

# Cultural and Technological Disruptions

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*With the digital space becoming the common, dominant medium for transmission and proliferation of ideas and experiences, it is an increasingly pressing challenge for the arts and cultural sector to navigate and utilise this space effectively. This essay examines the multitude of challenges and opportunities of the digital realm for arts and cultural institutions, and explores some emerging approaches and solutions.*

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Anxiety over technology's impact on the arts and culture is neither novel nor inventive, with this theme revisited with greater fervour at the turn of each industrial revolution. Artistic practices have always been shaped by the technologies of its time, and terms such as "new media art" have their roots in the late 1990s/early 2000s and essentially refer to art enabled by emerging and new technologies of the day. In the present-day context, we commonly associate it with artistic creation through digital technologies, such as artwork that engages with the internet-as-a-medium, or virtual art that presents a layer of immersion and interaction that fundamentally alters the dimensionality of art.

Beyond artmaking, the digital revolution of the 21<sup>st</sup> century has seen the channels of distribution both expand and contract, creating a tension that oscillates uncomfortably between opportunity and tyranny. The paradox is that while the digital medium has enabled communication-at-scale and a world without borders which in theory opens a whole new world of opportunities for artists and cultural practitioners, control of the channels of distribution resides with the few and powerful such as social media and market-dominant platforms like Netflix, Instagram, Facebook, Spotify, and the like. Issues such as net neutrality are thus fundamental in ensuring a level playing field, but it is still essentially a pay-to-play market dominant system, and herein

lies the crux of the issue. More so than any gap in skills or lack of endeavour, one of the main challenges for the arts and culture community is how to navigate this highly congested and contested digital space to carve a sustainable niche for itself.

In examining this challenge, it is first necessary to define the characteristics of the digital space within which we operate. The first characteristic is that digital space is also a psychological space. One of the key challenges that arts and cultural institutions face is the competition for the time-poor, rather than the cash-strapped audience. If we think of the digital domain as a space that is both intangible and inexhaustible, we also acknowledge that its currency is attention and participation.

Secondly, digital content is often expected to be free. This characteristic stems from the conception and perception of the internet as a common good. In Singapore, the National Arts Council's survey results on digital arts consumption (26 March 2021) revealed that 85% out of 3,314 people surveyed opted for free content, while only 15% paid for digital content (Ong 2021). When free content is the default within the market, the game has fundamentally shifted as the audience (or more specifically the data related to the audience) is now the source of leverage for company and organisations wishing to capture value from this segment. In the digital or online space, it is not necessarily about what audiences are willing to pay to consume online content, but what advertisers are willing to pay to content creators. The arts and culture sector has arguably not yet caught on to the nuances of this disruption and how to better navigate this space so as to be financially sustainable.

A third and final characteristic worth mentioning is that digital content is infinitely replicable and

transmissible and thrives on micro-exchanges that build upon what is commonly known as the “network effect”, the phenomenon by which the value derived by the user increases with the number of users of compatible products or platforms. It is thus scalable by default and social by design. It thrives on social media, and mobile-first engagements, and communicates in a language that can be both abstract and alienating for the uninitiated (for example in the case of memes, micro-trends, and challenges).

How are these relevant? While these issues pre-date COVID-19, the pandemic has enforced a digital-by-default mode of working, interacting, and consuming for a prolonged duration to the extent whereby habits and behaviour have been invariably changed. The arts and culture sector’s value chain was severely disrupted—after all, a digital-by-default online performance simply pales in comparison to well-produced big budget content by large studios and corporations such as Disney and Netflix, and does not fare well either against the marketing-friendly model of three-minute click-bait videos aimed at maximising digital advertising revenue. In short, arts and culture content for the digital space is not able to benefit from the current value chain right now.

As such, there is a pressing need for the sector to generate new approaches to how it wishes to navigate the digital realm, and also define what success is for the sector even as it drives the technology agenda forward. The Australia Council for the Arts for instance has recently put forward its Digital Culture Strategy (2021-24) to guide its approach and priorities for digital development. By doing this, it believes that it can harness the opportunities presented by the digital and broad then social, economic, and cultural value of arts and culture. It also notes that digital technologies are fundamentally changing how people engage with and experience arts and culture, and that

developing digital capabilities will enable a more dynamic and resilient arts and cultural workforce (Australia Council for the Arts 2021).

Issues around the impact of technological transformation certainly pre-date the COVID-19 pandemic. Since 2013, Arts Council England, the Arts and Humanities Research Council, and Nesta, the UK’s innovation agency for social good, have commissioned an annual report on digital culture, providing insights on how arts and cultural organisations in the UK use and are impacted by technology in the face of disruption brought about by digitalisation (Arts Council England, Nesta, and Arts and Humanities Research Council, n.d.). The report provides a rich set of data and observations that is largely relevant to arts and culture sectors globally. It focuses on three areas: business models and income generation; audience development and data use; and research and development.

Some key trends highlighted in its 2019 report (pre-pandemic) are that only 22% of organisations find that digital technologies have a major impact on their revenue and profitability, which implies that over three quarters of organisations have yet to derive major benefits from digital technologies in this key business area. In terms of perceiving the importance of digital marketing, digitalised operations as well as preserving and archiving poll results, over 74% of organisations surveyed (88% for digital marketing) accord importance to the role of digital technology in those activities, as compared to 49% for impact on business models.

A well-rounded report released in March 2020, *Supporting Culture in the Digital Age*, by the International Federation of Arts Councils and Culture Agencies (IFACCA) asserts that the digital age entails new logic, one that is linked to collaboration, connection, and horizontality, and observes that we are now dealing with a new type of audience from that of past decades,

and that the rise of streaming and social media is rendering obsolete notions of ownership and collection, particularly for younger generations (Kulesz 2020, 28). The emergence of a digital experience sharing economy that is connected and communicates only through digital channels also means that arts and cultural institutions that wish to maintain a digital presence need to tap into that greater collective desire for engagement, and this is likely to fall beyond their tried and tested methods. Particularly for many of the smaller arts and culture practitioners, the lack of know-how, resources, and time to invest in exploring these connections form the greatest barrier.

It is certainly not all doom and gloom for the arts and culture community in Singapore. As we gradually move to define our post-pandemic operating norms, we have seen the sector rally and reinvent itself to emerge more resilient from this generational crisis. One notable example can be seen in home-grown theatre company The Theatre Practice, who has responded admirably to the challenge. It pivoted quickly to the digital format with well-thought-out and made-for-digital sessions across its theatre classes, as well as an online learning edition of its acclaimed *Four Horse Road* production as a learning and teaching resource for teachers and educators. In August 2021, it launched a new performing arts series, *It's Not About The Numbers* which comprises six live in-person programmes for audiences as small as one (Chia 2021). Artistic director Kuo Jian Hong professes that smaller settings will allow audiences to “discover intimate connections through bite-size adventures and surprising encounters” and that smaller audiences make works more resilient in the face of such changes (Chia 2021). What is heartening is how the company has quickly set aside the

disappointments resulting from the crisis and grasped the opportunities instead.

Museums in Singapore have also moved to embrace a digital-first approach as they step up digital offerings both online as well as onsite. Reaping the benefits of its DigiMuse Culture x Technology innovation programme set up in 2017, the National Heritage Board's (NHB) portfolio of museums and institutions was able to respond quickly to the crisis. The National Museum of Singapore's *An Old New World Digital Edition* online exhibition demonstrated the value of such digital experiences through good quality digital content and presentation. The Asian Civilisations Museum also released a digital version of its newly launched permanent galleries on Fashion and Textiles, Jewellery and Ceramics to increase access to its galleries. NHB was also able to scale up its prototype solutions to launch several AI-enabled chatbots within three months to provide digital access to museum content including translations, interactive games, and augmented reality experiences for its visitors in place of touch-based experiences. This also marks a significant milestone towards more customised and personalised experiences for its visitors, as it adopts a data-centric approach in keeping with technology and industry trends.

Since 2017, NHB has been steadily building connections between the culture and technology sectors through DigiMuse, which has provided steady impetus for its museums and heritage partners to co-create solutions that take a long-term view on capability development and experimentation on top of addressing immediate needs. To date, DigiMuse has supported more than 40 pilot and prototype projects in new and emerging technologies as well as in the field of digital innovation. It continues to push boundaries as it ventures into new areas of online

and offline virtual and hybrid experiences, and engages in meaningful exchanges with both local and international partners to leverage frontier technologies in developing new solutions for the industry.

In addition, a growing innovation ecosystem among local arts and cultural institutions is noticeable, comprising NHB's DigiMuse programme, National Gallery Singapore's Co:Lab X initiative, the Y-Lab technology incubator launched in 2020, and the National Arts Council's Arts x Tech Lab launched in 2021. Working in tandem to drive the innovation agenda, these represent a next step for the Singapore arts and culture sector in its digital maturity and digital transformation journey as it seeks to actively tackle and address opportunities and challenges brought about by new and emerging advances in technology such as the application of Non-Fungible Tokens (NFTs) for the art market, the development of Artificial Intelligence (AI) solutions in areas such as robotics, as well as generative design as a potential disruptor to art-making, presentation, distribution, and delivery.

The IFACCA report concludes with a view that in their emergence from the challenges of digital transformation, public agencies in the arts and culture sector could stand at the forefront to lead other sectors in innovation and creativity

(IFACCA, p 35). This certainly concurs with what we see within the Singapore arts and culture sector. What is crucial in the journey towards success is how the entire sector may be uplifted from these efforts. To support this broader sectoral transformation, we need a combination of direct effort from the agencies to push the innovation agenda, as well as funding support through the National Arts Council's grants for the industry such as the Organisation Transformation Grant for the Arts launched in June 2021 that looks beyond one-off projects and seeks instead to build core capabilities and collaboration within the sector (National Arts Council 2021).

The digital revolution has created industries and sectors that are more interconnected than ever and needs to be viewed as an entire network of partnerships and collaborations to be carefully nurtured and supported. The creative sectors cannot stand alone and need to actively engage with emerging technologies to maintain relevance as well as drive the collective forward in dealing with current and future disruptions. With or without the pandemic, digital disruption was always inevitable. From artistic creation to value-chain optimisation, the arts and culture sector undoubtedly has important choices to make as it seeks to ride the waves of technological developments to forge the way ahead. □

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## About the Author



Jervais Choo is Programme Director for the DigiMuse project which aims to advance digital innovation within the culture sector. Over the past decade, he has helmed various portfolios at the National Heritage Board, Singapore, where he headed the Festivals and Precinct Development division responsible for placemaking for the Bras Basah-Bugis Arts and Heritage District. He was also formerly Deputy Director for the National Museum of Singapore. Choo currently leads the public sector transformation and innovation design efforts for the National Heritage Board and has a keen interest in bringing together new methods of bridging experience and understanding through contextual layering and digital interventions.

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