KEIR WINESMITH AND SUSE ANDERSON

THE DIGITAL FUTURE OF MUSEUMS

Conversations and Provocations

THE DIGITAL FUTURE OF MUSEUMS

The Digital Future of Museums: Conversations and Provocations argues that museums today can neither ignore the importance of digital technologies when engaging their communities, nor fail to address the broader social, economic and cultural changes that shape their digital offerings.

Through moderated conversations with respected and influential museum practitioners, thinkers and experts in related fields, this book explores the role of digital technology in contemporary museum practice within Europe, the U.S., Australasia and Asia. It offers provocations and reflections about effective practice that will help prepare today's museums for tomorrow, culminating in a set of competing possible visions for the future of the museum sector.

The Digital Future of Museums is essential reading for museum studies students and those who teach or write about the museum sector. It will also be of interest to those who work in, for, and with museums, as well as practitioners working in galleries, archives and libraries.

Keir Winesmith has been working at the intersection of technology, culture and place for the last 15 years. In 2018 he was featured in *Fast Company*'s "100 Most Creative People in Business" for this work. The former director of digital departments at *San Francisco Museum of Modern Art* and *Museum of Contemporary Art Australia*, he is currently CTO of *Old Ways, New* and Professor at UNSW Art & Design.

Suse Anderson is Assistant Professor, Museum Studies at The George Washington University, and co-producer and co-host of *Museopunks* – the podcast for the progressive museum. A former President of MCN (Museum Computer Network), Anderson teaches courses related to museums and technology, ethics and visitor experience. She holds a PhD from The University of Newcastle, Australia.

THE DIGITAL FUTURE OF MUSEUMS

Conversations and Provocations

Keir Winesmith and Suse Anderson

Routledge
Taylor & Francis Group

LONDON AND NEW YORK

For Scout, Rory, Tali, Ian, and Susan

CONTENTS

FIGURES

ACKNOWLEDGEMENTS

NETWORK (IM)PERMANENCE

We work on, with, and through the internet, and have done so since the 1990s. We are acutely aware that websites, platforms, and services come and go. Let's call it network impermanence.

All web content cited in this book uses the Internet Archive's Way Back Machine to ensure that the exact content being referenced, and its original online context, will be available to readers in the future.

Here's how to read an archived link. The first portion denotes the Internet Archive's web address, the second portion is the time stamp the page was archived onto the Archive's servers and the final portion is the URL that was archived. The below example is a snapshot of the Flickr Commons webpage taken on August 5, 2008.

```
https://web.archive.org/web/20080805061656/https://www.flickr.com/commons/
|--------------------|-------------|----------------------------|
         1                  2                    3
```

If you encounter a web link in the book that does not have the https://web. archive.org/web prefix that means that a specific time stamp for that reference is not necessary. If you encounter any broken links, you can simply enter that link into the Way Back Machine at https://archive.org/web/ and you'll find a snapshot. We've ensured that every page referenced in the book is saved at least once in the Way Back Machine, and we encourage you to do the same with web content that you cite in printed or digital material.

We both use social media platforms for research and collaboration, we've developed social media strategies for museums, and Suse has used social media in her teaching in the Museum Studies program at The George Washington University.

For this book, we encourage readers to use *#DFMBook* for the book as a whole and *#DFMBook1* for specific discussions (in this case *Conversation 1: Seph Rodney + Robert J. Stein*).

We realise that our readers will use whatever platforms they choose and whatever tags (or lack thereof) that appeal to them. If you'd like your thoughts and criticisms to be found by those who don't already follow you, or to appear outside the platform bubble you've been algorithmically assigned, we encourage you to use these tags.

For the front cover we approached the San Francisco based visualisation and analytics design firm Stamen Design, with whom Keir had worked in the past. Using publicly available collection APIs from the *San Francisco Museum of Modern Art* and *M+*, Keir created a dataset that included artist birth and death years, and all artworks by that artist in each institution's collection. It also includes when the works were acquired by the two institutions. This data was supplied to Stamen who used it to create a series of visualisations that show acquisitions across artists' lifespans, expressing how artworks are collected in life (pink) and in death (blue). The blue dots include a blur effect intended to convey an otherworldly atmosphere. From this series we selected the cover image.

"When we make space for others, we make space for possibilities beyond our imagining."

— *Nina Simon*[1]

1 Simon, Nina. 2019. "From Risk-taker to Spacemaker: Reflections on Leading Change." Museum 2.0. 2019.

FOREWORD

Courtney Johnston

The distinguishing characteristic of the people leading practice in the development of "digital" in museums is, I believe, that they are given to both action *and* theory, with a healthy side in activism. Many other industries and occupations combine a strong theoretical aspect with hands-on practice, but I see something unique in the way people who work on the web create, theorise and connect, perhaps because the mechanism we connect *through* is also the stuff we create *with*.

The Digital Future of Museums is, for me, a book about thinking. It's a book that brings into conversation a group of thinkers who characteristically do their thinking in public. The body of knowledge captured in these conversations has grown largely through the mechanisms of conferences, blogs and social media; indeed, it is through these channels that Keir Winesmith and Suse Anderson first encountered many of the contributors. As Seb Chan observes in his conversation with Shelley Bernstein, when Keir asks why both have such a commitment to working "in the open":

> For me it's about working in public. I grew up with the web, and this notion of "viewing source code" has infused my philosophy around lots of things. That we all get better if we share information, and we bring the other generations along with us. And it is about transparency and openness as a differentiator, too. I found that early on at Powerhouse. It was a way of creating an international network of peers and peer institutions that we could bounce ideas off and share information with.

Research, experimentation, documentation and reflection: by talking not only about *what* they are doing, but *how* and *why* they are doing it, and what they have *learned* from doing it – at an unprecedented volume, unhampered by the

publishing schedules or peer review of academic journals – these thinkers have shaped the discourse around museums in a new, powerful and rapid way. Moreover, this discourse has been shaped by interactivity from the outset: blogs were made to be commented on and hyperlinked, wikis to be edited, social media posts to be shared and replied to. This is one of the reasons the interview format adopted in *The Digital Future of Museums* serves its contributors and its readers so well: it supports the collaborative development of ideas fostered by the best online engagements, as well as humour, respectful disagreement and new insights.

This ethos of thinking in public is fuelled by tremendous generosity, another characteristic of this community. It is also an approach that takes advantage of the democratising effects of the internet. In this new paradigm it's not the brand name of the institution you're affiliated to but the quality of your contribution that matters. As Seb also observes, this has been particularly important for those of us working in or alongside cultural institutions beyond the traditional centres of power and attention. In the first wave of museum/digital practice, it was the voices of those people working outside the dominant centres of geographical and institutional power that had new power to be heard. Today, it's voices from beyond the dominant cultures – communities that have traditionally been marginalised, silenced or spoken *for* by the museum – that are at the forefront of changing museum practice.

The Digital Future of Museums is also a book about museums as generators and conduits of thinking. Seph Rodney identifies in his conversation with Robert Stein that museums play an important role in "having us think about our thinking, *publicly.*" Museums reflect *and* shape the perspectives of nations, societies, communities and individuals about their histories, their cultures, politics, biases and view of the future. By driving a museum's intellectual agenda, funders, management, and staff create the stories and imagery that inform (or confirm, or challenge) how a society thinks about itself. This is why museums are not, and can never be, neutral. It is also why they are such exciting and meaningful – and occasionally hazardous – places to work.

I first encountered Seph's writing in 2016, in a piece he wrote for *Hyperallergic*, based on his PhD research (Rodney 2016). In the essay, Seph traces a progression in museums from the late 19th-century paradigm of the specialist collecting institution, to the post–Second World War paradigm of the educational institution, to the 21st-century paradigm of the visitor-centred museum.[1] In the contemporary context, personalisation has succeeded education. The visitor is no longer seen by the museum as an incidental beneficiary of its core focus on collecting and categorisation, no longer viewed as a passive recipient of authoritative

---

1 For a fuller explication of these ideas, see Seph Rodney. 2015. "How Museum Visitors Became Consumers." CultureCom. 2015. https://web.archive.org/web/20190712193442/**https://culture-communication.fr/en/how-museum-visitors-became-consumers/**

curatorial knowledge, but invited to be an active participant, making their own meaning from the museum's offerings.

Seph attributes the change over the past 25 years to an intertwined set of economic, social, political and museological changes. The emergence of the new museology has placed the visitor at the centre of museum practice; cultural policies (largely in countries where museums are publicly funded) have pushed museums towards new success measures based around access and economic contribution; and the rise of the experience economy has led to the creation of museum experiences designed for consumption, according to the user/visitor's needs and desires. This framework provides a thought-provoking context in which to locate the 12 discussions that make up *The Digital Future of Museums*. The concerns of people leading digital change in our museums far exceed questions of what file format to use, or whether it's AR or VR we should bank on for visitor appeal. Within these conversations, we can see leading thinkers analysing in real-time some of the greatest limitations and opportunities that museums as social structures and services are working through today.

Throughout the conversations, you'll notice contributors offering different versions of a similar refrain: digital isn't a technology, it's a way of working; digital isn't a technology, it's a language; digital isn't special, it's just what is. This refrain brings us to the heart of this book: the fruitful, fascinating and fast-paced ways in which the development of contemporary digital technology has interfaced with contemporary museum thinking.

Like the earliest iteration of the museum, the internet was initially a research tool used by specialists and those with privileged access to (computing) power. When Tim Berners-Lee began development of the World Wide Web in 1989, his goal was to make the internet "a collaborative medium, a place where we can all meet and read and write" (Carvin 2005). With the launch of the Mosaic web browser in 1993, the internet went mainstream: now, anyone with an internet connection could "surf" this massive new global resource for information and entertainment. At this point, however, publishing power was still limited: the means of creating and consuming content were separated. The web, in some ways, was in the second museum paradigm: a place where those with access to the tools of publishing fed content and knowledge to those who primarily consumed without contributing back. We can map the beginnings of digitised collections to this moment, and the new ability for all museums to think massively beyond their local remit into global reach.

It was at the turn of the 21st century, with the rise of blogging and wiki platforms and the integration of publishing tools into the medium, that Berners-Lee's vision was fulfilled: the web as a two-way system, where "ordinary" people could contribute content as easily as they accessed it. This was the read/write web: a medium capable of being displayed (read) and also modified (write). The congruence here between the new affordances of the web and the new approaches to exhibition and experience design fascinate me; all fed by people's

growing expectations that their experiences and opinions warrant recognition and sharing.

In 2005, Tim O'Reilly (2005) published *What is Web 2.0*, an analysis of design patterns and business models that he saw underlying the companies that had survived the 2001 dot-com bubble burst. The codification of Web 2.0 highlighted collaborative services, "harnessing the collective intelligence," and the power of user-generated content. This was the age of Wikipedia and Flickr; of folksonomies and tagging; of RSS and viral marketing. It's when *Time* magazine made its 2006 Person of the Year *You*, recognising the millions of individuals who were now populating the web's content, and when ideas of co-creation, co-curation and community participation went mainstream in museums.

Writing in 2017, technology commentator Alexis Madrigal observed that "Web 2.0 was not just a temporal description, but an ethos." It was a picture of the truly open web; an almost Utopian vision of humankind working together for global betterment. "But then," writes Madrigal,

> in June of 2007, the iPhone came out. Thirteen months later, Apple's App Store debuted. Suddenly, the most expedient and enjoyable way to do something was often tapping an individual icon on a screen. As smartphones took off, the amount of time that people spent on the truly open web began to dwindle. . . . The great cathedrals of that time, nearly impossible projects like Wikipedia that worked and worked well, have all stagnated.
>
> *(Madrigal 2017)*

Madrigal's analysis matches with a feeling I developed in 2015, as I toured around museums in seven American states studying digitally enhanced visitor experiences (Johnston 2016). Overall, as I visited the museums leading in this space, I observed a move away from projects focused on global audiences, and a move towards personalised experiences delivered via smartphones and customised devices available on-site at the museum. While these new experiences were often rich, subtle and playful – and designed to collect information that helped institution learn more about the behaviour and motivations of physical visitors – this shift in focus from global to local seemed to be paired with a reduction in sector-wide, collaborative endeavours. I asked myself at the time if this was a natural consequence of digital leaders' roving curiosity: that the opportunities of collaborative platforms, APIs, metadata sharing and so on had been thoroughly explored, and new ground opened up for exploration. I also quietly questioned whether museum leadership and external funders had abandoned the altruism encouraged by the open web environment, and were now more inclined to support projects where the benefits could be firmly located within the museum's walls.

Today, the ground has shifted again. As Adriel Luis observes in his conversation with Sarah Brin, over this intervening period "museum conferences

everywhere have gravitated towards the theme of social change."[2] The sector is asking itself hard questions about impact, social change and social justice. Within this questioning, there is a growing awareness that in their efforts to decolonise themselves – to cast off their colonialist and imperialist origins – museums may fall into perpetuating a form of neo-colonialism, often in the attempt to fulfil the vision of universal knowledge they were founded upon.

Sarah Kenderdine touches on the tension between the value museums place on access to heritage and knowledge and the growing understanding of the prejudice of this attitude in her conversation with Merete Sanderhoff. Talking about the creation of high-resolution digital facsimiles of heritage objects, she notes:

> Critics look at this as a kind of massive cultural appropriation or neo-colonialism that the digital has unleashed in the documentation of other cultures, under a banner of heritage at risk. It's an extraordinary moment. It's not like iconoclasm is new, but now it's in the public domain. We are able to create phenomenal amounts of digital data, but it does come with this overtone of neo-colonialism.[3]

The same point is raised in a response signed by over 100 scholars and practitioners in intellectual property law and material and digital cultural heritage to the 2018 Sarr-Savoy Report, which recommended to the French government the restitution of African material culture from French museums to colonised countries. The response challenges the report's recommendation that all items identified for return should be systematically digitised and made available online, arguing that "the report's recommendations, if followed, risk placing the French government in a position of returning Africa's Material Cultural Heritage while retaining control over the generation, presentation, and stewardship of Africa's digital cultural heritage for decades to come" (Pavis and Wallace 2019).

As we look to the future then, I recommend one particular chapter in this book to all readers. The conversation between LaToya Devezin and Barbara Makuati-Afitu shows, in applied practice, ways of working that could and should form the culture of museums of the future. LaToya, in her discussion of working with African American and other communities, describes a post-custodial model of museum and archival practice, where emphasis is placed not on the physical housing of the object, but the preservation of a community's culture and stories – of the institution being of service. Barbara, when asked what is required for institutions to respect and protect the stories and knowledge communities chose to share with them, replies, "It's someone fully understanding culturally and spiritually the sacredness of that knowledge that isn't ours, that isn't mine, and wanting to know how we can help – using different platforms – to ensure

2 Adriel Luis, in Conversation 4
3 Sarah Kenderdine, in Conversation 5.

its safety." And when asked at the conclusion of the conversation what museums
may look like in 20 years' time if they follow these practices, LaToya concludes:

> We're going to have a more multidimensional viewpoint of history, and I
> think we can really affect social change. We'll have more diversity within
> our staffs, and a more enriching experience as a whole. I feel like our space
> will be more transformative over time, and that we can grow with each
> other, and maybe it will give us the space to have some of those difficult
> conversations to be able to foster change. If we all could participate in con-
> versations like the conversation that we're having now, I can see it being
> such a beautiful and wonderful process.[4]

The beauty of this book is being invited into these conversations in this moment.
On behalf of all its readers in the future, I give my thanks to the generosity of all
those who gave of their time and knowledge to create it for us.

References

Carvin, Andy. 2005. "Tim Berners-Lee: Weaving a Semantic Web." A Sense of Place
    Network. 2005. http://web.archive.org/web/20100606132725/**http://www.cbpp.**
    uaa.alaska.edu/afef/weaving%20the%20web-tim_bernerslee.htm
Johnston, Courtney. 2016. "Final Report: Visitor Experience in American Art Muse-
    ums." Best of 3. 2016. http://web.archive.org/web/20181001033400/**http://best-**
    of-3.blogspot.com/2016/06/visitor-experience-american-art-museums23.
    html
Madrigal, Alexis C. 2017. "The Weird Thing About Today's Internet." *The Atlantic.* 2017.
    http://web.archive.org/web/20170520025036/**https://www.theatlantic.com/**
    technology/archive/2017/05/a-very-brief-history-of-the-last-10-years-in-
    technology/526767/
O'Reilly, Tim. 2005. "What Is Web 2.0? Design Patterns and Business Models for the
    Next Generation of Software." OReilly.Com. http://web.archive.org/web/2010050
    8031108/**http://oreilly.com/pub/a/web2/archive/what-is-web-20.html**
Pavis, Mathilde, and Andrea Wallace. 2019. "Response to the 2018 Sarr-Savoy Report:
    Statement on Intellectual Property Rights and Open Access Relevant to the Digitiza-
    tion and Restitution of African Cultural Heritage and Associated Materials," March.
    http://web.archive.org/web/20190610002217/**https://zenodo.org/record/**
    2620597
Rodney, Seph. 2015. "How Museum Visitors Became Consumers." CultureCom. 2015.
    https://web.archive.org/web/20190712193442/**https://culture-communication.**
    fr/en/how-museum-visitors-became-consumers/.
———. 2016. "The Evolution of the Museum Visit, from Privilege to Personalized Expe-
    rience." Hyperallergic. 2016. http://web.archive.org/web/20180629102144/**https://**
    hyperallergic.com/267096/the-evolution-of-the-museum-visit-from-
    privilege-to-personalized-experience/

4 LaToya Devezin, in Conversation 2.

INTRODUCTION

Within the museum technology space, conferences, along with blogs, social media and more formal publications, have played a critical role in the development of a discourse on digital[1] and its meaning for cultural institutions. Indeed, we have been attending, presenting at, moderating, programming and keynoting conferences, symposia and workshops for over 15 years.[2] We continue to do this work, finding great value in it. Most of these events explore contemporary practice with a focus on the intersection of the GLAM[3] sector (galleries, libraries, archives and museums), culture and technology. During these events, in our experience, the best moments often occur in the margins and outside the formal sessions – in hallways, conference hotel lobbies, cafes and bars when a small group forms to actively debate crucial issues that impact our sector. In these dialogues we've encountered many transformative ideas. Many of these discussions,

1 In this book the authors and participants use the term digital in a broad sense to encompass digitally mediated technologies, platforms and services (apps, websites, smartphones, computer networks, public and hosted platforms, collection management systems, etc.), digitally informed practices (including iterative, user tested, speculative and experimental ways of working) and the contemporary, networked, technologically mediated world of the Anthropocene where digital technologies and practices shape society through their role in, and impact on, social, political, economic, cultural and other systems.
2 These conferences include: Museum Computer Network (MCN), Museums and the Web, the American Alliance of Museums conference, National Digital Forum in New Zealand, SXSW in Austin, Museums & Galleries Australia conference, Museums Computer Group in the U.K., MuseumNext, Communicating the Arts, REMIX, AIGA and many more. Suse was Co-Chair of MCN 2015-16, and on the Program Committee of MCN and the Museums Computer Group for several years.
3 We are focused on museum making in this text, however, we have found inspiration in the wider GLAM/GLAMAZONS sector (GLAMAZONS is galleries, libraries, archives, museums, aquariums, zoos, observatories and nature spaces). We have edited the book to create inroads and pathways for those working in, with, or studying institutions other than museums.

along with more formal moments in panels, workshops or break-out sessions, have opened up our thinking, created a new sense of what's possible, encouraged us to try different things, or (most commonly) warned us off strategies or paths that are filled with pitfalls, saving us valuable time and resources. The honest reflections of a peer can provide a solution to a seemingly intractable internal problem, a transformative story of failure – which are rarely presented on stage – helps you avoid making the same mistake, or a single comment encourages you to try something you'd previously thought impossible or unproductive.

From these exciting generative moments (listening, asking questions or offering ideas) a pattern emerged. The best of these discussions are with groups of two to four people that include experienced domain experts from different backgrounds and different museological contexts, people who employ contrasting approaches or strategies to address shared problems. The very best of these uncover new knowledge in the spaces in-between. Daryl Karp notes, "a lot of the exciting ideas come out of informal conversations where there is no real agenda."[4] It was conversations such as these that ignited the initial spark for this book.

These experiences encouraged us to develop a conversational model for this publication. Consequently, and intentionally, the heart of this book is a series of twelve facilitated conversations between paired thinkers, makers, doers and leaders which explore key issues that contextualise the digital present and inform the post-digital future of museums. Grappling with important, contemporary questions through conversation – rather than in a formal paper or essay – generates different types of insights, in a manner that is rare in our sector. Of course, interviews of this nature of inherently impartial. It is worth acknowledging that we did not seek to minimise or prevent bias in our questions, nor did we verify the participants' statements with their colleagues, or users of the projects they cite, to confirm their accounts. Rather than a summary of recent and successful projects, the participants speak from positions of personal and lived experience in order to provide the reader with the context and strategy that underpins their practice more broadly. It's crucial to the success of this book that the ideas are legible and free of museum or technology jargon, because, as Andrew McIntyre says, "you can't change the world unless you bring people with you."[5]

This book takes a non-traditional approach to research. Rather than seeking to follow a single line of questioning, the book's diverse cohort explore a range of distinct, yet interconnected, topics. These topics were developed by the authors reflecting the museum trends we had identified, and include critical input from colleagues, peers and the participants themselves. Each conversation, recorded in real-time, focuses on a specific set of concerns, with room to consider relevant ideas, practical experiences and specific projects. Taken together they provide context for a future which, according to Seb Chan, will be populated by those for whom "digital (and technology) isn't special, it just is what is."[6]

4 Conversation 9: Brad Dunn + Daryl Karp.
5 Conversation 8: Kate Livingston + Andrew McIntyre.
6 Conversation 7: Shelley Bernstein + Seb Chan.

The conversation with the writer and academic **Seph Rodney** (Jamaica/U.S.) and established museum technology leader **Robert J. Stein** (U.S.) begins with a discussion on personalisation of the museum visit and museum content. That conversation broadens out to explore and problematise some different modes or models of museum making from the recent past, present and possible future. Seph and Robert were brought together as they have, respectively, extensive published research and high-profile public-facing project experience regarding the customisation and personalisation of the museum visitor experience.

In 2016 Keir heard the community archivist **LaToya Devezin** (U.S.) in conversation at the Cultural Heritage & Social Change Summit in New Orleans, U.S. talking about her holistic, community-centred approach to digital and non-digital archiving within communities undergoing change or stress. In 2017 the community engagement facilitator **Barbara Makuati-Afitu** (New Zealand) spoke at the National Digital Forum in Wellington, New Zealand about the Pacific Collections Access Project and the community-centred approach *Tāmaki Paenga Hira Auckland War Memorial Museum* was taking with 13 Moana Pacific Island nations and groupings. By bringing LaToya and Barbara together in conversation we were able to investigate the parallels and distinctions between their respective internal and external strategies for archiving, enriching and opening up cultural collections, artifacts and their stories.

Hong Kong's *M+* and *Asia Art Archive* (AAA) are very different organisations in terms of scale, collection, audience, remit and history. However, they are both relatively young multilingual and multi-modal organisations situated in a highly mediated society. We have been following both organisations attentively for several years, the AAA in particular is frequently referenced by peers working in collections and registration departments, or in archives and libraries. **Lara Day** (Hong Kong) and **David Smith** (New Zealand/Hong Kong) offer a unique perspective on how to balance local relevance with a continental remit, in ways that were (at the time of the recording) expressed primarily online.

Both **Sarah Brin** (U.S./Denmark) and **Adriel Luis** (U.S.) joined the museum world via circuitous paths and work in progressive artist-, visitor- and community-centred ways. Sarah's experience working with gaming and technology-focused pop-ups and ephemeral curatorial projects in the museum and commercial sectors led to her participation in the Horizon 2020-funded GIFT project that explores hybrid forms of virtual museum experiences as a researcher and development manager at *IT-Universitetet i København* in Denmark. Adriel, a self-taught musician, poet, curator, coder and visual artist, developed the innovative *Culture Lab* series with his colleagues at the *Smithsonian Asian Pacific American Center*, a museum without a building. We paired them to discuss agency, expertise, play, trust and institutional change, both inside the traditional museum context and beyond, contrasting American, European and Asian perspectives where possible.

Both **Sarah Kenderdine** (Australia/Switzerland) and **Merete Sanderhoff** (Denmark) are based in Europe working on and within museums, as well as playing leadership roles in pan-institutional organisations such as Europeana and

the Australasian Association for Digital Humanities. At the time of this conversation, they both held unique job titles; Sarah as the Professor of Digital Museology at *École Polytechnique Fédérale de Lausanne* in Switzerland and Merete as the Curator of Digital Museum Practice at the *National Gallery of Denmark*. The stories behind these job titles begins a conversation that covers concepts such as openness, data sovereignty, ephemeral culture, participation, empowerment and risk – and the technologies that are used to facilitate or express these concepts such as data APIs, data translation, virtualisation, visualisation, simulation and immersion.

Loic Tallon (U.K./U.S.) has been a central figure in the museum technology space since he began organising an online conference series on mobile technology in museums in 2009. He later joined the *Metropolitan Museum of Art* in New York as a mobile manager and rose through the ranks to become their Chief Digital Officer. While at the Met, Loic published a series of articles on the Met's digital structure and future. At about the same time, **Kati Price** (U.K.) of the *Victoria & Albert Museum* in London published and presented a fascinating survey on how museums resource, fund, and structure their digital work and their digital departments. Producing and sharing this sector analysis and insight built on Kati's long track record of publishing the ideas and practices behind the V&A's own digital initiatives. Kati and Loic's discussion explores digital practice and team structure at scale based on their experiences working with large and diverse collections at two of the most visited and photographed museums in the world.

Shelley Bernstein (U.S.) and **Seb Chan** (Australia) have been active in the museum technology space for more than 10 years, rising to senior positions within their respective institutions, and were both in Chief Experience Officer roles when their conversation was recorded. Shelley and Seb are visible members of this community through their publishing and speaking engagements, and for the highly publicised digital projects they've led. In late 2016 they engaged in an asynchronous discussion by commenting on each other's posts on the online writing platform Medium, having appeared at conferences together in the past. This short comment thread, with its open and generous back and forth, suggested a real-time conversation would enable a rich and nuanced discussion. This wide-ranging chapter considers data, privacy, relevance, resilience, collaboration, brand and cultivating new audiences, and compares custom, consortial and third-party digital platforms.

Kate Livingston (U.S.) and **Andrew McIntyre** (U.K.) both founded and continue to lead businesses that focus on visitor experience evaluation and insights. We intentionally began the series with a deep discussion that centred our thinking on the needs and motivations of current and potential museum audiences. Kate and Andrew were selected as they were two of the most thoughtful and nuanced practitioners we'd encountered working in this space. Keir, during his time at *SFMOMA*, worked with both Kate and Andrew directly evaluating digital projects. This familiarity made possible a discussion that includes a mix of broad theoretical and detailed methodological moments.

We brought **Brad Dunn** (U.S.) and **Daryl Karp** (Australia) together to discuss how cultural organisations can present as media companies, employing broadcasting or journalistic principles and strategies, and how these practices can affect how people experience a museum visit, how they engage in person and online, and the trust they place in museum content and institutions themselves. Brad and Daryl bring their prior experience working in media to their museum work in different ways. Brad, as Web and Digital Engagement Director for the *Field Museum* in Chicago, brings his media, theatre and game production experience, and a journalism practice to the *Field*. Daryl, as Director of the *Museum of Australian Democracy* in Canberra, employs large- and small-scale media content production models at the museum, based on her experience in leadership roles within the Australian Broadcasting Corporation and Film Australia.

The 2017 iteration of the long-running "Culture Track" report from LaPlaca Cohen and the 2018 "Culture is Digital" report from U.K.'s Department for Digital, Culture, Media & Sport are two important data points in the longitudinal view of cultural definitions, access, visitor engagement, and analytics for the cultural sector in the U.S. and the U.K. We spoke to LaPlaca Cohen co-founder **Arthur Cohen** (U.S.), a leading strategic thinker and consultant in the cultural sector, especially for museums and galleries, and **Tonya Nelson** (U.S./U.K.), who was Head of Museums and Collections at University College London, and one of the authors of the "Culture is Digital" report, about shifting definitions of culture, changing audience expectations and motivations, points of access and inclusion, and new models of funding and philanthropy in the museum sector.

Tony Butler (U.K.), Director of Derby Museums Trust which includes the *Museum of Making* (opening 2020) in Derby, U.K. and **Lori Fogarty** (U.S.), Director and CEO of the *Oakland Museum of California* (OMCA), in Oakland, U.S. are directors of two hyper-local organisations that act as exemplars of progressive, audience-centred museum practice. Both Tony and Lori, and the organisations they led, have used audience evaluation and understanding to inform their exhibition and public programs, as well as the supporting organisational structures. In different ways, they both seek to engage all audiences from those who are simply visiting the building to those who participate in physical and conceptual co-production of museum content and experiences. They, and their respective teams, have placed social impact, wellness, trust and genuine relationship building with community at the heart of their very contemporary organisations.

Daniel Glaser (U.K.) is a self-described "brain person" with a diverse experience working at the intersection of science and arts, including as the founding director of *Science Gallery London* at *King's College*. Well known as a neuroscientist for his column in *The Guardian* newspaper, Daniel was the world's first scientist-in-residence at an arts institution at the *Institute of Contemporary Arts* in London, U.K., in 2002. **Takashi Kudo** (Japan) is an artist, designer and communications director with teamLab in Tokyo, Japan. teamLab are an artist collective who create large scale immersive installations and exhibitions that probe technology,

nature, and human experience. We brought Daniel and Takashi together to examine participation, play, inclusion, authorship, technology, and social impact at the intersection of science and art in museums.

Selecting participants in order to present a diverse range of experiences, opinions, institutional knowledge and local contexts is critical to the efficacy, structure and broad relevance of this publication. The interview cohort is half female and half male, located across Europe, the United States, Australia, New Zealand, Hong Kong and Japan. The majority of the cohort are museum insiders, with many in leadership positions including director, CEO, chief digital officer, chief experience officer, web & digital engagement director, head of collections & digital experience, head of digital media, curator of digital & emerging practice, and curator of digital museum practice, with others in mid-level roles, such as community archivist, community engagement facilitator and manager digital programme. Approximately a third of the participants are not museum professionals, instead working with or researching museums as an artist, designer, writer, evaluator, strategic consultant or university educator.

Takashi Kudo uses the metaphor of territories when talking about *teamLab's* creative process, "if we try to solve something, it's from within our territories."[7] Each of the participants approach the questions and topics in their conversation from their territory. Some are not digital specialists, they do not have "digital," "technology" or "media" in their job titles. They are, however, engaged in understanding how digital is changing museum work and have experienced digital's effect on their organisation and their working practices.

On a practical level, we solicited and confirmed participation in-person or over the phone months before the recordings. A number of people agreed to take part that were not included in the book after we completed our research and made the final pairings. Once the pairings were confirmed, further research was undertaken, topics were selected, questions and prompts were written and the recordings were scheduled. Lastly, we provided participants with a list of high-level topics for discussion, but not the questions themselves, a week before the recording. This ensured the ideas were front-of-mind, but their answers were not rehearsed. The conversations themselves lasted for between 90 and 120 minutes.

Transcripts of the conversations went through an extensive editing process, wherein Suse tackled several initial rounds of edits, with each interview edited down significantly. Edits were made for readability and to select for ideas and themes that connect across the publication, with a mind to ensuring that no important context or content was lost, and that the unique voice of the discussant was not overridden. Following this initial editing process, Keir would review the written document, and reference the taped discussion when useful, to ensure that the edited discussion still reflected the tenor of the live conversation. All participants were then sent both an edited and unedited copy for review to ensure

---

7 Takashi Kudo, in Conversation 12.

their edited transcript was accurate and legible, and reflected their views and experiences. Most of the transcripts include a number of short breakout texts in the footnotes that provide background information on projects or processes the participants reference. This detailed preparation, recording and editing process enables the conversations to go beyond the expected and into new territories, offering new knowledge, new connections, and rich, thoughtful context for the digital world that museums increasingly inhabit.

This publication does not seek to be all-inclusive, nor can it be. As with any potential grouping, there are gaps. We cannot chronicle all voices or expertise; however, we can offer a diverse, fascinating, interconnected set of ideas, examples, and memorable moments of creative and productive tension. Nor are we trying to cover all topics of importance to museums today. Instead, we explore specific territories of interest for deeper insight. Although we sought to include voices from many different museum contexts, we primarily spoke to those who speak English as their first language, and did not explicitly connect with people from Africa, South America or the Middle East. This, in part, was due to the specific topics we were interested in covering, and in part was due to our own greater familiarity with the sectors in the English-speaking world. We must also acknowledge our own biases; both authors are white, cisgender Australians who lived and worked in the United States for the majority of this project. For each conversation, Keir wrote the questions and facilitated the discussion over the phone or via video conference. Suse reviewed the questions, with support from Rossana Cantu and John Stack who reviewed questions when they overlapped with their expertise, however all conversational cul de sacs are of Keir's making.

All the interviews were recorded over a 12-month period from mid-2017 to mid-2018, frequently across three time zones and occasionally in the middle of night San Francisco time. The essays in the book, including the introduction and the foreword, were all written in 2019, informed by the conversations herein, but also shaped by the broad technological and cultural shifts happening within and beyond the museum sector. It is therefore important to understand this publication as providing both a snapshot in time, and a timeless, reusable, reference for digital museum practice. Where possible we have tried to steer these conversations away from the trending digital gadgets of the day, augmented reality (AR), virtual reality (VR) and artificial intelligence (AI) being foremost among those in 2017 and 2018, as these will inevitably fade as newer, shiner distractions appear. We look, instead, at how digital impacts all museum work in organisations that are, as Lori Fogarty says, "trying to move away from permanent collection galleries or permanent exhibits to building and prototyping and iterating."[8]

This book does not provide a list of recently completed digital case studies, this material can be found in the conferences and their proceedings referenced earlier in this chapter. We have not asked participants to write an essay, instead

8 Lori Fogarty, in Conversation 11.

we have asked them to reflect, in an effort to essentialise and synthesise, not simply to document. In her conversation with Brad Dunn, Daryl Karp says "digital for me is a language. It is not just a technology."[9] This book provides texture and context for the language of digital as it evolves around and within museums.

Perhaps the most consistent thread that ties each of these discussions together is a focus on relationships – relationships with diverse communities, relationships with "big tech," collaborative relationships with other institutions, internal stakeholder and institutional relationships, relationships between the different conversations and the practitioners. To make these relationships more legible we have included a simple visualisation of the topics explored in each conversation at the beginning of each chapter. These 12 topic maps illustrate the relationships between concepts and ideas present in the book. These visualisations should help you navigate the content of the discussions and read for overlap, enabling you to better explore the commonalities and differences found herein. At the end of each chapter there is a short text that connects the some of the key ideas from that conversation to the rest of the book, equal parts summary and hypertext.

Necessarily, the conversations are framed by the temporal, locative and institutional contexts all three participants inhabited at that time. Keir no longer leads the digital department at the San Francisco Museum of Modern Art, which he did during the development of this project and throughout all the recordings. Many other participants have also changed roles since they took part in the project. As such, each chapter begins with the date of the interview and the roles the two participants held when the conversation was recorded, prefaced by a short introduction that provides framing context for the edited transcript that follows.

In the book's foundational essay, Suse draws upon cultural critic and futurist Ziauddin Sardar's theories of "postnormal times" to frame a set of provocations on the digital future of museums that provide a societal, technological and very human context for the 12 conversational chapters that follow.

We conclude by asking, "where do we go from here?" Taking the book's provocations and conversations as both context and a platform for future exploration, we present a set of possible futures and complex questions that are made more intelligible by ideas presented herein and through the work happening in museums around the world that these ideas represent.

In the months after recording and editing these conversations, it became clear that this project has changed the way we think and work. We have a more nuanced, intersectional and comprehensive view of museum practice, and, more specifically, how technology's ever-increasing rate of change is impacting society, our relationships, who and how we trust, how we create, consume and even think, and, in these pages, how it is impacting the museum sector. Along the way we have let go of many of our own preconceived beliefs and embraced new ideas, strategies and tactics.

---

9 Daryl Karp, in Conversation 9.

We encourage you to explore the book, read the essays, take in individual chapters or binge on the whole thing. Search for and make your own links and synthesis between the ideas. There are many connections that can be made, and while we have done some of the work to draw ideas together, there is more to be done to understand and interpret these discussions. The conversations can be read in any order or studied alone. However, when taken together they offer a rich, nuanced and – at times – contradictory view of the digital future of museums. Thanks for reading, and we look forward to hearing how you'll help shape the future of museums!

<div align="right">

Professor Keir Winesmith

Dr Suse Anderson

</div>

The Digital Future of Museums: Conversations and Provocations argues that museums today can neither ignore the importance of digital technologies when engaging their communities, nor fail to address the broader social, economic and cultural changes that shape their digital offerings.

Through moderated conversations with respected and influential museum practitioners, thinkers and experts in related fields, this book explores the role of digital technology in contemporary museum practice within Europe, the U.S., Australasia and Asia. It offers provocations and reflections about effective practice that will help prepare today's museums for tomorrow, culminating in a set of competing possible visions for the future of the museum sector.

The Digital Future of Museums is essential reading for museum studies students and those who teach or write about the museum sector. It will also be of interest to those who work in, for, and with museums, as well as practitioners working in galleries, archives and libraries.

Keir Winesmith has been working at the intersection of technology, culture and place for the last 15 years. In 2018 he was featured in *Fast Company*'s "100 Most Creative People in Business" for this work. The former director of digital departments at *San Francisco Museum of Modern Art* and *Museum of Contemporary Art Australia*, he is currently CTO of *Old Ways, New* and Professor at UNSW Art & Design.

Suse Anderson is Assistant Professor, Museum Studies at The George Washington University, and co-producer and co-host of *Museopunks* – the podcast for the progressive museum. A former President of MCN (Museum Computer Network), Anderson teaches courses related to museums and technology, ethics and visitor experience. She holds a PhD from The University of Newcastle, Australia.

MUSEUM AND HERITAGE STUDIES

Front cover image by Keir Winesmith, Amira Hankin, Marc Schroeder, Eric Rodenbeck and Stamen Design.