially calling into question the value of spaces and physical settings.⁴² This ongoing demand coupled with an increasingly nomadic population, potentially provides a challenge to the concept of a local library. Another potentially transformation future trend noted within the IFLA report, is the application of artificial intelligence (AI) to provide data to shape personalized access to library services.

Interaction tracking backed by AI insight engines has gained traction to inform personalisation of services.

Within the United States the ALA reported on the ongoing impact of the pandemic for online services. There was a significant uplift in the provision of digital content, online learning and virtual library programs. More than half of US public libraries report circulating technology, including laptops, hotspots, and tablets, for off-site use. Over a third have digital literacy and technology programs with dedicated training staff.⁴³

During the pandemic, the trend towards digital transformation also accelerated in Europe. Libraries doubled the amount of digital offers through online workshops, talk shows and live streaming of lectures. Social media was used to offer story time (in Germany, Netherlands, Norway, and Spain) through Facebook groups and YouTube profiles. Some libraries also extended their agenda to include live streaming of popular music, and post-production documentation of theatre and performing arts.⁴⁴

New digital offerings are an extension of pre-COVID library trends towards the library as a community resource in addition to the traditional function of library as information repository and knowledge sharing platform.

Archives

The International Council of Archives hosted a number of webinars and produced guidelines during the pandemic. One constant theme was the how the pandemic accentuated the digital divide to reveal 'fundamental questions about global imbalances, deep-rooted systemic processes, and ownership of archival holdings'.⁴⁵

The impact of the pandemic and switch to online also provided an opportunity to share knowledge on digitisation practices and in so doing 'build collaborative relationships and facilitate dialogue'. Artificial intelligence also emerged as a transformative theme. The ever-increasing scale of records that require archiving and the shift to digital native formats provides a challenge and an opportunity to automate processes through AI. However, the non-critical application of AI to the archive sector can 'entrench perspectives and biases of our practice'.

Continuing this theme of reflection, the Society of American Archivists hosted a webinar that was a 'call to action' prompted by the pandemic. An opportunity was identified to review existing practice and transform and develop innovative uses of digital collections. This, in turn, was seen as a chance to highlight the value of the sector in a period of uncertainty.⁴⁶

The pandemic has highlighted the need for sources of trusted, accurate online information to address critical social and environmental health risks while fostering a society that is respectful, inclusive, democratic, and self-aware.⁴⁷

42 Source: <https://repository.ifla.org/bitstream/123456789/1830/1/IFLA%20TREND%20REPORT%202021%20UPDATE.pdf>

43 Source: <https://ilovelibraries.org/article/a-snapshot-of-americas-libraries-in-2021/>

44 Source: <http://www.eblida.org/Documents/EBLIDA-Preparing-a-European-library-agenda-for-the-post-Covid-19-age.pdf>

45 Source: <https://www.ica.org/en/building-digital-bridges-digitisation-for-collaboration-and-networking-unesco>

46 Source: <https://archivesaware.archivists.org/2020/05/19/deriving-value-from-collections-in-the-time-of-corona-covid-19/>

47 Source: <https://www2.archivists.org/news/2021/as-a-matter-of-fact-convincing-the-world-that-archives-matter-video-available-for-download>

Case study: Serpentine Galleries, London

Serpentine Galleries is an example of an institution that had an aspirational digital strategy in place that amplified and extended its international profile during COVID. Based in London’s Kensington Gardens, Serpentine comprises two galleries offering a program centred around art, education, architecture and innovation.

Central to Serpentine is investment in a research and development platform, a space where the institution’s back-end (operations, protocols, in-built values) and front-end (what it produces) are brought into experimental realignments.⁴⁸

This combination of critical theory and innovative practice takes an active position in shaping future technologies that yield significant impact on contemporary and future societies. The key mechanism for R&D at Serpentine is a series of partnered labs: the Creative AI Lab which is a collaboration with Kings College London; the Synthetic Ecologies Lab based on art-science collaborations in the fields of biology and ecology; and the Blockchain Lab which supports networks between artists, cultural workers and blockchain technologists.

The strategy of championing digital innovation and strategic partnerships is perhaps best exemplified by the recent *Kaws: New Fiction* exhibition.⁴⁹ This was a fully hybrid production with physical artworks in the Serpentine Galleries in tandem with a parallel online version in Fortnite, a massive multiplayer video game that has tens of millions of players globally.



Figure 9: *Kaws: New Fiction* exhibition, Serpentine 2022
(Source: <https://www.serpentinegalleries.org/about/press/kaws-new-fiction/>).

For those who are not part of the global Fortnite community and could not attend the Serpentine Galleries, through a second partnership with technology company *Acute Art*, the public can download AR versions of the artworks that can be interactively viewed on a mobile device or computer.

The Serpentine has been strategic in their use of social media, exemplified by a collaboration during COVID with Korean pop band BTS. Often called the biggest band in the world, BTS have tens of millions of followers on Facebook, Twitter and Instagram – followers who were all exposed to the Serpentine’s creative offer.



Figure 10: K-pop band BTS collaboration with the Serpentine gallery
(source: <https://www.thetimes.co.uk/article/k-pop-stars-bts-launch-global-art-project-at-the-serpentine-gallery-3q135xtfk>).

The case of the Serpentine reveals

- Research and development in collaboration with external experts provides a way for a digitally mature institution to share the risk when exploring the affordance of digital technology to advance practice.
- Videogames has emerged as a great fit for born digital collections and contemporary artists. Through strategic collaboration with massive multiplayer platforms there are opportunities to exponentially grow audiences within online culture.

48 Source: <https://www.serpentinegalleries.org/arts-technologies/rd-platform/>

49 Source: <https://www.serpentinegalleries.org/about/press/kaws-new-fiction/>

Section four: Going online in Southeast Asia

Context pre-COVID

This section explores the neighbouring Asian region using a similar structure to the global scan. Given the focus on online activity, the outcomes are not comprehensive. However, what has emerged through a desktop review is that Singapore GLAM organisations stand out in delivering compelling online activity.

Differing levels of digital maturity in the Southeast Asian GLAM sector

Singapore's current status as a cultural destination with world class GLAM institutions is the result of long-term centralised strategic planning. The National Arts Council developed a series of plans that progressed from fostering local art to international aspirations. The 1995 'Singapore: Global City of the Arts' was followed by the 2000 'Renaissance City Report'. The 2012 Arts and Culture Strategic Review (2012) explicitly set a goal to 'join the league of arts and culture capitals'.⁵⁰ A digital agenda was present throughout the 2012 plan: digital channels for networking and information dissemination; the linking of digital story telling platforms initiated by the public; how digital platforms enable customisation of content to meet diverse users; and the emerging recognition of born digital artworks.

By the 2018-2022 plan, Singapore had achieved the twin goals of fostering a vibrant local creative industry and international recognition as a global cultural tourism capital. The 2018 plan aimed to continue and consolidate this trajectory, including continued development of online platforms. This included leveraging the Ministry of Education's student learning space; tapping into youth-based social media and fostering public-private collaborations to enable

small but technologically enabled countries like Singapore to be at the forefront of innovation.⁵¹

Sustained state investment has positioned Singapore as the leading regional destination for digital transformation in the cultural services sector.

Outside Singapore the situation in other countries is mixed. The UNESCO publication *Backstage: Managing creativity and the arts in South-East Asia* provides a succinct snapshot of the plurality within this region.⁵² The report employs the findings of a recent study of the creative sector in nine countries that consisted of a quantitative survey, in-depth interviews and policy analysis. The study was originally undertaken in 2019, well before the impact on this sector from the pandemic. The researchers later returned to the organisations to learn about the impact of these changes.

A 2021 UNESCO report found that for much of the Southeast Asian GLAM sector, the pandemic magnified existing challenges.

For most of these countries, the concept of culture is seen as defining national identity and unification that in turn shapes cultural policy development. From a strategic point of view, some Southeast Asian countries have plans that encompass the GLAM and creative sector while others do not. For example, the Philippines Development Plan 2017-2022 includes the creative and cultural economy, while also recognising creativity as a tool for cohesion. Other countries have sector-specific development such as Vietnam, which has a National Strategy for the Development of Cultural Industries. In Malaysia and Thailand, digital content and media have become the focus of creative economy development strategies.

50 Source: <https://apo.org.au/sites/default/files/resource-files/2012-01/apo-nid254931.pdf>

51 Source: https://apo.org.au/sites/default/files/resource-files/2018-10/apo-nid254876_1.pdf. P. 85.

52 Source: <https://culture360.asef.org/resources/backstage-managing-creativity-and-arts-south-east-asia/>

SE Asia is a rich mix of politics and cultures, with an equally rich array of state-led governance arrangements relating to the GLAM sector. Nonetheless, there is an observable trend of cultural activities increasingly being planned under new agencies, which usually report directly to the offices of the prime minister or the president. For example, distinctive government agencies within Thailand and Indonesia have been set up to develop cultural strategies and carry out plans. Vietnam has also made a beginning by creating such entities. However, these strategies are for the most part at early stages of implementation.

For the majority of countries, there is an absence of concrete state-led action plans for delivering digital cultural services.

Despite the mixed state of strategic planning and support at a national and sub-national level, the region is bustling with many small-scale private cultural initiatives.

A comprehensive overview of 83 independent art spaces in was undertaken by Tokyo Art Research Lab in 2016.⁵³ Within this review, the Philippines and Indonesia were distinguished by many collective initiatives between curators and artists. This sense of communal support and engagement is present to varying degrees throughout Southeast Asia. Typically, cultural communities engage through locally orientated social media, with some independent galleries developing online resources to profile and market activity internationally. For example, the G13 Gallery (Malaysia) developed an online 'viewing room' in 2018 that combined video and photography.⁵⁴

While the desktop review revealed that outside of Singapore, there were minimal examples of leading online practice services, there were some notable small-scale exceptions. For example, in 2018 the Manzi art space - an artist and social activist collective in Hanoi, Vietnam - established 'Into Thin Air' as long-term public art project using a downloadable Augmented Reality application to disperse virtual artworks and interactive installations throughout Hanoi.⁵⁵

A thriving local small-to-medium private sector offers opportunity to partner in digital service offerings.

Impact of COVID

The review located more than 300 entities that constituted the major and regional GLAM institutions in Southeast Asia. Most had active websites that included standard information, online photographic documentation of collections and exhibitions.

Some have invested in online virtual tours, such as the Museum of Manilla's 'M Tour', which offers virtual experiences featuring in-depth discussions of the artworks in the museum collection, mini activities and an interactive virtual gallery.⁵⁶ Most websites also included links to social media platforms. In our observation, these were used for standard information exchange with minimal innovative engagement with audiences.

Websites offering 'one-way information' were the most commonly observed service on offer.

The Singapore GLAM sector has remained tenable during the pandemic, generally reaping the rewards of pre-COVID strategy and digital resources. This was boosted by national investment – for example, National Arts Council launched an initiative, The A List, where all digital art and cultural ongoings are consolidated on one site for easy access '#SGCultureAnywhere'.⁵⁷

In the commercial gallery space, the Singapore institutions adapted by appealing to buyers virtually. Arts educators rapidly adapted to virtual teaching. According to the Singapore Digital Roadmap, the pandemic has accelerated the need for digitalisation.⁵⁸

Voids in digital service delivery have been revealed by the restricted physical performance and visits to museums and galleries. However, the Singapore GLAM sector has responded to these challenges by digitally reconstructing and magnifying the experiences for audiences.

It is expected that in the post-pandemic world, both digital and blended delivery models will be prevalent. The Singapore Digital Roadmap also outlines the efficacy of digital technology as a way to both capture and generate value, given the ability to be able to both preserve and digitally deliver to audiences globally. In this regard, the roadmap states that digital tools enable an individual and their specific organisation to continue to be linked and associated with a broader international community of art makers and creatives.

⁵³ Source: https://tarl.jp/wp/wp-content/uploads/2019/08/2019_SoutheastAsiaResearchTrip.pdf

⁵⁴ Source: <https://g13gallery.com/exhibitions/>

⁵⁵ Source: <https://www.manziart.space/intothinair>

⁵⁶ Source: <https://metmuseum.ph/exhibitions/>

⁵⁷ Source: <https://www.a-list.sg/>

⁵⁸ Source: <https://www.mccy.gov.sg/sector/policies/arts-and-culture-digital-roadmap>

Building from a strong base, Singapore was the regional leader in online service delivery. GLAM were able to offer a similar online presence to leading European and North American practice.

Outside of Singapore, some larger institutions in the region were able to find resources to deliver COVID specific online resources. For example, Museum Macan, in Jakarta, developed extensive 'Museum from Home' online services including online exhibitions (catalogues and video); an online education program with downloadable activities; as well as activities with artists designed for a range of users. Other institutions used the COVID enforced closures to resource and accelerate digitisation programs. The Penang House of Music (PHoM) devoted resources from its gallery to the archiving resource centre. According to the director Paul Augustin, while the gallery was closed PHoM was able to devote nearly all its attention to the building of their digital archive and library.⁵⁹

The differing stages of development within these countries pre-COVID were reflected in their capacity to deliver online services during restrictions on mobility. Shifting to online delivery and engagement has led to differing rates of success across the various countries, and often different regions within countries. The digital divide persists, with uneven access to requisite technologies being a major setback.

At the same time, the digital pivot has enabled gaps to be addressed and, in some cases, filled in ways that were not viable pre-pandemic. Art scenes have been able to enlarge their cultural and physical reach beyond central districts and capitals, which has helped to bolster inclusivity. The ability for regional and international collaboration has also become a greater reality and there has also been a shift or growth in new sources of income and potential in new and deregulated platforms like NFTs.

Overall, the pandemic greatly affected cultural institutions which had comparatively limited online capacity. For example, while Vietnam has many high-quality museums, they are very traditional in terms of their operations which in turn impacted their ability to adapt to the changes induced by the pandemic. When lockdowns occurred, apart from posts on web sites and social media, these museums had minimal online services that could maintain connections and engagement with users and audiences.

Eventually, this lack of strategy and resources in Vietnam prompted a government program of digital transformation. At the end of 2021 the Government approved a program for the digitisation of Vietnamese cultural heritage which will run from 2021-2030. One positive outcome of the pandemic would appear to be increased attention from governmental agencies across the region, to the need for online service strategy and resources

The digital divide has hindered some Southeast Asian GLAM organisations delivering online services. But in many cases, it has also spurred investment in upgrades to digital services, devices and platforms that would have been unlikely without pandemic.

⁵⁹ Source: <https://www.thestar.com.my/lifestyle/travel/2021/07/31/museums-in-penang-hanging-by-a-thread-amid-the-pandemic>

Case study: ArtScience Museum, Singapore

The ArtScience Museum encompasses an active and a dynamic range of programming and audience outreach initiatives in relation to its digital service provision. Under the direction of Honor Harger, the ArtScience Museum has overseen several digital initiatives that have emerged directly as a result of the pandemic.

These initiatives included streamed talks, performances, and workshops by which to engage with audiences. The local context also became a core aspect of focus during this time - in particular giving voice to those that were largely unheard or unseen pre-pandemic. As Hager has commented:

*One of the observations that we made during the early months of the pandemic in 2020 was that it was affecting underprivileged communities disproportionately more negatively. Inequality was a big driver in how the pandemic was impacting communities around the world. We certainly saw that in our local context, as well.*⁶⁰

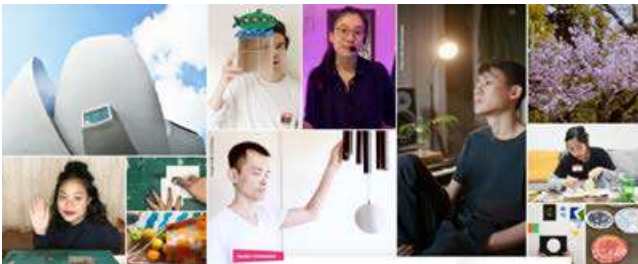


Figure 11A: ArtScience at home (source: <https://www.marinabaysands.com/museum/events/artscience-at-home.html>).

The ArtScience Museum online program, ArtScience at Home, began in April 2020 with the mandatory closure of all non-essential services. The program is based on meaningful ways of interacting with new communities that pre-pandemic the Museum didn't have a track record of engaging. The museum post-pandemic seeks to further amplify these voices. ArtScience on Screen, the Museum's moving image program, fed into this initiative. Other examples of the Museum's online programming and outreach included a specific four-part series for children titled 'Let's Talk About' that sought to focus children's attention on people of the Singapore community who are placed under the radar and that aren't often spoken about such as migrants and mixed families. Some members of these communities were invited to speak online of their experiences. As Hager has further commented:



Figure 11B: ArtScience at School (Source: <https://www.marinabaysands.com/museum/events/artscience-at-school.html>).

*That whole journey was a moment of awakening for our team. We realised that we had the privilege of slowing down, especially while the museum was not open. It was a chance to pause and see the richness around us. And to try to figure out ways that we could use our platform and our privilege to share that with a wider audience.*⁶¹

The Museum also mastered its large social media with content relevant to each channel's main audience. For more than 120,000 Facebook followers, the channel consists of largely educative and programming-based content. This is complemented by an Instagram channel that showcases short snippets eliciting visitor engagement, alongside showcasing programming content while the ArtScience Museum YouTube platform covers talks, workshops and virtual tours.



Figure 11C: ArtScience virtual tours (source: <https://sgmagazine.com/artscience-home/news/artscience-home-online>).

60 Source: <https://blooploop.com/museum/in-depth/artscience-museum-honor-harger/>

61 Source: <https://blooploop.com/museum/in-depth/artscience-museum-honor-harger/>

Section five: Victoria goes digital

Context pre-COVID

In general terms, the state of online readiness in the Victorian GLAM sector mirrored that of European, North American and Singaporean institutions. Many larger and digitally-led organisations had established online strategies, and some had resources and networks in place to implement an escalation from March 2020. However, the digital divide between these organisations and those entities which had focused primarily on place-based activities pre-pandemic was evident when lockdown hit.

Museums and Galleries

Within the museums and galleries sector, Victorian Collections was a positive point of difference for Victoria. A partnership between the Australian Museums and Galleries Association Victoria and Museums Victoria, Victorian Collections provides a free, easy-to-use online cataloguing system and web resource, complimented by an active digitisation training program. More than 500 state and community cultural collections can be accessed through a central Victorian Collections website.

This comprehensive web resource provides a curated portal catering to the general public, educators and researcher needs including a 'stories' section that provides engaging narratives from the shared collection. The Victorian Collections project, in effect, provided a baseline of online access for most cultural collections across the state, alleviating to some extent the digital divide.

Prior to the pandemic, Museums Victoria (comprising Melbourne Museum, Bunjilaka Aboriginal Cultural Centre, Scienceworks, the Immigration Museum and the Royal

Exhibition Building), had identified digital platforms and resources as a central theme within the 2017-2025 strategic plan. 'Digital Life' is one of three themes with a mission to take the museum experience beyond the walls, through online 'audience-centred experiences that connect with hearts and mind'.⁶² This theme, while not a full digital transformation, recognized the ubiquitous presence of digital information and services within contemporary lives. Digital Life embedded a commitment to grow digital expertise within the organisation with the aim of enhancing place-based services and the production of engaging online content.

The National Gallery of Victoria (NGV) 2018-19 annual report outlined a commitment to online services that, while not as explicit as the 'Digital Life' agenda, showed expertise and commitment that would stand the institution in good stead.⁶³ The NGV channel was in place, providing an easily navigable portal that enabled online visitors to watch, listen and read engaging content from current and past exhibitions. This included virtual tours that enabled interactive engagement with high resolution 3D scans of exhibitions. The channel was complimented by the NGV App providing access on mobile devices to learning projects, engagement with artists, and virtual exhibition tours (now discontinued in favour of browser-based services). In 2018, the NGV social media reach was already significant.

The Australian Centre for the Moving Image (ACMI) was temporarily closed just prior to the pandemic as a major refurbishment got underway. The strategy behind the refurbishment was multi-platform, orientated equally to place-based and online engagement. Building on a perception of a digitally jaded audience who were 'becoming fascinated with analogue culture', the place-based experience was enhanced with a propriety digital system – XOS.⁶⁴ By the use of the 'Lens', a small round marker embedding a tracking device, visitors could engage with site-based content and then use

62 Source: https://museums victoria.com.au/media/6663/museums victoria_strategicplan_2017-2025_accessible.pdf. P.7.

63 Source: https://www.ngv.vic.gov.au/wp-content/uploads/2019/10/NGV-ANNUAL-REPORT-2018_19.pdf

64 Source: <https://www.acmi.net.au/stories-and-ideas/weve-come-long-way-baby-history-acmi/>

the Lens to access a digital tour on a mobile device or home computer to continue the ACMI experience. Given the closure, ACMI had already planned extensive online content, including a major online exhibition 'The Story of the Moving Image'. New online education resources, public programs and a video-on-demand service were also underway. Completing this suite of online services was a digital art gallery that would showcase online-only artworks.

Large Victorian gallery and museum agencies had begun a shift to multi-platform offers pre-pandemic, with investments in skills, infrastructure and partnerships positioning them to rapidly mobilise exclusively online delivery.

Libraries

In the 2019 annual report the State Library of Victoria highlighted onsite activity, noting the achievement of been ranked the world's fourth busiest library.⁶⁵ The vision for 2020 included 40 per cent more space and 70 per cent more seating, explicitly catering to its huge popularity as a 'third space' for Melbourne – popularity in part driven by international students and a rising local residential demographic, both of which receded during pandemic.

Alongside this investment in place-based services, the 2018-2020 plan included a digital experience transformation strategy.⁶⁶ While ambitious for the Library in 2018, in the wake of the pandemic the strategy reads conservatively compared with other agencies which had previously capitalised on place-based investment. It focused on more modest ambitions of 'streamlining online transactions', extending crowdsourcing and collaboration and a digital innovator in residence program.

Archives

The Public Records Office Victoria had strategically invested in online capabilities that would – coincidentally – be bought online during the pandemic. The Digital Archive program started in 2015. It is a significant restructure that streamlines digital ingest, enhances online access and embeds a digitisation-on-demand- capability.

The project also involved the development of an enhanced website and content management system. These capabilities were the outcome of a strategic plan that had a focus on increasing use of the collection and community engagement with public records, and to build profile as an 'inspiring, accessible and educational agency'.⁶⁷

Impact of COVID

Museums and Galleries

The impact of the pandemic on the Victorian GLAM sector followed the global trajectory where larger institutions had the capacity to leverage from existing resources and networks. A distinguishing feature of large Victorian GLAM institutions is the mix of in-house resource and collaboration with SME consultants from the local digital services sector. These existing resources and networks helped to accelerate the breadth and depth of online services developed by large institutions in response to the pandemic.

In contrast, peak body AmaGA reported 75 per cent of Victorian respondents to a national survey were concerned with the lack of community engagement during the pandemic. Organisations that relied on volunteers – typically small and regional, museums and galleries – were particularly despondent about the future. While 59 per cent of Victorian institutions adapted to presenting content online (website and/or social media), only 41 per cent reported increases in online activity.

The Australian Centre for Contemporary Art (ACCA) is an example of a medium sized institution with minimal resources that responded proactively in the pandemic. The 'ACCA Beyond Walls' online program was launched in 2020 and extended across exhibitions, public programs and print. The centrepiece was an online exhibition, ACCA Open, where six works were commissioned specifically for digital exhibition. The call for proposals attracted 350 entries and a diverse range of artists were selected that 'traverse the fields of artificial intelligence, sound, animation, video and archives'.⁶⁸ The exhibition was well received, and ACCA will continue the curation of an online exhibition alongside their return to place-based programs.

At the same time, ACCA's experience also highlighted the dire need for digital literacy and skills across the independent arts sector. Contributors to ACCA's exhibitions often had limited experience with online creative content delivery. Equally, ACCA's program roll out demonstrated the need for digitally-gearred impact evaluation to help the medium sized sector best understand where investment should be directed.

In contrast to the majority of AmaGA members, the closing of doors provided Museums Victoria (MV) an opportunity to accelerate its digital life strategy.⁶⁹ During the extensive periods of lockdowns and restricted access, MV launched a comprehensive online service 'Museums at Home'. This included targeted online events and activities for schools, adults and families. Each of the museums under the MV administration produced engaging online tours of collections and behind the scenes videos with staff. A non-traditional section of the website – 'Cooking with Love' - appeared, where museum staff shared recipes 'inspired by science, culture and history'.⁷⁰

65 Source: <https://www.slv.vic.gov.au/sites/default/files/Annual-report-2019.pdf>

66 Source: <https://www.slv.vic.gov.au/sites/default/files/2018-Digital-Experience-Transformation-Strategy.pdf>

67 Source: <https://prov.vic.gov.au/sites/default/files/files/PC/PROV%20Corporate%20Plan%202017-22.pdf>

68 Source: <https://acca.melbourne/education/resources/acca-open-exhibitionkit/#:~:text=ACCA%20Open%20consists%20of%20six,closed%20due%20to%20Covid%2D19>

69 Source: <https://www.victorianchamber.com.au/news/fast-five-lynley-crosswell?msclkid=af5d3960c48d11ec9af9cab49d51fe8e>

70 Source: <https://museums victoria.com.au/museum-at-home/cooking-with-mv/>

The pandemic itself became a way for MV to engage with audiences through the 'Collecting the Curve' initiative. This was both an information exchange and community building project in which audiences contributed stories and images alongside contextualizing medical research and public health approaches and remembering historical Victorian epidemics.⁷¹ While there was an acknowledged drop in some digital production values as staff rapidly upskilled to produce online content, the ethos of 'don't let perfect be the enemy of good' prevailed. Access to online increased significantly and this broad digital offer reached 34.5 million people in 2020. As reported by the CEO and Director Lindsey Crosswell, the long-term expectation is that the reach and accessibility of collections will continue to expand, creating opportunities 'for a whole new program of revenue-generating, virtual museum experiences'.⁷²

Alongside MV, the NGV represents an exemplar of leading practice for a traditional place-based institution. From day one of the shutdowns, NGV coordinated a compelling range of online offerings. The NGV COVID response is examined further in a case study in below.

The Australian Centre for the Moving Image had a different museum remit, as it was temporarily closed for redevelopment at the onset of the pandemic. In retrospect this was fortuitous timing. By the time of lockdown, the workforce was already distributed and collaborating online. ACMI had been planning for two years to maintain an online service for the planned closure in May 2019. These included a comprehensive school learning program tailored to year level with extensive resource types including virtual lessons, film programmes, examples of using videogames for education, recorded lectures, artist / curator talks and real time workshops on film and game production skills.

The 70-year-old Melbourne Cineatheque program was reborn online as the Virtual Cinematheque, streaming carefully curated 'auteur' film series into homes during lockdown. A new virtual gallery opened during the pandemic, providing an ongoing platform that celebrates and interrogates internet and digital culture. ACMI also became a TV on demand (TVOD) provider through the launch of Cinema 3 in November 2020. While the setup cost through an established platform was low, the development of a commercially competitive TVOD program that also aligned with ACMI audiences required substantial in-house expertise.⁷³ The investment proved successful with more than 10,000 paying users in the Cinema 3 database, of which only 10 per cent had a previous relationship with ACMI.

Of all the Victorian GLAM institutions, ACMI has undertaken the most substantial transformation from a place-centric cultural tourism destination to a hybrid place/online service provider embedded in museum practice. While the ACMI transformation is impressive, given the moving image focus, the digitally confident leadership, relationships with Victoria's innovative SME digital sector, investment in digital

infrastructure, and the technical expertise on hand due to the fortuitous timing of the refurbishment, this is to be expected.

Libraries

Given its outstanding success as one of the worlds most visited public libraries, the State Library of Victoria was potentially the most challenged of the arts agencies in re-orientating operations to online delivery. The core information access infrastructure of a contemporary library was in place, as were semi-permanent education resources. However, to replicate the richness of site-based engagement required many front-of-house staff to become online content producers.

Like the experience of Museums Victoria, the emphasis was on developing engagement with audiences and initially the quality was less than perfect. As the pandemic rolled on through 2020, digital skill levels within staff increased and the breadth of online content expanded. These include a range of educational services including writing 'bootcamps', 'story time' consisting of activities for pre-school children, librarian talks and short videos on aspects of the non-book collections.

Archives

For the Public Records Office Victoria, the shift to online services coincided with a major rollout of a new website and online systems that delivered more seamless and automated access to records. The range of online services is impressive and reflects the strategic plan to make the collection more accessible and relevant. The online records searching is easily navigable and curated, with seamless functionality to order the digitization of records.

The success of this digitisation on demand in the context of the reliance on volunteers to undertake the digitisation process, caused some stress. With volunteers unable to access the physical archives, pressure mounted to meet the mandatory time periods for digitisation requests. The new online functionality for ingesting digitally native records was rolled out as well and proved a successful launch. PROV also provided access to online galleries and exhibitions curated to provide compelling stories based on historical points of interest.

The online outreach to the public also includes a network of photographers, who documented moments from the pandemic, which were curated side by side with historical photos from other Melbourne epidemics. Another compelling project that used crowdsourcing to enhance the collection was the Map Warper project.⁷⁴ Users download historical maps and using the GPS capability of smartphones to align features on the historic maps with the existing site. All in all, PROV's online services present as leading practice within the archiving field.

71 Source: <https://museums victoria.com.au/collections-research/collecting-the-curve/>

72 Source: <https://www.victorianchamber.com.au/news/fast-five-lynley-crosswell?msclkid=af5d3960c48d11ec9af9cab49d51fe8e>

73 Source: <https://labs.acmi.net.au/cinema-3-spinning-up-a-museum-video-streaming-service-for-lockdown-and-beyond-9515a582868>

74 Source: <https://mapwarper.prov.vic.gov.au/>

Case study: National Gallery of Victoria

From day one of the shutdown, the National Gallery of Victoria brought staff resources from front to back-of-house into play in order to produce a world class suite of online services.⁷⁵ The hashtag #NGVEVERYDAY was launched on social media as a catchall for a raft of new online content. The pre-existing NGV channel provided a seamless portal to primarily video content, both from the archives and newly produced.

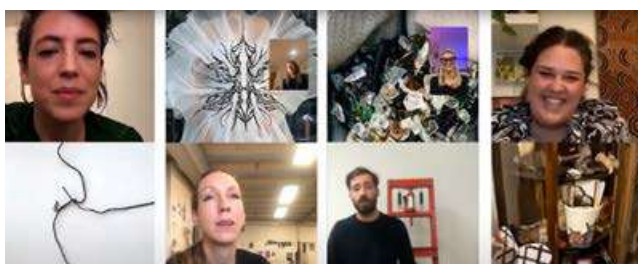


Figure 12 A: NGV Online artist talks (Source: <https://www.ngv.vic.gov.au/live-stream/spotlight-on-the-ngv-collection-digital-engagement-in-the-time-of-covid/>).

These included multiple videos produced by curators, subject matter experts and back-of-house staff such as the curatorial team, whose activities are not typically foregrounded. A series 'live-in-studio' where artists would live stream to talk about their practice proved popular. As did a series that featured collection insights from the NGV volunteer guides. Virtual tours of current exhibitions that the public had been denied access to, tapped into a ready-made audience. For example, a four-part documentation of the KAWS exhibition received over 350,000 views.



Figure 12 B: NGV virtual tours (Source: <https://www.ngv.vic.gov.au/live-stream/spotlight-on-the-ngv-collection-digital-engagement-in-the-time-of-covid/>).

The NGV EVERYDAY program also engaged in co-production with online audiences such as through the Between Art and Quarantine Challenge. A strategic partnership was extended to the Australian Ballet who danced through the lofty, resonant spaces of the empty gallery building. Tourism Australia collaborated to produce online content targeting international audiences.

Social media streams tailored to a range of demographics including pre-schoolers, children, teens, international students, and content specifically produced for Chinese social media. The education program continued via virtual tours and downloadable activity sheets, online drawing tutorials and adult history courses. As well as visual media, the NGV created music playlists and audio tours. 'Friday Nights In' streamed live music performances as a substitute for the regular on-site series of public events, while a collaboration with Orchestra Victoria paired soloist performance with works from the NGV collection.



Figure 12 C: NGV virtual drawing classes. (Source: <https://www.ngv.vic.gov.au/live-stream/spotlight-on-the-ngv-collection-digital-engagement-in-the-time-of-covid/>).

The result of this broad range of easily accessible online content is reflected in online audience visitation. The total reach on social media was more than 20 million with more than 450,000 virtual tours taken, 400,000 video views and hundreds of thousands online for live events. The continued investment in online content curated for China reaped dividends, with the NGV been ranked number two and three respectively for museums on Weibo and WeChat.

The success of the NGV online program is based on four factors: infrastructure (scalable web site, content management and cloud networks); an adaptable workforce and in house technical support; leveraging from external partnerships; and last, but certainly not least, strategy. The focus was on engaging content that provided new insight tuned to different audiences. This leveraged from the breadth of expertise and adaptability of staff, many of whom became online presenters overnight.

While the production values were generally good, given in-house production expertise, the key was the authenticity and energy that came through from passionate subject matter experts. Moreover, this content was designed for mobile devices and platforms, typically without the need to install specialist applications. This focus on engaging content and a cloud first/mobile first approach to platforms and devices proved a highly successful online strategy.

⁷⁵ The primary source for information on the NGV's online response to the pandemic is the video presentation *Spotlight on the NGV collection | digital engagement in the time of covid*. sourced from <https://www.ngv.vic.gov.au/live-stream/spotlight-on-the-ngv-collection-digital-engagement-in-the-time-of-covid/>

Perspectives from the sector

This report has outlined how the Victorian GLAM sector adapted to online cultural service provision over the two years of the pandemic. This was reflected in resourcing dedicated to producing and distributing these services once the pandemic was declared in March 2020.

To supplement this desktop research, we spoke with:-

- Five Victorian GLAM Agencies (representing galleries, libraries, museums and archives).
- Five digital creatives offering services to the GLAM sector (large firms, SME's and individual practitioners, four based in Victoria and one in Vietnam)
- Twenty five RMIT academics from media and communication, design, art, architecture, fashion, education, computer science and business (most had creative practice or research experience with the GLAM sector).

These conversations have added a richness to this study and helped to understand:

- which factors enabled or constrained online delivery
- what worked well for audiences and what missed the mark
- what services the sector anticipates will continue as venues reopen physically
- how these services might Victoria's profile and relationship with SE Asian countries

While outside of the scope of this study, we recommend extending these deep dives into the sector in future work by hosting conversations with small scale organisations, GLAM peak bodies, regional organisations and Southeast Asian representatives.

Findings

Digital readiness was the major determinate in how quickly and effectively GLAM organisations shifted to online service delivery.

- A small number of players were well geared to mobilise quickly, backed by pre-existing digital strategies, in-house expertise, infrastructure and digitally literate leaderships.
- The learning curve was steeper for those who did not have online program delivery as a core part of organisational mission, or who had limited pre-pandemic ambitions to further scale an online offer.
- Nonetheless, all those interviewed believe online service delivery is here to stay. It is now considered a core plank in making services more discoverable and available to local, regional and global audiences
- All interviewees advocated greater investment in digital programs and infrastructure. Opinion was divided between the developing infrastructure in-house and using existing or shared platforms.
- An urgent need for sector digital literacy and upskilling was universally agreed, from basic service provision to fuelling innovation through more entrepreneurial and experimental approaches.

“Our systems and processes already fitted into the mentality, it was a philosophical shift as well as nuts and bolts. We were ready for it in many ways.”

“We didn't have a significant digital offering pre-COVID. So, we were kind of going from a fairly limited base.”

Being thrown in the digital deep end created unprecedented opportunity to **activate the collections** in new ways.

- The need to rapidly release content online created a new tone of voice for many in the sector that was embraced by audiences – a voice that was less formal, more empathetic and authentic but no less precise and expert.
- While some in the sector used the occasion to experiment with emerging tech, most used low-cost devices and platforms which already have mass public adoption.
- Furthering ambitions for digital activation of collections will need appropriately resourced, skilled or partnered GLAM organisations able to incubate, accelerate and scale emerging business models, technologies and curatorial practices.
- Measuring the use and impact of digital initiatives relating to the collections, and digital use of the collection would help to demonstrate when and when investment should be targeted.
- There is an urgent need for resources focused on knowledge sharing, cross-sector learning, ‘how-to’ guides and resources, and digital mentoring.

“It’s opening more traditional organizations minds to the ability to have these digital experiences that they’ve never really had to explore before because the physical experience has been so water-tight.”

“What worked well for our audiences in terms of exhibition and programming... that’s been hard to answer because we didn’t establish clear metrics.”

“Some of the really great things that we worked on were these really kind of fun, crunchy, little videos that someone was making with their iPhone in their house - just being playful with that technology.”

Online content could dramatically improve **access and inclusion**

- Online environments offered new platforms for marginalised voices to participate in conversations and create content, although resources to support this are currently uneven.
- Regional audience engagement with larger GLAM players grew with more people able to both view content, be a part of two-way conversations and participate in the development of digital content.
- The GLAM sector was generally considered slightly ahead of the curve in designing online experiences for inclusion (e.g. for people living with visual impairment) and creating adaptive technologies which could afford access otherwise-abled people.
- Nonetheless, the digital divide is evident. The affordability of quality broadband was raised, alongside the need to provide options for low-cost devices and inclusive platforms designed for a wider range of accessibility requirements.
- Digital literacy was understood as a primary barrier to participation for older audiences, although this literacy was seen to be improving. For younger audiences the barrier was considered a lack of access to dedicated, quality equipment.

“People were learning there were things that you could download that would make other things possible that you might not have thought you could do - that they were accessible and they weren’t expensive.”

“Our Aboriginal elders are holders of significant cultural knowledge... how do we enable secure, safe, culturally sensitive access to highly valuable records?”

“You had a lot of artists that aren’t able to pivot to a digital-led practice because they’re not digitally-led and you don’t have the knowledge and the skills within the sector to facilitate that huge influx of need for digital skills and digital literacy.”

A focus on **user experience** was bolstered by opportunities to iterate in a lower-risk environment and engage with real time feedback.

- Online and onsite audiences are now recognised as different but similarly valuable across the sector. Equally, audiences now expect online experiences of equal quality, accessible on demand.
- There is growing acknowledgement that quality online content does not simply replicate an in-person experience. Rather, it offers something unique to an online environment.
- Online environments can offer real time feedback loops, allowing the sector to rapidly assess the impact of digital initiatives and iterate through direct conversations with audiences. However, this benefit can only be realised with the appropriate skills dedicated to evaluation and iteration.
- Celebrating success stories and documenting case studies integrating creator, curator and user voices is important to raise the value case for user-led design.
- Better mapping of digital journeys is needed - particularly for small to medium galleries and museums, archives and libraries – to ensure discoverability and ease of use.

“We shouldn’t be looking at replicating a live experience. It should be an additional experience or a digitally led experience.”

“Agencies have a responsibility for growing an ecosystem of [digital] SMEs. We’ve got to outsource opportunity as much as risk.”

“The technology was there. We just needed the impetus to embrace it and work out how to use it so it wasn’t just tacked on - not just replicating that experience but creating a new type of experience for people.”

Balancing online and onsite service delivery in future means recalibrating **business models**

- As physical sites reopen, there is widespread concern that the momentum to innovate online will be lost as capital, operational and project resources are redirected to cementing a place-based presence.
- Most organisations are still unpacking the potential of new business models and revenue generation opportunities e.g. digital licensing, new modes of financial interaction, and intellectual property.
- Universities, the entertainment industry and the tech sector were all seen as untapped partners to develop confidence in new business models.
- Ambitions to service and expand the GLAM sector through online services need to be intentional and woven with organisational mission. Equally, they need to be appropriately resourced through people, program and infrastructure.
- Agents of change – ‘digital visionaries’ who understand the potential – are vital to catalysing digital transformation through organisational structures and with individuals across organisations

“It’s important to consolidate values and have a strong understanding of intention to determine the approach you take digitally. What are your objectives? What does something need to achieve?”

“How do you build something that is both expandable and maintainable in the future and not just creating these one-off digital experiences that are a little bit throw away?”

“What’s the draw for good developers to come into the arts and culture sector? You really see a gap because the budgets are far away from each other at the moment.”

Connecting with Southeast Asia is seen as an untapped opportunity for cultural exchange and export

- While there was an appetite for exchange with neighbouring countries, there was an equal acknowledgement geographic focus for audience development in the region had rarely focused on Southeast Asia and was instead typically been directed to China.
- Galleries and museums in particular saw potential in realising collaborative programming and content developed ‘in language’ and where SE Asian perspectives could be centralised within content design.
- Among libraries and archives, there are opportunities for skills exchange and professionalisation in collections management, preservation and presentation.
- Limitations were identified in understanding respective market dynamics in each Southeast Asian country, in turn limiting the ability to tailor content to these markets.
- Equally, there was only a high-level understanding of mass adopted platforms and device ecosystems used in specific geographies, and how Victorian cultural services could ensure interoperability in target markets (for example, the prevalence of GRAB ridesharing in Malaysia and Singapore)

“By working with international experts, international organization like Australia or someone in Europe or someone in Korea, we’ll have a way to promote to enhance the cultural international relationship.”

“We could do more on discoverability. To me, it’s about understanding the markets, what’s relevant in content, making it discoverable – using the devices people have and are familiar with – and asking how do we play some interactive, digital, relevant experiences to connect audiences?”

“There needs to be more of a drive to have that conversation about what audiences want, and have people from respective countries guiding it.”

Section six: Opportunities and challenges

Transformative, step and incremental change

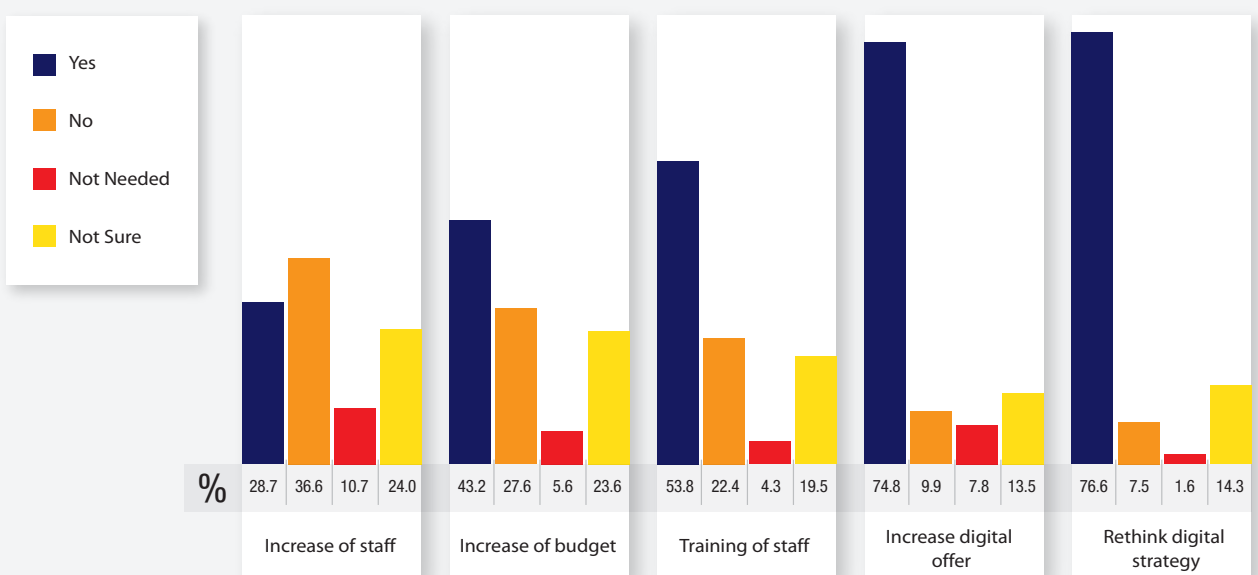
Global appetite for change

For agencies and organisations that had a digital strategy and access to resources, COVID proved it was possible to deliver engaging access to collections. For some there were significant boosts to audience and international profile. Those with resources, accelerated developments that have been in play for some time to deliver extended visitor experiences, virtual viewing rooms, education partnerships facilitated by digital interaction and co-design with expert online communities. However, where a digital agenda pre-COVID was a peripheral activity, online access was typically reliant on non-scalable websites and social media channels.

The ICOM survey of global institutions included a question on plans for online strategy and services post-lockdown. Based on responses, the report stated, 'the COVID-19 crisis has changed museum's perception of the digital world forever'. With over 75 per cent of respondents rethinking their digital strategy to increase digital online services, there is significant global appetite for change.

Figure 13: ICOM survey on plans for digital offer and services (source: <https://icom.museum/en/covid-19/surveys-and-data/follow-up-survey-the-impact-of-covid-19-on-the-museum-sector/>).

Which of the following digital changes is your museum considering after the lockdown?



Transformative change

*Museums have been contemplating the influence and impact of digital technology for more than a half century. In the last two decades, the debate has shifted from how museums will use digital technology to how museum wills be transformed by it.*⁷⁶

This quote is from a presentation to the leading Museums and the Web March 2020 conference. Written prior to the pandemic by North American museum professionals Jack Ludden and John Russick, the digital transformation agenda they propose embraces a digital first agenda. They argue that the cultural and heritage sectors will not be immune to the radical transformations that have impacted commercial, entertainment and education service providers. From their perspective, a digital first mindset will enable the GLAM sector to 'manage the change and ride those waves (or at least not be crushed by them)'.

Step change

From the position of activity in Europe, North America, large institutions in Victoria and Singapore - leading practice would engage with a digital transformation agenda, rather than incremental change to support online and onsite experiences.

However advanced online digital services - such as AI enhanced web sites, virtual tours using AR and VR, vibrant social media portals and emerging business models based on blockchain – require substantial investment in technology and skills alongside consumer and organisational behavioural change. Moreover, transformational change implies the capacity for continuous evolution that enables adaption to subsequent opportunity afforded by technology.

Based on this review of activity, such digital transformation would be challenging for regional Victoria, smaller Melbourne institutions and the majority of GLAM organisations across Southeast Asia. A more sustainable approach for institutions at a low level of readiness for online services is to undertake change incrementally.

Yet this need not necessarily follow the same linear path of larger agencies which have gradually morphed activity over decades, generally in line with technology developments. For example, Southeast Asia is experiencing a significant uptake of cloud-based services accessed through mobile devices. This suggests the potential for a 'leap frog' step change to content purpose built for cloud – mobile platforms, rather than incremental pathways.

In the following sections, we locate the strengths and challenges for the online services delivered during the COVID. Given the digital divide, some organisations are in a position to consider transformative, digital first change. Those at the early stages of digital services are likely to consider an incremental approach, while some may be able to step change to cloud / mobile first online services.

⁷⁶ Source: <https://mw20.museweb.net/paper/digital-transformation-its-a-process-and-you-can-start-now/>

Victoria online services – the path ahead

Cultivating digital leadership

Backing from institutional leadership emerged as a determining factor in online delivery. Such leadership need not be technically expert but should be knowledgeable of the capabilities and constraints of devices and platforms. Alongside informed senior leadership, digitally skilled change agents within organisations are crucial to focusing attention and driving digital transformation opportunities.

A feature of leading GLAM practice is openness to collaboration and partnership with external experts, be they SME's in the screen and games sector or the higher education sector. Where possible, the general recommendation is to use existing technology and systems rather than make investments in hard infrastructure that leads to path dependency and unsustainable operational costs.

This does not necessarily imply that digital experts are not needed in-house. Rather, what is needed is a sophisticated understanding within leadership ranks of the capability of digital distribution. There is a need to understand what platforms and devices to invest in, how to unpack open-source models, to test partnerships and evaluate the merits of sector-wide shared resources, including impact on energy consumption.

Digital literacy and skills

Despite uneven adoption, the forced change of the pandemic meant most people found digital had become core to their GLAM sector role. This hugely accelerated digital literacy and appreciation for the value of digital services within the sector. Rapid digital adoption also opened the door to a less formal, more empathetic, and more decentralised voice for the sector.

Collectively, the sector and its composite parts have moved towards embracing a digital culture as part of business as usual. At the same time, the pandemic exposed huge gaps in digital literacy and skills - both for GLAM staff and cultural producers working with them. One clear challenge is the critical need for greater digital skills right across the sector. Given the competition for high quality digital content producers – and a wider market able to pay rates often considered out of the reach of the GLAM sector - there is an opportunity to upskill existing staff through collaboration with the higher education sector and SMEs, and through internship programs for digital media graduates.

Generating digital-first content

COVID rapidly escalated efforts to extend audience engagement beyond the walls of the gallery and create digital-first experiences. During lockdown many in the GLAM sector experimented rapidly with content to suit digital needs, often putting out less polished content with far greater speed.

While the rough edges had their own charm and engaged a captive audience, there is a need to set objectives and metrics that ties to whole-of-business strategies. Online content production and management needs dedicated focus and

resources to confidently chart a way to a hybrid future of onsite and online services and compelling experiences.

Maintaining momentum

As physical sites reopened, audience expectations and behaviours increasingly mean the GLAM sector is expected to offer experiences designed for engagement anyplace and any time, and at similar quality of content and production value as onsite delivery. However, gaps remain in understanding total user experiences across different audiences.

There is a need to take an integrated approach to curating the digital layers across physical visits and online interactions. This should foreground the diverse needs of audiences in ways that uplifts First Nations peoples, celebrates difference and empowers those less able. There is a need for greater people-to-people linkages and inter-cultural competencies to better understand the needs to diverse audiences.

Emerging technologies, partners, business models

The research has identified the win-win opportunities of partnerships with tech companies, higher education and ready-made new audiences within online culture. Videogames has emerged as a great fit for born digital collections and contemporary artists and this trend will accelerate as next generation 'hybrid' content emerges.

The mechanism of collaborative labs with higher education and tech companies enables the sharing of risk when exploring the capability digital technology has to activate collections and reach new diverse audiences. Such 'labs' need not have a physical presence, but can operate as virtual distributed units that 'walk the talk' of online collaboration and distribution.

The challenge and opportunity of blockchain

Blockchain technology manifest as NFTs and Digitally Autonomous Organizations (DAO) is challenging for the GLAM sector. Monetaring existing collections through the sale of high-resolution digital replicas be they image, video or 3D scan – authenticated and traded as NTFT's - has ethical and reputational risks. However, given the emerging number of creative producers exploring this model, it would seem inevitable that collections will include NFTs in the future. A similar challenge exists with the possibility of DAO.. The bottom-up structure of an autonomous system that enacts decisions and makes many administration systems redundant, empowers content producers and audiences, challenging the top-down management and authority of traditional GLAM operations. As with all potentially disruptive technologies there is an opportunity to engage early and help shape the future.

Achieving an industry utility for the creative industries will require cooperation between cultural institutions and other key stakeholders such as collecting societies. We suggest that this conversation commence soon in order to ensure that the blockchain ecosystem evolves in favour of creative practitioners.⁷⁷

⁷⁷ Source: <https://apo.org.au/sites/default/files/resource-files/2019-11/apo-nid267131.pdf>. P. 26.

Southeast Asia online services – the path ahead

Pivot to a new market

The GLAM sector in Australia has tapped into global demand by focusing on key countries of origin for cultural tourism. Pre-pandemic the emphasis was on China, United Kingdom and United States. While these will continue to have presence, Malaysia and Singapore have been identified as rising markets and there is significant untapped potential in the wider Southeast Asian region.⁷⁸ Strategies are needed to carve out market share in environment that is increasingly global, congested, and competitive.

Capitalising on existing market strengths

By developing online distribution as a world class experience, there is an opportunity to showcase Victorian work that can't be seen elsewhere. These include First Nations content, historic and contemporary Australian artists, and through windows into cultural production (artist studios, conservators, arts-science collaborations, etc.). This can offer a 'taster' for cultural tourism through digital exhibitions and streaming talks and workshops.

Strengthen the capacity and capability to deliver and scale digital cultural services

Victoria has world leading design, film, animation and videogame industries that also provide services to varying degrees to the GLAM sector, but the Australian market is small. There is potential to realise growth by showcasing Victorian produced online content to audiences in Southeast Asian countries, who are increasingly digitally sophisticated. The potential service exports could also leverage from Victorian expertise in collecting, preserving and presenting heritage and archive collections. There is a growing appetite across Southeast Asia to capture and make cultural heritage accessible. Victorian expertise could enable institutions in Southeast Asian economies that are at the early stages of digital transformation to step change, leapfrogging from a low base to use motion capture, 3D scanning and photogrammetry to produce content tuned to cloud based mobile platforms.

Actively develop collaborative partnerships with strategic players in the region

The above scenario of growing the export of digital services could be seeded through co-curating collaboratively with institutions in Southeast Asian markets on online content tailored to audiences in target markets and market segments. A program for a targeted engagement strategy could be developed through the proposed Victoria – Southeast Asia Trade Taskforce which aims to bring together Victorian business (eg: companies, industry associations, business chambers); research institutes (eg: universities, Asia Society Australia, AsiaLink); and policy makers involved in, or interested in, building trade and investment with Southeast Asian countries.⁷⁹ A work program on digital cultural services within this taskforce focused on priority existing and emerging Southeast Asian markets could stimulate cultural exchange by identifying priority market segments, developing collaborative audience surveys and inaugurating a range of awards for online content and hybrid residencies. The work program could also support further research and analysis on market information as well as policy and regulatory settings to better inform specific export strategies.

Understanding a diverse market and building trust

The research has highlighted that the Southeast Asian region is complex with differing languages, digital platforms, expectations and cultural norms. A key challenge is to understand the differing market dynamics across the region. There is a pressing need to undertake further research into market drivers and demands for the GLAM sector at the country, location and market specific level. This could be facilitated by prioritising people-to-people linkages across the creative industries, business and academia as well as leveraging existing connections through diaspora and alumni networks to strengthen inter-cultural competencies. Cultural and business exchanges between institutions and key markets should be established and strengthened. Targeted research and analysis of audience and market needs across countries and locations should also be advanced to inform export strategies.

⁷⁸ Source: <https://creative.vic.gov.au/research/reports/victoria-asia-cultural-engagement-research-report>

⁷⁹ ATIH 2022, VICTORIA AND SOUTHEAST ASIA: BUILDING TRADE IN THE REGION BEYOND COVID-19

Section seven: Scenarios for the future

A framework for online services

The establishment of a rigid framework for Victoria's GLAM sector to deliver online services is unfeasible given the variation of digital sophistication and resources for each organisation.

Instead, a framework has been developed which identifies strategy scenarios to expand digital services through a toolkit of options to enable the sector to build digital capabilities based on digital maturity and resources.

Defining impact

The framework focuses on generating impact geared towards:

- increasing the **quality** of digital services supplied by the Victorian GLAM sector and Victorian SME's servicing the sector nationally and internationally
- increasing **access** to digital cultural product by a diversity of users
- increasing **demand** for Victorian digital cultural services in Southeast Asia

Although strategic scenarios have been separated into local and Asian market interventions, they should be considered interlinked. Delivery of local interventions will support skills and growth that can be channelled to neighbouring markets.

Levers for change

The scenarios outline a series of interventions which can be combined in different ways to help to bridge the gaps in Victoria's GLAM sector's digital service capability and capacity. Types of mechanisms considered are outlined in the table below.

Legislative	Advocacy	Engagement	Investment models	Management
Regulatory enforcement	Vision and road mapping	Convening and partnering	Content creation	Governance
Legislative change	Research and impact	Capability building	Content distribution	Procurement
	Awareness raising		Physical and digital infrastructure	Employment practices
				Asset management

State government is seen as a critical change enabler. Fostering advocacy from the top will propel the GLAM sectors' digital services to new levels to reach fresh audiences, export Victorian content to global markets and deliver accessible content that reduces the digital divide.

However, the State is not considered the only enabler. While some levers are clearly the domain of government (e.g. legislative change) others can be implemented by a combination of state government, peak bodies, GLAM organisations and partners from public and private domains.

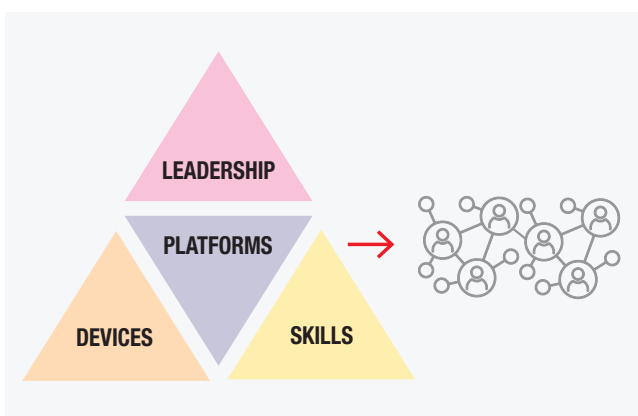
Digital Divide Framework

As already outlined, the digital divide can be addressed via a model that identifies four interlinked components:

- leadership that understands the capability and strategic value of digital services.
- platforms that are accessible to institutions and audiences.
- devices that are commonly present within the application context.
- skills within institutions to generate and manage engaging digital content.

The digital divide model enables a way for GLAM institutions to evaluate current capacity and consider steps forward to enable positive change.

Figure 14: Diagram of digital divide framework (Moloney, 2022).



Digital maturity

Success will look different across the sector depending on available resourcing and skills, ambition, and purpose. Scenarios options have therefore been categorised against levels of digital readiness, aiming to lift maturity over the short to medium term (12 months to five years):

- **Low:** limited existing digital policies, processes and tools, minimal budget and basic in-house capability. Strategy options are simple and aim to cement a digital presence.
- **Mid:** well-established digital policies, processes and tools, reasonable budget and some in-house capability. Strategy options are more complicated and move toward incremental innovation.
- **High:** mature and ambitious digital policies, processes and tools, significant budget and in-house expertise. Strategy options are advanced and aim for digital transformation.

These categories are not absolute. Different organisations may have different maturity levels in specific focus areas. For example, a large public library may have high digital maturity related to activating the collection but comparably low maturity in user experience. The toolkit of strategy scenarios is designed for a combinatorial approach based on the needs of organisations and sector segments.

Priority areas

Based on the research outcomes, scenarios have aligned to the following areas:

- **Activate the collections:** create many points of accessible, relevant entry
- **Improve user experience:** extend and enhance audience visitation and use of GLAM services
- **Grow diversity and inclusion:** remove barriers to entry and hold space for marginalised voices
- **Sustainable business models:** embed digital services within an overarching strategy underpinned by financial, organisational and environmental aims.

Boosting impact in one area has the potential to uplift others. For example, user experience is likely to be significantly improved when considered in tandem with diversity and inclusion.

Online services growth in Victoria

It is important to note that some of the proposed scenarios are already in play within the Victorian GLAM sector.

For example, training webinars and information hubs were prevalent prior to COVID and have proliferated during pandemic. The intention is not to rebuild the wheel. Rather it is to highlight the importance of these mechanisms and their wider promotion to the sector note where a 'light touch' update may be valuable to advocate for continued resourcing to ensure content is maintained and relevant.

How to better activate the collection

	Leadership	Skills	Device	Platform
Low digital maturity	Create a how-to guide for the development of a digital strategy underpinned by a mission-based approach.	Undertake a digital skills audit to prioritise future staff skillsets Establish knowledge portals for tutorials to up-skill GLAM staff on digital content development for low-cost platforms (e.g. YouTube, Instagram).	Identify pathways for Bring Your Own Device utilisation (Airdrop, QR codes) as a low cost, low barrier mechanisms to share collection provenance and stories.	Establish and promote a list of suppliers for free and low-cost digital platforms.
Mid digital maturity	Propel the GLAM digital capabilities through a state-lead Digital Culture Strategy focused on making collections more discoverable online	Invest in development and training pathways to up-skill GLAM sector capabilities to develop online collections content which optimises: -Digital exchange -Data analysis -Presentation (content and interactive)	Identify partnership funding opportunities for co-investment for content and device development and deployment (private, crowd sourcing, philanthropic, public).	Develop sector knowledge about platforms to collect, preserve and present born digital content exclusive to digital access Pilot digital content 'touring' through platforms to showcase and reach wider audiences at a global scale.
High digital maturity	Better understand collection use to promote value and inform future decision making by capturing, analysing and sharing sector-wide data insights about online collection access.	Continue to share knowledge and learnings nationally and internationally, and across the sector, to support digitisation and online storytelling.	Establish future focused digital R&D labs to explore emerging creative technologies.	Pilot project investment to partner with Victoria's SME's and artists for ground-breaking online projects utilising collections Cultivate digital hubs for formal and informal digital skills exchange in identified gap areas e.g. digital mentoring and digitising collections.

How to improve user Experience

	Leadership	Skills	Device	Platform
Low digital maturity	Develop a checklist for improving basic aspects of digital user journeys to build in-house expertise and workplace acceptance.	Establish how-to guides for developing uploading collection content for web publishing platform (e.g. technical, shooting content and back lighting) Initiate style and writing guides to personalise digital voice and establish a virtual presence.	Clarify hard/soft infrastructure required for device establishment, including use of free and open-source options.	Articulate benefits for conducting webinars, virtual workshops and online streaming for exhibiting and accessing collections. Expose opportunities for showcasing creative making and development stage to enable personal connections.
Mid digital maturity	Establish digital showcases (e.g. Slow Art Day) to encourage audiences to engage with online content longer, realise digital offering extent and promote repeat audiences – integrating audience feedback loops.	Guidance for creative producers to develop digital-first content designed for online platforms. Reevaluate segmentation for tailored engagement strategies and emerging and dynamic patterns and behaviours.	Initiate partnerships with tech companies and the games sector to accelerate development and scalability of gamified experiences.	Differentiate physical and digital spaces by developing exclusive digital first content (e.g. virtual viewing rooms) Deploy market analytics tools to identify existing and new audiences, gaps in content, interest levels, opportunities to monetise content. Develop a digital ‘help-desk’ for the sector to troubleshoot problems and share knowledge for solutions.
High digital maturity	Celebrate digital success and growth through establish of Australia and SE Asia Digital Design Awards Raise organisational priorities to allocate appropriate funding for digital content delivery (comparable to physical content allocations).	Develop Business Case for development of tool which support digital initiatives, identifies best practice and tracks organisational digital progress (e.g. Digital Culture Compass UK). Build in-house skills and resources to drive user experiences through digital journey mapping templates (e.g. wireframes) to improve and integrate online experience.	Pilot and measure interaction tracking to enhance and personalise users experience with the (curator or AI generated prompts).	Articulate the value of, and widely promote, open-source code to expand sectors insight and knowledge of digital opportunities. Better understand digital impact by expanding Creative Victoria’s Audience Atlas to report on audiences through digital platforms.

Improving diversity and inclusion

	Leadership	Skills	Device	Platform
Low digital maturity	Develop minimum requirements/ standards for accessibility of digital content for diverse audience abilities.	Create how-to guide for inclusive online content development such as language and font/images/ colour. Continue supporting libraries in delivering audience digital literacy training online and onsite.	Advocate the utilisation Bring Your Own Device and utilise browser-based capabilities (Airdrop, QR codes).	Pilot open-source channels for audiences to record and spare perspective through audio descriptions of collections.
Mid digital maturity	Initiate investment opportunities for marginalised voices to co-develop digital content with digital mentors (First Nations people, regional communities).	Uplift capabilities for inclusionary digital content through courses developed by sector leaders and fed through networks.	Establish of minimum device standards compliant for low vision and limited mobility.	Map audience capabilities to inform platform adoption and adaption.
High digital maturity	Develop scheme for audiences unable to access online or onsite content (e.g. due to varied internet speeds and connection strength) through subsidies such as broadband vouchers. Explore opportunities to capture value to support digital inclusion e.g 'tech tax' for high-net-worth companies dedicating financial contributions to reducing digital divides (e.g. broadband access, devices provided to low SES communities).	Bring-skills in-house or partner to (i) manage access to content restricted for cultural reasons (ii) tailor online content for CALD communities (iii) tailor content for a range of accessibility access. Research the impact of digital divide on Victoria's education attainment, social cohesion and ability to innovate to inform future investment.	Ensure future and retrofitted devices are fitted with assistive technology. Offer temporary onsite and offsite access to minimum standard of device.	Establish shared protocols for access to materials restricted for cultural reasons.

Building sustainable business models

	Leadership	Skills	Device	Platform
Low digital maturity	<p>Advocate for Board and executive level support for full lifecycle investment to enact digital services</p> <p>Map partnerships for co-investment and content development opportunities e.g. education institutions, tech companies and venture capital funds.</p>	<p>Develop how-to guides for basic web analytic evaluation, building capability and informing future digital programming and development.</p>	<p>Establish plans to considers 'whole of life' impact of devices for sustainable use.</p>	<p>Measure what matters – ensure the right platform analytics are captured to understand/uptake and value of digital content.</p>
Mid digital maturity	<p>Roadmap business models and governance operations for organisational digital arms at a range of scales (micro, small, medium).</p> <p>Investigate best practice for data ethics, including privacy and use of data.</p> <p>Advocate award wage for creative and artist digital content development to mitigate creatives practitioners being exploited.</p>	<p>Influence education policy to incorporate workforce-ready digital service delivery through course outcomes.</p> <p>Investigate viability of digital job share opportunities to service and share knowledge between multiple GLAM organisations.</p>	<p>Identify procurement methods which support opportunities for Victorian small to medium digital content providers.</p> <p>Research and evaluate the benefits of off-the-shelf versus custom built devices and systems.</p>	<p>Research into opportunities to better monetise online content (e.g. marketplace).</p>
High digital maturity	<p>Consider governance requirement for better data sharing regarding online use.</p> <p>Assess the relative carbon impacts of online service delivery, onsite delivery and combined delivery.</p> <p>Convene a review of copyright protections to determine gaps in exposure and identify opportunities for further protection sector (e.g: right to recognition).</p> <p>Explore the value of shared digital infrastructure platforms (e.g: insurance, storage, software) for sector to optimise resources.</p>	<p>Establish role to monitor the environmental sustainability impacts of digital service delivery.</p>	<p>Mandate carbon calculation for whole-of-life costs to make informed decisions on sustainable deployment and reuse of devices.</p>	<p>Mandate carbon calculation and reporting for platform utilisation.</p> <p>Test viability and feasibility of blockchain opportunities e.g: ticketing, digital marketplaces, authenticating provenance.</p> <p>Explore resource, business and licencing implications for delivering on-demand content and subscription services (e.g: time limited streaming, TVOD).</p> <p>Remove complexity of digital archiving for by expanding Victoria's Digital Collections Program to host sectors archives, supporting organisational financial sustainability and ongoing access.</p>

Online services engagement in Southeast Asia

	Leadership	Skills	Device	Platform
Low digital maturity	<p>Integrate international opportunities as an aspect of digital strategies.</p> <p>Create a work program on digital cultural services within the proposed Victoria - Southeast Asia Trade Taskforce to identify priority Southeast Asian markets and market segments for engagement.</p> <p>Map digital audiences across Southeast Asian markets to identify priority areas for cooperation. SE Asia audiences are highly sophisticated, digitally literate, geographically distinct and different in ways to Western audiences.</p>	<p>Assess market readiness of organisational partnership opportunities across Southeast Asian markets to build connections with SE Asia.</p> <p>Undertake case studies in key market segments across target markets for method and delivery of digital exchange to establish best practice approaches.</p> <p>Initiate how-to guides for platform integration and accessibility (language/culture) to expand content reach to audiences in Southeast Asian target markets.</p> <p>Prioritise actions to deepen people-to-people linkages between Victoria and Southeast Asia across the creative industries and improve inter-cultural competencies. For example, through organisational and business exchanges for students and/or professionals.</p>	<p>Research into commonly used devices in target SE Asian demographics.</p>	<p>Prioritise content exploring uniquely Victorian stories e.g. First Nations narratives, Victorian cultural history, contemporary art by homegrown.</p> <p>Develop business models which target social media content for audiences in Southeast Asian markets and market segments.</p>
Mid digital maturity	<p>Tailor services to meet demands in key Southeast Asian markets by improving the baseline understanding of unique drivers and needs in specific geographies.</p> <p>Establish digital residencies in key markets, potentially coupled with in-person visitation to build networks and discover best practice approach.</p> <p>Undertake further research into market drivers, demands and cost points for demographics on a national and local country basis with evidence base data.</p>	<p>Pilot co-curation of digital showcases with representatives from Southeast Asian countries, tailored to audiences in these countries.</p> <p>Translate online content into local languages for priority markets.</p> <p>Showcase exclusive works through digital platforms (First Nations, historic and contemporary Australian artists) to audiences in key markets to boost cultural exchange.</p>	<p>Utilise content delivery through existing devices used in Southeast Asian markets.</p>	<p>Shift to collaborative content building with counterparts in Southeast Asia to develop and design locally relevant platforms.</p> <p>Offer 'taster' of collections through digital exhibitions (e.g: matterport walkthroughs with curator voices shared in language).</p>
High digital maturity	<p>Assess current regulatory settings in priority markets for tax incentives and investment to ensure policies support global market growth. Address regulatory settings as part of the Taskforce work program (see above).</p> <p>Develop a program to map and share cultural tourism online and onsite access and visitation data to inform tourism offerings in key markets.</p> <p>Establish the Australia/ Southeast Asia Digital Design Awards to celebrate collaborative digital success.</p>	<p>Undertake research on country and geographic specific audiences to feed into digital content development.</p> <p>Promote digitisation of library and archive services focused on preserving cultural artifacts in the face of disaster recovery.</p> <p>Co-curate digital showcases tailored to audiences in key markets, co-curated with professionals in these markets.</p>	<p>Test interoperability of content with mass adopted devices in relevant geographies and market segments.</p>	<p>Conduct in-depth research to understand platform preferences in particular SE Asian markets and prioritise use to enable content exportation.</p> <p>Scope collaborative programming for galleries and museums that delivers parallel exhibitions in different geographies with interactive programming.</p>

Conclusion

This research has documented leading GLAM practice in the provision of online cultural services dictated by the pandemic. In Sections three to five a desktop review of global, Southeast Asian and Victorian activity was undertaken. This was supplemented with interviews with Victorian GLAM agencies, creative digital service providers and a workshop with academic experts.

From the desktop review and analysis of interviews and workshop, opportunities and challenges for online services have been outlined in Section six. These consider how to activate Victoria's GLAM collections, enhance user experiences and advance diversity and inclusion while delivering sustainable business models. This section also includes opportunities and challenges in fostering cultural exchange between Victoria and Southeast Asia.

In Section seven, future strategy scenarios for online services identify a range of tools and mechanisms to enhance and grow the Victorian GLAM sector's capability and capacity to deliver online content, with a particular focus on exchange with SE Asia. The strategy scenarios use a framework that recognizes the differences in digital maturity across the Victorian GLAM sector.

Key findings include the following

Leading edge performance:

Victoria Arts Agencies were, overall, at the leading edge of digital cultural service delivery during pandemic. Culturally-oriented digital SME's also played a significant role in rapid innovation across the service offer, often working closely with larger organisations and agencies. It should be noted that the cost of engaging these expert SME's, combined with limited internal digital literacy, was often a barrier to the wider sector rapidly adopting to a sophisticated online delivery program.

Digital maturity varies:

Significant variation in digital maturity across the Victorian GLAM sector. Perhaps unsurprisingly, practitioners and organisations who were digital-led pre-pandemic fared best during COVID and will likely continue at the vanguard of digital cultural service delivery. Given the continued appetite for on-demand content, there is value in supporting digitally mature organisations to keep breaking new ground. Equally, ongoing investment in bringing - and keeping - less digitally mature parts of the sector to a baseline level of capability and capacity will pay dividends in growing cultural impact.

Asian opportunities:

There is ample opportunity to grow a Victorian presence in Southeast Asia through commercial export and creative exchange of digital cultural services and content. Developing a vibrant marketplace will require a dedicated regional focus encompassing a nuanced analysis of specific demographics, digital ecosystems, business environments and appetite for cultural services. Any audience attraction and sector servicing strategy should consider opportunities for the entire Victorian creative digital ecosystem.

Support for expansion into a regional marketplace could boost opportunities for Victoria's homegrown SME's, currently limited by the Australia's small market size. Enhancing cultural exchange opportunities with the medium sector can deepen the richness of the state's creative production while an arts agency focus offers opportunity to lift Victoria's profile as a desirable place to live, work and visit.



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