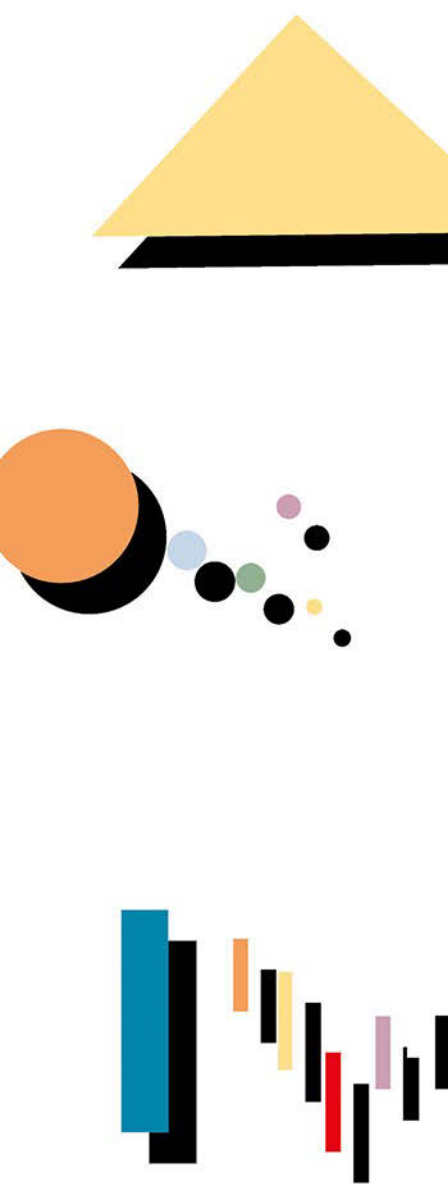




HYBRID ART SPACE

Relational Dynamics of Art,
Space, and Digital Visibility

Ludovica Tomarchio

[transcript] UrbanStudies



Ludovica Tomarchio

Hybrid Art Space

Urban Studies

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Ludovica Tomarchio

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Tomarchio, L. (2021). *Hybrid Art Spaces: Exploring the Relationship between Social Media and Art Venues in Singapore*. Singapore: Singapore University of Technology and Design.

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The previously published content has been revised, expanded, and recontextualized within the broader conceptual framework developed in this book. All figures and reproduced or adapted from these publications were originally published under CC BY 4.0, and proper attribution to the original publications is provided.

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Glossary

- ✚ Cultural Metrics: Indicators derived from digital data (e.g., likes, shares, sentiment, location metadata) are used to assess the performance of cultural spaces. In this book, they include planning metrics, emergence metrics, and visibility metrics obtained from social media.
- ✚ Cultural Analytics: A methodological framework developed by Lev Manovich combines computational techniques, large-scale data analysis, and visualization to examine cultural phenomena. In the context of hybrid art spaces, cultural analytics is used to analyze social media images, visual trends, and patterns of cultural consumption, transforming large visual and textual datasets into spatial and conceptual insights.
- ✚ Hybrid Art Spaces: Environments where architectural settings, curatorial practices, and digital platforms converge. These spaces are physically navigated, yet mediated and amplified through social media, reshaping how art venues are used, experienced, and circulated.
- ✚ Hybrid Space: Following de Souza e Silva (2006), hybrid space refers to mobile, connected spatial conditions where digital and physical layers overlap.

- ✚ Instagrammability: The quality of a space or installation that encourages visitors to photograph and share it on social media. It increasingly shapes the design of cultural spaces as designers anticipate platform visibility as part of the spatial experience.
- ✚ Locative Media Art: Creative practices that use location-based technologies (e.g. GPS, Wi-Fi) to layer digital content onto physical environments.
- ✚ Mobile Territories: Digitally mediated zones shaped by personalized filters, algorithmic pre-selections, and affective navigation. Mobile territories are less about rigid boundaries and more about constructed pathways through space, shaped by social and technological expectations.
- ✚ Parochial Spaces: Defined by Lyn Lofland as semi-public environments shaped by shared affinities rather than formal membership. Hybrid art spaces often behave like parochial spaces: accessible but filtered, communal yet algorithmically stratified.
- ✚ Platform Visibility: The principle by which places, artworks, and cultural content are made visible through algorithmic systems. Visibility is neither neutral nor automatic — it embeds hidden priorities, commercial logics, and economies of attention.
- ✚ Self-Organising Maps (SOMs): Machine learning tools for clustering and visualising high-dimensional data. Used here to cluster visual content (e.g., Instagram images) to reveal typologies and spatial patterns in art venues.

✚ Social Media Art: Art designed primarily for social media platforms to engage audiences not just through content but through participation and interaction, as theorized by Mininno and Mirti.

✚ Spatial Figures: Analytical constructs (Löw & Knoblauch) that describe the logic of how social processes produce space. In hybrid art spaces, digital platforms reorient spatial figures: territory and place increasingly intersect with networked connections.

1. Introduction

In June 2017, a young visitor stepped into the National Gallery Singapore to see Yayoi Kusama: *Life is the Heart of a Rainbow*. She first wandered through rooms filled with Kusama's dotted canvases, fields of color punctuated by obsessive repetitions, where every brushstroke seemed to vibrate between control and infinity. The iconic dots appeared not just on paintings but across entire surfaces, turning walls and sculptures into pulsating environments. Visitors moved slowly, pausing to photograph the works, framing themselves against the backdrops of red, yellow, and black constellations. Before leaving, she raised her phone, snapped a photo, and uploaded it to Instagram with the hashtag of the exhibition. Within minutes, her image joined thousands of others: dotted canvases, mirrored lights, playful portraits against Kusama's sculptures. The exhibition was not contained within the museum, it pulsed across digital networks, repeating, mutating, and amplifying.

The exhibition Yayoi Kusama: *Life is the Heart of a Rainbow* became one of Singapore's most visited shows that year, not only for the paintings, sculptures, and immersive installations it presented, but for how it extended far beyond the museum walls. Kusama's mirrored rooms, with their carefully orchestrated spectacle, became stages for self-portraits and performances of identity. Visitors queued for hours to enter, aware that part of the experience was not just seeing the artwork, but sharing it, turning a minute of immersion into an image that could travel infinitely across platforms. Hashtags multiplied, photos were repeated, and the exhibition itself became a cultural event, just as much on social media as in the galleries.

The Kusama exhibition in Singapore revealed something fundamental about today's cultural spaces: their life does not unfold only in galleries, but also in the feeds, hashtags, and stories that surround them. What if the social practices of a cultural space were shaped not only by its architecture or exhibitions, but also by the patterns of likes, tags, and shares that surround it? What if the true stage of a museum extended as far into the Instagram feed as it did into the gallery hall?

In today's cities, cultural spaces are no longer self-contained. Their presence is often transformed by the digital traces people leave as they interact with them. Social media has evolved beyond being a mere marketing tool: it is now a transformative force, an integral part of the very infrastructure through which art spaces exist.

This book explores the world of Hybrid Art Spaces: venues where physical and digital dimensions are inextricably entwined. In these spaces, the visitor's role is not limited to "consuming" culture; they actively co-produce its visibility, significance, and reach. An immersive installation or a historic façade becomes a stage for identity performance, algorithmic circulation, and networked publics.

The research unfolds in Singapore, a city where state-led cultural planning meets rapid digitalization. Singapore provides a compelling testing ground for the study of hybrid art spaces, as its museums and cultural districts are designed with precision; yet, bottom-up practices of sharing, remixing, and viral amplification often shape their media presence.

1.1 Research questions

At the heart of this book lies a single hypothesis:

Hybrid art spaces are co-constituted by material and digital practices.

Their spatial logics can be analyzed, demonstrated, and even strategically planned by integrating social media analysis into curatorial work and cultural spatial planning.

From this hypothesis, some guiding questions emerge:

- + **Conceptual Foundations:** How can hybrid art spaces be defined and theorized as environments in which daily spatial practices, architectural form, curatorial practice, and platform mediation converge to produce new spatial conditions?
- + **Platform Mediation:** How do hybrid art spaces become visible through platform logics? Which spatial, curatorial, and experiential principles make certain places more likely to be amplified, circulated, and recognized within algorithmic systems of visibility?
- + **Spatial Logics:** What spatial logics structure hybrid art spaces?
- + **Intensification of Hybridity:** Under what spatial, institutional, and experiential conditions does hybridity reinforce itself, producing intensified nodes of cultural attention and participation?
- + **Methodological Framework:** How can hybrid art spaces be studied empirically?

By addressing these questions, the book seeks to bridge the two worlds that are often kept apart. On the one hand, cultural planners and curators still rely primarily on in-house evaluations, visitor counts, or anecdotal feedback. On the other hand, social media data are typically handled by marketing departments or external consultants, who are often disconnected from the design and governance of cultural infrastructures. This work suggests that these domains must be integrated: the digital traces of art spaces are not ancillary, but constitutive.

The notion of hybrid space, a key concept in this book, has long been used to describe environments shaped by mobile media and location-based technologies. Here, I extend it into the cultural field. Hybrid art spaces function through a constant negotiation between curatorial strategies, visitor practices, and platform rules.

To analyze these spaces, I combine methods from urban studies, spatial theory, and digital media research with computational tools, including image classification, clustering, and mapping.

The core analyses presented in this book were conducted during my PhD research in Singapore, which I completed in 2020. Since then, my subsequent work in Germany, particularly within the field of social sciences, has allowed me to refine and expand the conceptual framework. In this book, I revisit those earlier results through new theoretical lenses and further develop the conceptual apparatus that underpins them.

This book is written for urban and cultural planners, curators and exhibition designers, architects, policymakers, and scholars interested in the evolving intersection of art, media, and urban life. At its core, it asks readers to recognize that social media is not outside culture but inside it, shaping what is seen, valued, and remembered.

1.2 Social media: properties and use

Social media are digital platforms—websites and mobile applications—through which users create and sustain online communities. They provide channels to share information, images, videos, personal messages, and cultural references. Their impact has grown in step with the widespread adoption of smartphones, which enable users to capture and post content instantaneously, from almost any location.

In 2025, more than 5.24 billion people worldwide will be active on social media, accounting for approximately 63.9% of the

global population (Kemp 2025). Platforms differ significantly in their affordances and modes of interaction: some focus on visual content (Instagram, TikTok, Snapchat), others on conversation and text (X / formerly Twitter, Reddit), still others emphasize messaging, community-oriented, and organizational uses (Facebook, WhatsApp, WeChat). Despite their differences, all function as infrastructures of mediation, filtering what is seen, amplifying certain cultural practices, and archiving both ephemeral moments and longstanding traditions.

This book focuses on two platforms, Instagram and Twitter (now in 2025 X, but still Twitter at the time this research was conducted), due to their relevance in the cultural field. Instagram privileges visual communication. It enables users to capture images or videos, enrich them with text captions and geotags, and share them with their followers. Its rapid growth since 2010 is inseparable from the medium of photography, which remains a key driver of social engagement. Research has shown that users are particularly motivated by two triggers: visually striking objects or spaces, and memorable events (Bianchini et al. 2016). On Instagram, however, these triggers are subject to platform effects: styles become standardized, aesthetics converge (Manovic 2017), and users often curate their profiles in aspirational ways, performing identities as much as documenting realities (Schwartz and Halegoua 2015).

Twitter, in contrast, is a text-based platform. It is structured around microblogging, with short messages now limited to 280 characters (as of 2020). Tweets often include links, images, or geolocation data, and can be shared through retweets or comments. While Twitter began as a peer-to-peer communication tool in 2006, it has undergone significant evolution. At the time of writing, it is known as X and is owned by entrepreneur Elon Musk. Since collecting empirical material while it was called Twitter, I have continued to refer to it with its original name. Twitter's brevity and virality tend to encourage polarisation.

In this book, I will argue why social media must be treated as more than an auxiliary layer of promotion or communication. They shape how cultural spaces are perceived, remembered, and valued, thereby influencing the way space is produced; they redistribute visibility across institutions and districts; and they inform curatorial and design choices. In other words, they are not external to cultural space, they are one of its infrastructures. It is against this backdrop that I develop the concept of Hybrid Art Space, constituted by material objects like the architecture, by the programming and curatorial strategies, but also by social media rules, user practices, and algorithmic circulation.

1.3 Structure of the book

The book is organized into three main parts:

Concepts and Theory (Chapters 2–4)

I begin by exploring the intersections of social media and art (Chapter 2), then move to the relationship between social media and space, introducing the notion of Hybrid Space (Chapter 3). Chapter 4 develops the concept of Hybrid Art Spaces and outlines their underlying logic, which is further illustrated and expanded upon in the subsequent chapters.

Methods and Empirical Results (Chapters 5–7)

Following a brief overview of the methodological approach and case studies, the empirical focus shifts to Singapore. This section tests and refines the theoretical framework through empirical material. Here, the majority of the hypotheses introduced earlier are substantiated, extended, and critically examined.

The visualizations and analytical tools developed along the way serve not only as methods of inquiry but also as means of demonstrating how Hybrid Art Spaces operate in practice.

This enables the identification of typologies of hybrid art spaces and a deeper understanding of the dynamics that emerge when digital media practices intersect with physical urban contexts.

Tools, Implications, and Outlook (Chapters 8–9)

In the final section, I return to the tools, presenting them in a practical form for cultural planners and curators who wish to apply the theory and findings of this study. These consist of: (1) an interactive visualization to support curatorial decision-making in exhibition design, and (2) a mapping framework for cultural planners as a form of post-occupancy analysis. The concluding chapter reflects on the study's limitations and considers how its insights might be transferred to other contexts, but also positions this research in the changing media ecology.

This trajectory, spanning from concepts to empirical evidence, tools, and implications, is designed to serve both scholars and practitioners. It invites readers to see social media as a constitutive dimension of cultural production, circulation, and planning.

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2. Art and Social Media

At the 2025 edition of the Transmediale festival in Berlin, choreographer Nina Davies and 2girls1 Campo, in collaboration with *The Inexorable Non-Player Character* (2025), staged a performance that began with a series of oddly mechanical gestures, accompanied by a screen showing TikTok contributions as a backdrop. The dancers moved through space as if caught in a loop, their limbs repeating with a glitchy rhythm, oscillating between fluid motion and abrupt stasis. The sequence was instantly recognizable to anyone familiar with TikTok's #NPC trend: a viral format in which creators parodied the jerky, repetitive behaviors of Non-Player Characters in video games. On the platform, these imitations circulated as short clips and collages, layered with AI-generated fragments and ironic captions. On stage, Davies wove them into a dance choreography, juxtaposed with projected TikTok videos in which the same gestures multiplied through endless remixing.

What emerged was not a simple transfer from screen to stage, but a recursive exchange in which the TikTok trend itself operated as a form of co-authored artistic practice, according to Davies, staged in a form of resistance toward automative futures (*The Inexorable Non-Player Character* 2025). Following this logic, the chapter begins by arguing that social media are not merely transmission mechanisms, but environments in which artistic form is shaped, where the logic of trend, remix, and virality becomes a material of practice. We will explore how art is conceived within platforms, how it is disseminated through them, and how both forms influence perception and value. While art history and theory are not the author's main areas of expertise, this chapter is necessary to lay the groundwork for what follows. It sets the stage for the subsequent chapters, which examine how social media reconfigure space (Hybrid Space) and how artistic practices mediated online reconfigure art spaces (Hybrid Art Space).

2.1 Types of Relationship between Art and Social Media

The relationship between art and social media can be situated along a continuum that extends from works conceived within social media to works merely disseminated through it. This distinction is crucial; yet, in practice, most works occupy a position between these poles. Across this spectrum, mechanisms of remix, participation, and circulation emerge that blur the boundaries between production and promotion, as well as between author and audience.

Social media art. In 2010, Xiao argued that social media art can be understood as art in which the web is not only a tool for marketing or distribution but an essential part of the artistic expression itself. According to this view, the work must be adapted to the device or platform, respond specifically to the online space, and involve the audience in some way. The most compelling forms, Xiao suggested, even inspire the crowd to participate in co-creating the work. (Xiao 2010b; 2010c; 2010a). This definition underscores that the specificity of the medium is not accidental but constitutive of the work itself.

In 2016, a year when social media reached new levels of cultural and political influence, with Instagram introducing Stories and live streaming gaining momentum, Alessandro Mininno and Stefano Mirti reiterated this emerging understanding of artistic practice. They argued that works of art should be conceived to exist directly on social media platforms and should be participatory in nature, allowing the audience to be directly involved in the artistic process. (Mininno and Mirti 2016).

An early example of social media art is Man Bartlett's *Tips for Instagrammers Who Want More Likes* (2014), as seen in Fig. 1, in which the artist created an Instagram post featuring a painted canvas listing strategies for online visibility. The recursive gesture highlighted how the symbolic economy of likes had already become integral to the artistic field.



Figure 1. Man Bartlett, “Tips for Instagrammers Who Want More Likes”, Instagram post, 2014. Screenshot of the work as presented on the artist’s website, reproduced here in black and white. Source: Man Bartlett, <http://www.manbartlett.com> (accessed 2017).

TikTok-native practices. With the rise of TikTok, these dynamics have intensified. Artists and creators utilize the platform’s mechanisms, like trends, sounds, and challenges, so that the “work” emerges less as a single-authored piece than as the activation of a participatory chain of re-enactments and remixes.

An example is the *digital exquisite corpse*, where under hashtags such as #ExquisiteCorpse, artists and users contribute sequential fragments to a drawing, collage, or performance, each remixing the previous contribution. In contrast to traditional notions of authorship, these chains foreground a distributed creativity in which the artwork exists only through a cumulative process. During the 2020s intense wave of NFTs, artistic processes also adopted a participatory character, supported by communities on social media platforms like Discord.



Figure 2. “Exquisite Corpse” challenge, Instagram post by @MisterJamesGallagher, 2025. Screenshot from Instagram, reproduced here in black and white (accessed 2025).

Another recurring strategy is the hashtag #DuetThis, where artists upload incomplete works—a sketch, a lettering fragment, a digital painting—and explicitly invite followers to “finish” or reinterpret them. The resulting series of duets creates a polyphonic artwork that undermines the distinction between creator and audience. Similarly, visual reenactment challenges invite the community to redo or reinterpret a concept—such as redrawing a meme, painting a familiar object from multiple perspectives, or collectively iterating an aesthetic motif. Here, the value of the work is generated not by the individual post but by the constellation of responses it triggers across the platform. Other hashtags, such as #NPC (Non-Player Character), circulate widely in the form of political memes that contest political agendas through digital content, often generated by AI.

Since 2021, the proliferation of AI-generated art has further complicated the notion of “native” social media art. Various architectures of generative AI, circulate on platforms such as Instagram and TikTok both as artistic artifacts and as critical interrogations of algorithmic production.

Art is disseminated through social media. A second category concerns works that are diffused through social media but not explicitly conceived for them. In this case, platforms primarily serve as channels for promotion and communication. However, this dissemination is not neutral: it subjects artworks to the logics of metrics, visibility, and engagement that increasingly govern the cultural field, often still leveraging a participatory response. A well-known example is Ai Weiwei, who consistently uses Instagram not only to document his installations and studio practice but also to circulate political messages, behind-the-scenes images, and audience reactions (Weiwei 2025). While his works are not created for the platform, their remediation online amplifies their impact, inviting publics to engage, share, and debate—thus extending their reach into algorithmically governed spaces of reception.

These two categories should not be understood as mutually exclusive but as the extremes of a continuum. Many artistic practices oscillate between them: an artist may rely on social media to promote works conceived for a gallery while simultaneously experimenting, using formats native to the feed. Likewise, museums may stage physical exhibitions accompanied by digital commissions, which are explicitly designed for online dissemination. Recognizing this continuum is essential, as it allows us to move beyond reductive dichotomies between the “digital” and the “physical,” and to understand platforms as creative environments in their own right.

2.2 Collective Authorship

If social media has transformed the circulation of art, it has also profoundly reshaped the modalities of collective authorship. Rather than positioning the artist as a singular creator and the audience as a passive recipient, platforms encourage iterative practices in which participation, remixing, and co-creation become constitutive elements of the work itself.

One strategy is to foreground the dimension of production collectively. In Singapore, for example, the collective soft/WALL/studio used Instagram in 2020, as visible in Fig. 3, to disseminate images that articulated the context of their practice, effectively transforming the platform into a discursive space for collaboration and reflection. By inviting the public into the production of meaning, projects like these anticipated the dialogic and participatory authorship that has since become mainstream on TikTok and Instagram.



Figure 3. soft/WALL/studio, Instagram wall (profile view), 2017. Screenshot from the collective's Instagram account (@softwallstuds), reproduced here in black and white.

The dynamics of production, framing, and reception thus form circular processes: an artist's post becomes material for audience responses, which in turn influence future works, exhibitions, and even the artist's own framing of their practice. What began as isolated instances of co-authorship has evolved into a remix culture, in which the audience not only comments on art but also actively reshapes its form, context, and value.

TikTok has further amplified these dynamics by integrating co-production into its very structure. The *duet* and *stitch* functions enable users to add to an existing video, creating chains of responses that collectively constitute a distributed artwork. In such cases, the artwork exists less as a single-authored product than as a layered assemblage, whose meaning and value emerge through accumulation and variation.

The use of AR filters similarly exemplifies this shift. When artists design filters that can be downloaded and applied by users, each act of adoption multiplies the work and embeds it in new contexts—from selfies to live performances. A telling example is Johanna Jaskowska's viral filter *Beauty3000* (2019–ongoing), which enveloped users' faces in a reflective, liquid-like surface. The filter spread globally on Instagram, not as a static artifact but through countless user performances that re-situated the work in everyday contexts. In this way, the artwork itself was inseparable from the participatory practices that sustained it, foregrounding how digital publics co-produce meaning through acts of appropriation and circulation. These collective practices suggest that art in the age of social media is not only about works and audiences, but also about the processes of co-production and co-authorship that unfold across digital and physical sites.

2.3 Institutions and Platforms Curatorship

If artists have appropriated social media as both a medium and a stage, cultural institutions have undergone a profound transformation as well. Museums, galleries, and archives no longer treat platforms as auxiliary channels of communication but increasingly view them as curatorial environments in their own right.

An early ironic twist on curating within digital platforms was the 2016 exhibition *Unlike*, curated by Thomas Cheneseau. Works originally conceived for social media were re-presented in a gallery setting, translated into physical supports and spatialized displays. Rather than merely documenting online practices, the exhibition highlighted the interplay between digital and physical contexts, constructing a narrative that made explicit how curatorial practices had become entangled with online platforms, and thus with users and algorithmic logics. By bringing what was ordinarily encountered in social media feeds into the physical space of a curated exhibition, *Unlike* exposed the underlying trick of this translation (Cheneseau 2016).

Since then, many museums and galleries have established a permanent presence on social media, treating their accounts as extensions of the institution's curatorial presence. Instagram feeds have become sites where collections are reframed, exhibitions are serialized into micro-narratives, and audiences are invited to engage through likes, comments, and shares.

A notable example is the Museum Barberini in Potsdam (Brandenburg), which has developed a comprehensive digital strategy that integrates social media into its curatorial practices. Beyond maintaining a strong presence on Instagram through reels, educational content, and exhibition highlights, the museum extends its mission via the Barberini App, virtual tours, and an online media library ("Museum Barberini Potsdam" 2025). These tools frame collections and exhibitions not only for on-site visitors but also for distributed publics, making the museum's digital accounts function as parallel curatorial

spaces. Other institutions have embraced platforms even more directly as spaces for experimentation. Since 2020, Tate has utilized TikTok to connect with younger audiences through short-form videos that remix archival material, showcase behind-the-scenes processes, and encourage playful forms of engagement.

The pandemic accelerated this process. With physical spaces closed, institutions turned to platforms as primary venues for mediation. As a result, new professional figures emerged: social media curators, community managers, and content specialists now work alongside traditional staff. Their expertise lies in translating institutional missions into platform-specific grammars: a collection narrated through reels, a research project serialized in TikTok videos, an archival fragment recontextualized as a meme. The institutional voice is no longer confined to catalogs or wall texts; it circulates in fifteen-second clips and ephemeral stories. Recent research has demonstrated that these roles have become pivotal in how institutions manage their visibility and relevance in the digital sphere (Matiash et al. 2025).

This shift points to a broader transformation: curatorship today is not confined to galleries or catalogs, but extends to “collective consumption” and also to the infrastructures of the platforms themselves. Each user can co-curate their own selection on Instagram, TikTok, or Pinterest (Giannini and Bowen 2016). Additionally, the platform co-curates content with AI recommendation systems and engages with its digital audience. Social media accounts, feeds, and hashtags become sites of narrative construction, audience building, and value formation.

2.4 Visitors' Practices between Identity Building and Digital Re-Curation

If cultural institutions have increasingly incorporated digital platforms into their curatorial strategies, audiences have mirrored this shift through their own practices. Today, museum visitors are rarely without smartphones or tablets, which they use to photograph, record, and share their experiences (Budge 2018). This behaviour has become a central feature of the museum visit, to the point that the Victoria and Albert Museum, in England, for instance, moved from displaying signs prohibiting photography to placing social media at the heart of its visitor strategy, encouraging audiences to post with dedicated hashtags. The act of photographing artworks, taking selfies, framing architectural details, or capturing moments of social interaction extends beyond mere documentation.

Such practices integrate museum artifacts, spaces, and experiences into personal identity, simultaneously reconfiguring exhibitions in the realm of social media (Kozinets 2017).

In the case of artworks, photography may follow an aesthetic pursuit, emphasizing harmonious visual properties, or it may engage with the conceptual message of the work. Both forms are incorporated into social media feeds to enhance the self-images of those who post them (Miles 2016). In the case of architectural space, cultural institutions themselves become subjects of capture. However, as John Falk (2006: 151) observes, visitors actively use the social and physical context of the museum to create personal meaning (Falk 2006). Social surroundings, too, become part of this repertoire: photographing friends, groups, or performances enacts identity not only through art and architecture but through socially situated activity. What once might have remained private or limited to a smaller circle now leaves durable, algorithmically amplified traces.

When we talk about museums, they also hold a symbolic dimension, having long been established as places of culture, education, and aesthetic revelation. By photographing and

incorporating museum objects into their social media feeds, visitors can transfer some of the aura or symbolic significance of these artifacts onto themselves (Rounds 2006). At the same time, however, as we previously observed, they also contribute to shaping the institution's identity. Visitors' images function as subjective or collective interpretations of the space and its collection, re-curating exhibitions beyond the institution's walls and into online environments (Villaespesa and Wowkowych 2020). As represented in Figure 4, these practices operate along two interlinked dimensions: the construction of personal identity and the re-curation of the museum online. Visitors incorporate artworks, artifacts, architecture, social interactions, and even practical items into their digital repertoires, each contributing to both individual self-fashioning and institutional representation. What determines whether these objects or moments are captured and circulated often depends on four recurring criteria: their narrative relevance, perceived importance, iconic quality, or visual attractiveness (Miles 2016).

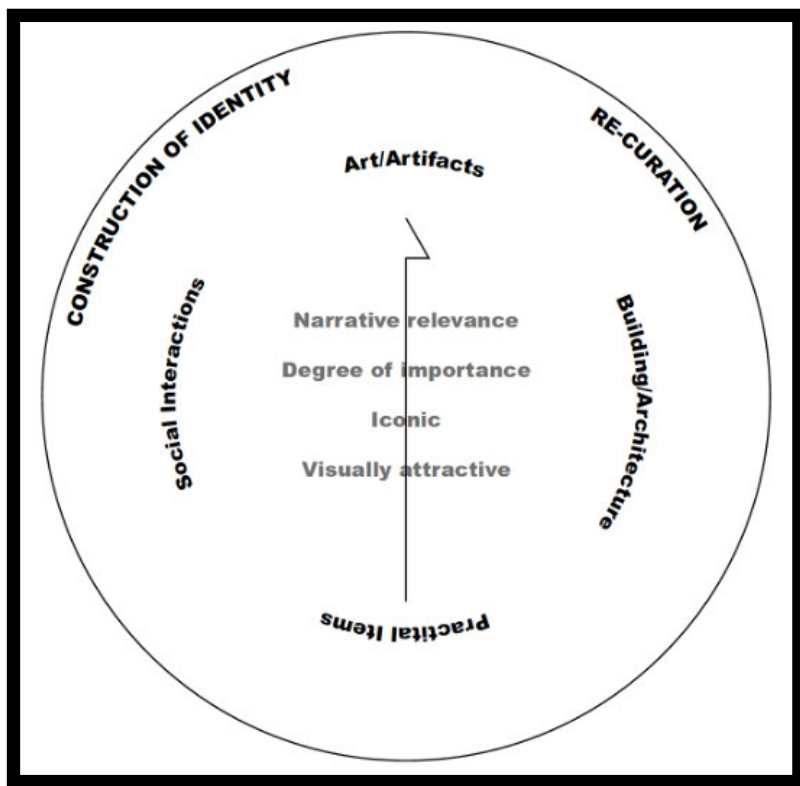


Figure 4. Graphic representation of visitors' practices of photography while visiting cultural institutions. Diagram by the author. Originally published in Tomarchio (2021, 2023).

Interactivity adds another layer. Installations that invite participation, experiential environments, or technologically immersive works are especially effective at generating content, as they allow the visitor's body to be directly incorporated into the image (Budge 2018). This intertwining of exhibition design and media production raises new questions for curatorship: how should practices evolve, considering audiences' compulsion to document and share?

When such criteria intersect with the affordances of social media platforms, they generate feedback loops of *mimicry*: once particular objects, views, or experiences dominate online circulation, subsequent visitors reproduce them, photographing

and reposting similar content. Over time, this repetition produces emergent, self-organizing forms of digital curatorship, where audiences themselves create hierarchies of visibility that shape how museums are perceived both on-site and online. The diagram thus visualizes how personal identity works and institutional re-curation are mutually reinforcing, entangled through cultural hierarchies and algorithmic amplification.

2.5 Markets, Value, and Influencers

In art production and consumption, the value of art can be defined by two dimensions: aesthetics (i.e., art for art's sake) and economically viable cultural production. Gladys Engel Lang (1990) argued that the value of art was traditionally determined by two roles: the gatekeepers and the audience. The gatekeepers (curators, museum directors, gallery directors) establish conventions. At the same time, the audience ultimately determines the value of art by deciding whether to consume it or not (Lang and Lang 1990). Mass consumption of a cultural good is informed by its collective consumption, which is the tendency to consume what other people consume. Over the past two decades, this collective consumption has been reinforced by the digitalization of cultural goods (e.g., movies, music, books, media) and the introduction of recommendation systems to facilitate browsing and consumption. In addition, the digitalization of cultural goods has introduced new actors into the creation of its value chains. In a digitally mediated community, users who interact in the consumption of goods should no longer be considered solely the audience of the work of art but increasingly need to be seen as gatekeepers themselves. In this sense, the mediated community now contributes to the interpretation and the production process of art.

When examining visual art, social media offers visually oriented platforms that are playing an increasingly significant role in the production, consumption, and creation of art value. Instagram galleries and artists' channels on social media now

play a significant role by influencing collectors on what to buy and artists on how to produce, or even by offering a platform for digital art itself.

On visual platforms, collectors not only browse but also express their taste. They discover new artists, signal their acquisitions, and cultivate followings that position them as influencers. In this way, collectors' posts impact both the visibility and the market value of works even before transactions occur. The act of sharing thus functions simultaneously as an aesthetic judgment, an economic investment, and a social positioning.

Galleries and art fairs have adapted accordingly, curating their Instagram presence as a parallel exhibition space where works are displayed, contextualized, and often sold through direct contact initiated via the platform. Surveys confirm that Instagram has become one of the primary channels through which collectors first encounter works, with a significant share of acquisitions traced back to digital discovery (Art Basel and UBS 2018).

The logic of social media has also fostered the rise of influencers as cultural intermediaries. Beyond traditional collectors, lifestyle influencers, critics, and even artists themselves mobilize large followings to amplify trends, elevate aesthetics, and shape perceptions of value.

The recent trajectory of NFTs illustrates both the potential and the precarity of such digitally mediated value systems. In March 2021, *Beeple's Everydays: The First 5000 Days* was sold at Christie's for USD 69 million (Christie's Press Center 2021). Soon after, artists such as Pak and Refik Anadol gained global visibility by using NFTs not only as an artistic medium but also as a distribution infrastructure. Platforms like Nifty Gateway and OpenSea became central to this emerging ecosystem. However, by 2023, the market had contracted sharply: sales of art-related NFTs on platforms outside the traditional art market dropped from a peak of USD 2.9 billion in 2021 to just USD 1.2 billion in 2023, a decline of around 51 percent (Art Basel and

UBS 2024). Institutions and collectors approached the field with increased caution, reflecting broader economic uncertainty and the cooling of speculative demand. While the speculative frenzy subsided, NFTs have left behind infrastructures, communities, and debates about ownership that continue to shape the online artistic economy. The boom-and-bust cycle highlighted the risks of overly tying cultural value to volatile digital markets. The intensified adoption of social media within the art field has not only provided a channel for distribution but also facilitated a new form of engagement. However, it has also transmitted the very logic of social platforms into the art market. The case of NFTs demonstrates this dynamic: their rapid acceleration, viral circulation, and subsequent decline mirror the rhythms of social media itself, where attention peaks sharply before fading just as quickly. What was initially presented as a technological revolution soon revealed itself as subject to the same algorithmic cycles of visibility and obsolescence that shape digital cultures more broadly.

Taken together, these developments demonstrate that value in the contemporary art world is increasingly determined by platform-mediated social processes: not only the judgments of curators and the consumption patterns of audiences, but also the algorithmic amplifications of influencers, collectors, and creators. Value emerges at the intersection of aesthetic criteria, economic exchange, and digital visibility.

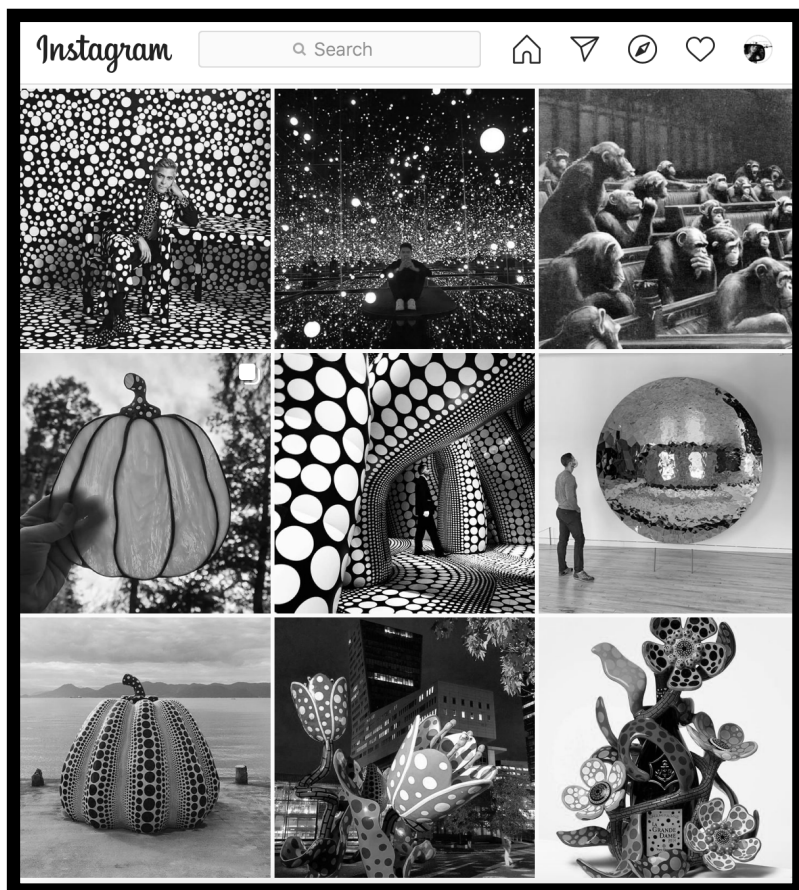


Figure 5. #Kusama, Instagram hashtag feed. Screenshot from Instagram (<https://www.instagram.com/explore/tags/kusama/>), visited in 2020, reproduced here in black and white.

2.6 Conclusion

The analysis in this chapter has traced how social media reshape art across production, dissemination, participation, institutional practice, markets, and algorithmic mediation. What emerges is not a linear flow from artist to audience but a set of recursive dynamics in which production, framing, perception, and value continuously inform and transform one another. Artistic practice on social media operates through feedback loops: the post becomes raw material for remix, metrics of visibility recalibrate value, institutional communication turns into curatorial space, and algorithmic filters act as invisible co-authors.

The next chapter develops this argument further by shifting the analytical lens from art to space. By reframing social media not merely as communication platforms but as infrastructures of Hybrid Space, we can better grasp how the dynamics of visibility, participation, and algorithmic mediation translate into new forms of spatial organization and cultural production.

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3. Hybrid Space

The previous chapter traced how social media practices circulate art and influence production by co-authorship and participatory modes. This chapter shifts the lens from art to space, examining how the social production of space has changed due to the introduction of digital technologies, in general, and social media, in particular. To do so, I refer to the term of Adriana de Souza e Silva, Hybrid Space, that names a condition in which digital and physical are no longer separable domains but coextensive arrangements: “a hybrid space occurs when one no longer needs to go out of physical space to get in touch with digital environments” (de Souza e Silva 2006: 264). I revisit this concept from a socio-spatial angle.

To develop this argument, the chapter differentiates among three analytical levels, each of which examines the differences between hybrid and non-hybrid spatial production. At the most fundamental level, **structural dynamics** describe how differently hybrid space is constituted through everyday practices. Building on this, **cultural grammars** highlight how people navigating hybrid spaces often behave similarly in ways observed in their navigation of digital spaces and social media, such as creating filter bubbles or promoting virality. Finally, **spatial logics**, drawing on Löw and Knoblauch’s theory of spatial figures, explain how hybrid production of space becomes spatialised within configurations or figures of networks, territories, and places (Knoblauch and Löw 2025). This threefold framework allows Hybrid Space to be approached as simultaneously produced, lived, and spatialised.

3.1 Genealogy & Terminology: From Cyberspace to Hybrid Space

We live in Hybrid Spaces. People carry connected devices, such as smartphones, watches, fitness trackers, Bluetooth tags, and other wearables, that facilitate everyday navigation and communication: checking bus times, arranging meetings with friends, avoiding traffic, and coordinating plans. Even without a device, most are within range of wireless networks.

Nearly two decades ago, Adriana de Souza e Silva introduced the term Hybrid Space, in *Space and Culture*, defining it as a social space created by mobile connectivity. Hybrid Spaces, she argued, are “mobile spaces, created by constant movement of users who carry portable devices continuously connected to the Internet and to other users” (2006, p. 262). With mobility, sociability, and connectivity converging, “the boundaries between digital and physical spaces no longer exist” (2006, p. 271). A hybrid space occurs “when one no longer needs to go out of physical space to get in touch with digital environments” (2006, p. 264).

This formulation directly contested early 2000s imaginaries of cyberspace as a distinct and separate domain. Popular accounts often described people as “entering” digital realms to socialize (Bell and Kennedy 2000), while critics feared that media use would detach individuals from their immediate surroundings (Katz and Aakhus 2006). Sympathetic explorations, such as Mizuko Ito’s notion of “tele-cocoons” and “camping” (2003), demonstrate how mobile media can simultaneously privatize and intensify public experiences, even while still tending to frame the digital as separate (Itō et al. 2006).

Early internet use still treated the physical and digital as distinct. The tethered desktop reinforced this divide: one had to “log off” the street to “log on” to the Net. With the arrival of mobile and locative media, this dualism began to collapse.

While de Souza e Silva highlighted that “a hybrid space is not constructed by technology” (2006, p. 266), but rather through social practices mediated by devices, much of the debate still leaned on a media-technological lineage (Campbell 2019; Akker 2018) intending that the hybrid space was brought about by the technological affordances of the time.

The genealogy of Hybrid Space reaches beyond this media-technical lineage. Other traditions emphasized how mediation has long produced space, as seen in postcards and novels in the nineteenth century, and in photography and cinema in the twentieth, each blurring the boundaries between presence and representation. Taken together, this genealogy shows that Hybrid Space is not simply a technical artifact of mobile devices. It is a socio-spatial condition, historically anticipated in earlier media, intensified through mobile and locative infrastructures.

The original concept, however, reflected the technological moment of its time: tiny screens, costly 2G data, call-and-text domination, and early GPS experiments. Since then, the ecosystem has expanded dramatically: smartphones with embedded location-awareness (from iPhone 3G onward), a myriad of social and locative apps (Foursquare, Grindr, Instagram, TikTok), AR games (Pokémon GO), navigation platforms, innovative infrastructure, and sensor-rich “smart” environments.

Crucially, de Souza e Silva (2006) framed Hybrid Space around three key elements, then highlighted in a more recent text (De Souza E Silva et al. 2025): mobility (the movement of people and information), connectivity (to social and informational networks), and sociability (communication between users).

De Souza and Silvia have published several articles recently, including an updated definition of Hybrid Space (De Souza E Silva et al. 2025). First, the triad has pluralized: mobilities (including immobilities and moorings), connectivities (across diverse portable and embedded systems), and sociabilities (from peer-

to-peer to institutionally structured interactions). Second, Hybrid Space must be recognized as a stratified and power-structured entity. Uneven access, awareness, and agency (or lack of it) shape who participates, how, and to whose benefit: from rural connectivity gaps to software-sorted urban life, from surveillance in the “sensor society”, to corporate scripting of movement and encounter (De Souza E Silva et al. 2025)

We now live in Hybrid Spaces, where digital connectivity and physical presence are deeply entangled. Nevertheless, this condition is unevenly distributed. Some people are hyperconnected, carrying multiple devices and seamlessly navigating between online and offline contexts (Parisi 2015). Others remain on the margins of this connectivity, excluded by the digital divide—whether due to economic barriers, lack of infrastructure, or limited digital literacy (Indaco and Manovich 2016). These inequalities are often spatialized: urban areas tend to concentrate the infrastructures, platforms, and practices that sustain hybrid spaces, while rural contexts may experience patchier or slower integration. Importantly, hybrid space is not reducible to social media alone. Although our present discussion focuses on social media as a central case, hybrid spaces encompass a broader range of applications and technologies that mediate everyday life. Hybrid Space must be understood as relational, multi-figural, and stratified—a hybrid soup in which the ingredients of physical and digital can no longer be disentangled, yet are distributed and contested unevenly.

To clarify the conceptual framework, it is helpful to distinguish between three levels at which hybrid space can be analysed. At the most fundamental level, **structural dynamics** describe how hybrid space is constituted through relational arrangements, platform rules, and algorithmic acceleration. Building on this, **cultural grammars** capture how hybrid space is inhabited and lived through practices such as self-curation, affective attachments, or the fear of missing out. Ultimately, **spatial logics elucidate** how hybrid spaces become spatialized

according to the logic of specific “figures,” or configurations, such as networks, territories, and places. This differentiation prevents conceptual slippage: structural dynamics explain the mechanisms of production, cultural regimes illuminate lived experience, and spatial logics show how these processes crystallize into recognizable forms of social organization.

3.2 Hybrid Space in Everyday Spatial Production and Its Structural Dynamics

Hybrid Space, as conceptualized by Adriana de Souza e Silva (2006), is intended as a social space (De Souza E Silva 2004). To develop this notion further, this book adopts a relational definition of space, in which space is understood as a set of dynamic relationships between people and objects. It is constituted through spacing, the positioning and relating of people and social goods (benches, façades, screens, apps), and synthesis, the integration of these relations into a coherent spatial arrangement in perception and practice (Löw 2016, 188). These processes are continuous and overlapping, encompassing perception, experience, and action as well as structuring and understanding. Spatial arrangements are thus not static but socially negotiated, tied to bodies of knowledge about appropriate behaviour, the meanings embedded in spaces, and the purposes they serve. Significantly, these arrangements are continually reshaped through perception, imagination, and memory, and mediated within broader social and technological contexts (Löw 2016). Both spacing and synthesis are therefore always shaped by shared and contested stocks of spatial knowledge.

As Castillo Ulloa et al. (2023) argue, spatial knowledge encompasses the ways individuals interpret and form connections to space, whether through enlivened experience or mediated representation via narratives, media, and platforms (Castillo Ulloa et al. 2023). This mediation is not unique to the social media era. The coexistence of physical space and mediated

representation has a long history. What has changed with Hybrid Space is the speed, intensity, and formatting of these circulations. Social media platforms not only disseminate spatial knowledge but also transform it in real-time, enabling interaction, commentary, and reconfiguration, and doing so according to algorithmic and aesthetic logics that privilege some practices while obscuring others.

To further elaborate on these concepts, I propose an example. Consider a teenager in Naples waiting for friends in a piazza while scrolling TikTok videos of an art installation in Paris. Three arrangements are synthesized at once: (i) the immediate piazza, with its caf  s, passers-by, and waiting routines; (ii) the TikTok interface, with its filters, captions, and interaction norms; and (iii) the imagined installation in Paris, pieced together from short clips, commentary, and trending hashtags. A pose that circulates online as part of this installation may be amplified by TikTok’s algorithms, gaining visibility among users with similar interests and becoming a recognizable part of a visitor’s routine. When reenacted on site in Paris, however, the same gesture may clash with the expectations of co-present publics, prompting new negotiations of behaviour.

This hybrid synthesis blurs the distinction between “lived” and “mediated.” Once spatial practices circulate through chats, maps, reels, and memories, they can no longer be disentangled from originals. The metaphor of the hybrid soup captures this well: ingredients of spatial knowledge are mixed, accelerated, and recirculated in ways that make separation impossible. Even mundane practices—such as waiting in a piazza or riding the subway—are shaped by prior encounters with mediated information, including schedules, images, or viral trends, illustrating how hybrid space permeates everyday life.

What distinguishes contemporary Hybrid Space, then, is a set of **structural dynamics** that organize its everyday production:

✚ **Multiplying.** Hybrid experience rarely rests on a single arrangement. People inhabit multiple spaces simultaneously—streets and screens, feeds, experienced in parallel rather than sequentially. The teenager in Naples does not simply wait in a piazza; they are inhabiting several spaces at once. Their attention alternates between the rhythms of the street, the streams of TikTok, and the imagined installation in Paris. These layers do not unfold sequentially but in parallel, creating an entangled experience in which the bustle of the piazza is interpreted alongside algorithmically curated images from afar.

✚ **Hybrid negotiation.** Spatial meanings are never stable but continually renegotiated through on site and digital mediation. Tags, poses, and check-ins circulate across platforms, subtly reshaping spatial arrangements. The meaning of both the piazza and the Paris installation is continuously renegotiated through this mediated interaction. A pose seen repeatedly online becomes a suggested script for behaviour, but whether it is embraced, mocked, or ignored in Paris depends on the reactions of on-site negotiations.

✚ **Stratified access.** Hybrid Space is not equally accessible. Differentials of literacy, connectivity, and algorithmic filtering generate uneven stocks of spatial knowledge. Not everyone in the piazza shares the same hybrid awareness. At the same time, one teenager scrolls through TikTok, while others without smartphones, data plans, or familiarity with the platform experience the space differently. For them, the art installation in Paris may not even enter their perceptual field. Hybrid Space here is layered but also stratified: some participants can draw on digitally mediated spatial knowledge, while others are excluded, reinforcing inequalities of participation.

+ Platform rules as structuring

agents. Platforms act as infrastructures of visibility. Their aesthetics, interaction grammars, and metrics script what counts as legitimate, desirable, or valuable. TikTok's interface AI driven recommendation system and conventions subtly script what is visible and valuable. The teenager is not encountering a neutral record of the Paris installation but a highly curated feed of short clips, filters, and interaction grammars. These conventions determine not only how the installation is represented but also how it is imagined and possibly reenacted.

+ Algorithmic acceleration. Platform logics amplify and normalize spatial practices at high speed. What begins as a singular performance, such as a pose in front of an artwork, can quickly crystallize into a widely shared routine, naturalizing certain behaviors while erasing others. Once TikTok's algorithms amplify a gesture, it spreads quickly and acquires normative weight. A pose that might have been performed only once in Paris can be algorithmically highlighted, repeated by thousands, and sedimented as the "expected" way to engage with the installation. When the teenager in Naples later visits Paris, they may feel compelled to perform it, reproducing a routine that originated less from the museum itself than from its accelerated circulation online. However, this normativity is unstable: trends have a finite lifespan. By evening, a new filter may eclipse yesterday's pose; what seemed obligatory at noon is obsolete by night. Hybrid routines are therefore not only accelerated but also ephemeral, continually overwritten by the rhythms of updates, seasons, and shifting platform priorities.

3.3 Cultural Grammars of Hybrid Spaces

The previous section identified the structural dynamics of Hybrid Space. These describe how spatial production itself changes when digital and physical registers become entwined. How spacing and synthesis unfold simultaneously across streets and screens, how infrastructures and literacies stratify access, and how algorithmic acceleration reshapes the rhythms of circulation.

Alongside these dynamics, however, Hybrid Space is also shaped by a second layer: **cultural grammars**. These do not describe how space is produced, but rather how it is lived and experienced once it is produced. They capture the translation of online cultural practices, identity curation, algorithmic clustering, anticipation, and virality into spatial practices. What begins as patterns of participation within social media feeds becomes entangled with how people navigate, value, and contest urban environments.

In this sense, cultural grammars reveal how familiar digital phenomena, such as filter bubbles (Pariser 2011) or viral scripts, migrate into the spatial field, structuring the everyday experience of Hybrid Space.

✚ **Filter bubbles → Parochial publics.** Digital platforms group users into algorithmically defined clusters, reinforcing existing preferences and limiting exposure to differences (Pariser 2011). In Hybrid Space, this clustering spills into urban practice: people converge on venues and districts that are surfaced by their feeds, creating *parochial publics* (Lofland 1998). The result is a narrowing of encounters in public life, where even formally open spaces, such as squares, parks, or museums, are populated by segmented publics who share mediated stocks of knowledge but rarely intersect with others outside their algorithmic bubble.

➤ **Trends→ Spatial scripts.** Trends are a digital logic in which formats replicate across platforms through repetition, imitation, and rapid circulation. In Hybrid Space, this logic materialises as *spatial scripts*. Infinity rooms, mirrored corridors, and immersive pop-ups are designed less as unique cultural forms than as replicable, shareable templates calibrated for circulation and consumption. Visitors, in turn, enter such spaces with expectations already shaped by images they have encountered online, reproducing poses and gestures as if following a script. The logic of the trend thus directly informs both spatial design and embodied practice.

➤ **Virality → Feedback loops of attendance.** Online, popularity is self-reinforcing: what is liked and shared becomes more visible, viral, which attracts further engagement. In Hybrid Space, this logic translates into patterns of attendance. A trending artwork or café attracts an initial wave of visitors whose posts generate additional visibility, drawing larger crowds and reinforcing the cycle. These feedback loops blur the boundary between digital attention and physical presence, and they are increasingly influencing cultural programming as institutions that adjust to what performs well online.

➤ **Self-curation and identity work.** On social media, users curate profiles and feeds to present carefully staged identities. In hybrid conditions, this practice extends into spatial experience. A selfie, geotag, or short video is not only documentation but an act of incorporation, weaving places into the narrative of self. Spaces are increasingly navigated with an eye toward how they can be appropriated for identity production, turning public settings into resources for self-performance. In this way, identity work and spatial practice intersect (Kozinets et al. 2017).

✚ **Logics of visibility and invisibility.** Online, visibility is structured by algorithmic surfacing and recommendation systems: some content is amplified while other content remains unseen. In hybrid conditions, this asymmetry is translated into the spatial field. Specific sites become hyper-visible through geotagging, hashtags, and recommendations, while others are rendered invisible, absent from feeds, maps, and searches. These uneven regimes of visibility do not simply reflect individual choices but reproduce wider power asymmetries, privileging sites and publics that align with platform logics while marginalising others. Hybrid Space is therefore not only shaped by what is seen but also by what remains unseen.

Taken together, these **cultural grammars** illustrate how the experiential layer of Hybrid Space is structured by the migration of online logics into urban practice.

3.4 Spatial Logics of Hybrid Space

Distinct spatial logics organize Hybrid Space. To capture this dimension, it is helpful to turn to the work of Martina Löw and Hubert Knoblauch, who describe contemporary society as undergoing a broad *refiguration of spaces*. Against the idea of globalisation, they propose refiguration, a restructuring in which multiple spatial orders overlap, collide, and coexist. Global trade routes, digital infrastructures, communication networks, and territorial produce a complex landscape of competing logics. Within this framework, Löw and Knoblauch propose four “spatial figures”—territory, network, trajectory, and place—as ideal types that make visible how different orders of space coexist..

✚ **Territorial space** emphasizes enclosure, boundedness, and exclusion, seen in entities such as borders, gated communities, or school districts.

- + **Network space** is structured around connections and flows, rather than contiguity, enabling relations across distance through infrastructures such as logistics systems.
- + **Trajectorial space** highlights mobility and sequencing, following the paths of bodies, goods, or signals across time and space.
- + **Place** is marked by situated co-presence and symbolic attachment, created through shared rituals and practices.

These figures are not mutually exclusive. They coexist, overlap, and often conflict with one another. Hybrid Space, with its digital-physical entanglements, is precisely a setting where these different logics interweave.

In its early formulations, Hybrid Space was typically understood as a manifestation of *network space*. De Souza e Silva (2006), for instance, described it as a mobile, networked environment in which users remain connected to each other and to digital platforms through location-aware devices. In this interpretation, the network is mobile, suggesting that Hybrid Space was enacted through the trajectories of digitally equipped bodies moving through the city, thereby bringing into play the spatial figure of the trajectorial space as well as digital equipped body moving.

However, reducing Hybrid Space to either a network or a trajectory risks oversimplification. Every day practices increasingly demonstrate that hybrid arrangements involve other spatial logics. A square that becomes visible through TikTok trends, a café labeled as “cozy” on Google Maps, or a co-working space recommended by an algorithm are not experienced as unbounded networks, but as *places*, emphasizing the place-making agency of spatial production in hybrid spaces (Parisi 2015). Mobile communication and social media imbue locations with symbolic and affective value, transforming

them into intimate environments of memory, identity, and attachment. A square in Naples becomes not just a meeting point but a setting charged with shared digital narratives; an art installation in Paris acquires meaning through viral poses and hashtags. Digital practices—such as tagging, sharing, and archiving—enhance the symbolic density of place, layering memory and recognition onto physical environments.

At the same time, information and preselection create an experience of space that is pre-filtered, de facto relating to the logic of *territory*.

Mobile territories. To capture these emergent conditions, I propose the notion of *mobile territories*: digitally mediated zones whose boundaries are drawn not by walls but by algorithms, ratings, and social cues. Unlike fixed enclosures, mobile territories are fluid, enacted in movement, and recalibrated as data streams shift. They are nonetheless powerful: they steer mobility and sort publics. AI Filtering or active pre-selection, whether through search engines, mapping services, or recommendation systems, translate into invisible thresholds of belonging and exclusion. A neighbourhood, café, or exhibition may thus be experienced as a personalized territory, curated by the logics of digital mediation. Often, territorial and place-based logics converge to produce what Lyn Lofland called *parochial spaces*—environments defined by familiarity, shared norms, and predictable social interaction (Lofland 1998). In hybrid conditions, parochiality is no longer tied to stable communities but emerges through digital curation. Hashtags, likes, and ratings guide the public toward bounded spaces where they can expect cultural alignment and minimize unpredictability. The result is a form of *digitally cultivated parochialism*: mobile-territories that feel safe, familiar, and homogeneous, even when situated within larger, heterogeneous urban settings.

Hybrid Space, then, cannot be reduced to a single spatial figure. It retains the connective potential of networks, enacted through trajectories of movement, while also incorporating the boundary-making tendencies of territory and the symbolic richness of place. The result is a spatial condition best understood as a *composite of spatial figures*, continuously reconfigured through the interplay of infrastructures, algorithms, and everyday practice.

3.5 Implications for Design and Architecture

If Hybrid Space is organized by the logics described above, what does this mean for the practice of design and architecture? Too often, the response has been limited to surface adaptations, treating hybrid conditions as an aesthetic trend rather than as a socio-spatial transformation that demands critical engagement.

From Instagrammability to Design Logics: A dominant response has been the pursuit of “Instagrammability,” where spaces are engineered for instant capture, circulation, and recognition. As Alexandra Lange observes, “the message has to be immediate, like a ready-made slogan” (Lange 2014). This imperative simplifies architecture for screen consumption, reducing complex environments to photogenic silhouettes and color-coded gestures. Tom Wilkinson critiques this tendency as flattening architecture into “selfie stage sets,” where visual props displace functional or experiential depth (Wilkinson 2015). Fiocco and Pistone extend this critique by reading such sleek attractions as neoliberal commodities, which are calibrated for circulation among paying publics while excluding those without the necessary resources, access, or digital literacy to participate (Fiocco and Pistone 2019).

In recent years, so-called *Instagram museums* have opened in many cities. Their interiors consist of brightly colored sets, each designed around a viral aesthetic: ball pits, neon slogans, and mirrored corridors. Visitors queue not for an exhibition

but for the chance to generate content, paying for timed entry slots. The site functions more as a monetized infrastructure for image production than as a cultural venue. Those unable to afford admission or unwilling to participate online are excluded entirely from participation. Such buildings are not museums in any traditional sense—they are architectural apparatuses for algorithmic visibility.

Designing with media in mind is not a new concept. Hugo's (1831) warning that "this will kill that," Venturi and Scott Brown's studies of the roadside "duck" (1972), and McLuhan's framing of media as environmental extensions (1974) all pointed to the ways design and communication intertwine. What distinguishes the current moment, however, is not the entanglement itself but the narrowness of its architectural translation. Instagrammability is too often pursued as an end in itself: a stylistic add-on that treats architecture as a commodity in the attention economy, stripped of depth, politics, or collectivity.

The challenge for design, then, is not to perfect the photogenic surface but to recognize Hybrid Space as an operational condition—one in which infrastructures, algorithms, and publics co-produce environments. Critical design practice must attend to how platforms pre-structure use and meaning, how infrastructures privilege some groups while excluding others, and how algorithmic filtering stratifies access to visibility and participation.

Design in Hybrid Space is not about staging images, but about exposing and resisting the power asymmetries embedded in contemporary spatial production. Until designers and architects confront these conditions directly, Hybrid Space will remain a playground for commodified visibility rather than a terrain for collective appropriation.

3.6 Conclusion

This chapter has reframed Hybrid Space as more than a technical artifact of mobile media. By situating it in a socio-spatial perspective, I argued that Hybrid Space is produced through relational practices of spacing and synthesis, lived through cultural grammars that translate online logics into embodied routines, and organized through spatial figures that crystallize into networks, territories, trajectories, and places.

The implications are far from neutral. Hybrid Spaces intensify inequalities of access, channel publics through algorithmic filtering, and commodify visibility. The architectural response so far—designing for “Instagrammability”—has largely reproduced these dynamics, flattening spatial experience into a stage for circulation rather than cultivating spaces of collectivity or critique.

If Hybrid Space is to be understood critically, it must be approached not as a stylistic trend but as an operational condition. In this socio-technical environment, infrastructures, platforms, and publics co-produce meaning and negotiate power.

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4. Hybrid Art Space

Building on the theoretical framework developed in Chapter 3, this chapter moves from a general understanding of Hybrid Space as a socio-spatial condition toward its specific manifestations in the field of art.

4.1 From Hybrid Space to Hybrid Art Space, Place, Venues and Site

In the previous chapter, I proposed that hybrid space is a relational mode of spatial production in which social processes staged in digital and material environments are inseparably intertwined. Here, I extend that argument into the domain of cultural production, asking how art, curation, and audience participation shape these hybrid conditions.

Hybrid Art Space refers to the production of space through artistic, curatorial, and mediatic practices that shape the making, display, and circulation of art under hybrid conditions. It describes a relational process, a field in which the spatial experience of art is co-produced by artists, institutions, audiences, and algorithms. Hybrid art spaces emerge wherever acts of artistic creation, exhibition, and participation intersect with digital mediation, producing environments that are simultaneously material and communicative. In this sense,

Hybrid Art Space encompasses both the production and the experience of art. Within this formation, the boundaries between presence and mediation, between viewing, creating, and sharing, are no longer stable. Audiences do not merely visit exhibitions; they extend, annotate, and redistribute them through digital acts of participation. The publics of hybrid art spaces, therefore, multiply and stratify, meaning is negotiated as much on platforms as on-site, across overlapping contexts of spectatorship, authorship, and data exchange.

At the same time, Hybrid Art Space redefines cultural value and visibility. Worth no longer stems solely from institutional authority or curatorial framing but from the interplay between audience practices, algorithmic amplification, and institutional mediation.

In short, Hybrid Art Space is the condition of cultural production and experience under hybrid circumstances, where visibility itself becomes a spatial practice, continuously shaped by the co-action of humans, media, and infrastructures.

From Hybrid Art Space to Hybrid Art Place. Suppose Hybrid Art Space describes the general condition of artistically related spatial production under hybrid circumstances. In that case, **Hybrid Art Place** refers to its situated manifestation; the identifiable venues where these dynamics acquire material form, social density, and symbolic meaning. Following Martina Löw's relational sociology of space (2016), *place* arises when a configuration of relations becomes nameable, memorable, and affectively charged. When a museum, installation, or festival becomes a recognizable node within digital culture, then it is a Hybrid Place. Their spatial identity is composed as much through images, hashtags, and metrics as through walls, programs, and audiences. I use the term **Hybrid Art Venues** to describe those instances in which Hybrid Art Places become empirically observable—when the fluid dynamics of hybrid production condense into concrete configurations of architecture, mediation, and participation.

From Hybrid Art Place to Hybrid Art Site. Finally, the concept of **Hybrid Art Site** moves from the condition to the operational field. Here, the term site is drawn from architectural and urban theory, particularly from Carol Burns and Andrea Kahn's (2005) definition of *site* as a relational construct, spatially elastic, and temporally provisional. Rather than denoting a bounded location, the site describes what a place does within a wider network of relations: its zones of influence, control, and effect. Applied to the hybrid

condition, Hybrid Art Site designates the arena in which the dynamics of hybrid space become operative—where curators and planners engage in acts of spatial mediation, reflection, and negotiation, the points where conceptual understanding becomes spatial action. In this book, such sites return in later chapters as the operational environments of cultural work mapping hybrid territories, tracing emergent clusters, and developing curatorial and planning tools.

4.2 Historical Lineages of Hybrid Art Space

While the term Hybrid Space emerged in media theory in the early 2000s, the entanglement of art, media, and spatial imagination has a much longer genealogy. Understanding Hybrid Art Space and Place requires tracing these interconnections across media forms that have continually redefined how art and its locations are experienced, shared, and spatialized.

Early mediations, such as postcards and photography, allowed art spaces to travel. At the turn of the twentieth century, picture postcards of the Louvre or the Venice Biennale circulated images of museums and monuments far beyond their physical locations, transforming them into global imaginaries. Photography similarly detached the artwork from its site, creating what we might call mediated co-presence—a sense of being with art across distance.

Cinema extended this logic into an immersive collective experience. Films set in museums, from Alain Resnais's *Toute la mémoire du monde* (1956) (Wikipedia 2025) to Jem Cohen's *Museum Hours* (2012) (Wikipedia 2025a), did not simply document exhibitions; they re-narrated them. Through montage, lighting, and sound, cinema re-staged museums and libraries as sites of affect, politics, and spectatorship, thus prefiguring the experiential dramaturgy of later digital installations.

In the 1990s, digital and net art translated this dispersed spectatorship into interactive form. Artists such as Jeffrey Shaw (*Legible City*, 1989) (Shaw 1989) or Char Davies (*Osmose*, 1995) (Char Davies 1995), experimented with virtual environments that turned viewers into participants. These projects reconfigured both the gallery and the screen: they were not only seen but also navigated, anticipating later forms of networked immersion even as they mediated cities (New York in the case of the legible city) or nature (in the case of *Osmose*), reconfiguring spatial and media identities.

The early 2000s saw the emergence of locative media art, which explicitly fused mobility, data, and place. Works like Blast Theory's *Uncle Roy All Around You* (2003) (Blast 2003) or Christian Nold's *Bio Mapping* (2004–ongoing) (Nold 2009) connected urban movement to digital overlays, generating hybrid spatial narratives that unfolded through GPS tracking, text messages, and real-time mapping. These practices transformed the city into a responsive interface—a distributed museum where spatial experience and data intertwined.

Today, museums integrate these logics through the use of augmented and virtual reality. Augmented Reality applications such as the *AR Rembrandt Reality app* (2019) (Capitola 2003) allow visitors to view paintings as living interfaces—works that react to bodily position, gesture, or mobile perspective. VR installations, such as Marina Abramović's *Rising* (2018) (Acute Art 2019) or the *Mona Lisa: Beyond the Glass* experience at the Louvre (2019) (Dominique de Font-Réaulx 2019), extend this hybridization into fully immersive environments, where the visitor inhabits a simulation rather than merely observing an object. These technologies blur distinctions between on-site and online spectatorship: the museum becomes a dynamic system of sensors, databases, and projections, in which art is simultaneously experienced, recorded, and augmented.

Social media consolidates this shift by transforming these experiences into algorithmic archives. Platforms such as Instagram or TikTok operate as extensions of the exhibition space: images of immersive installations—like teamLab’s *Borderless* (2024) (teamlab 2024) or Refik Anadol’s *Unsupervised* at MoMA (2024) (Refik Anadol 2024), circulate globally, shaping not only the reception but also the production of art.

Taken together, these lineages reveal that Hybrid Art Space is not a product of the smartphone era alone but the crystallization of a century-long evolution, from postcards to AR filters, from cinema to VR installations. Hybrid Art Space, in this sense, is both a continuation and an acceleration of art’s long-standing dialogue with technological mediation.

4.3 Hybrid Art Place: Concept and Example

Hybrid Art Places, as I propose here, names the condition in which art venues are simultaneously experienced, produced, and circulated across physical, digital, and algorithmic registers. A gallery or installation is a relational environment in which on-site encounters, mediated representations, and algorithmically structured circulations interact and co-produce one another. The logics of social media, virality, feedback loops, and identity work are not external to these spaces but woven into their very spatial production. The socio-spatial dynamics of Hybrid Space, multiplying arrangements, hybrid negotiations, stratified access, platform rules, and algorithmic acceleration, manifest acutely in art contexts, where visibility, value, and participation depend simultaneously on cultural authority and digital circulation, as exemplified in the example below.

A notable example is teamLab’s long-running exhibition, *Future World: Where Art Meets Science*, at Singapore’s ArtScience Museum (teamlab 2016). Since 2016, the collective has staged

a series of immersive environments where waterfalls cascade across walls, flowers bloom and decay on visitors' bodies, and glowing orbs respond to touch. Visitors inhabit the installation physically—walking, touching, and waiting in line—while simultaneously engaging with digital interfaces that document and circulate the exhibition. The space is thus produced through multiple, interdependent arrangements: the embodied encounter with projections and sensors, the camera interface that frames experience, and the algorithmic stage of Instagram or TikTok where those images acquire new meanings.

Within this ecology, spatial meaning becomes a matter of hybrid negotiation. Curators frame Future World as an exploration of the relationship between art and science; visitors, in turn, reframe it through acts of self-curation. The waterfall becomes a selfie backdrop, the lantern room a stage for group choreography, and the glowing orbs props for playful TikToks. These user-generated interpretations do not simply document the exhibition—they reshape it. The museum's own marketing incorporates such content, acknowledging that publics on digital platforms co-author the exhibition's meaning. Interactivity thus operates not only in the responsive artwork but also in the recursive loop of reproduction, circulation, and re-mediation. The rhetoric of interactivity thus conceals an asymmetry: participation becomes data, and affective engagement translates into algorithmic visibility. Access to this hybrid dimension, however, is uneven. Those with high-quality devices, social visibility, or digital fluency dominate Future World's online presence, while others remain peripheral. This stratified access mirrors broader divides in hybrid environments, where infrastructure, literacy, and algorithmic privilege determine who can shape collective narratives. Platform rules further structure both design and reception: saturated colors, symmetrical compositions, and immersive scales align with the visual grammars that circulate best on social media. The exhibition itself seems to anticipate these grammars—producing photogenic, shareable scenes that reinforce its algorithmic visibility.

As these visual routines stabilize, they accelerate. A particular selfie angle in the lantern room, now globally recognizable, exemplifies algorithmic acceleration: a spatial motif replicated endlessly across feeds, turning a single installation into a worldwide visual shorthand. The cultural logics of social media—feedback loops between online visibility and physical attendance, self-curation through posting, and the pursuit of virality—intensify the hybrid condition. The platform becomes not an afterimage of the exhibition but a constitutive site of it: as central to its existence as the museum's galleries.

Mobile territories. These overlapping layers give rise to what I define as mobile territories—affective, algorithmically mediated formations that emerge through the circulation of digital attention. While they do not correspond to fixed locations, they exhibit recognizable spatial coherence: clusters of posts, hashtags, and images that repeatedly assemble around specific exhibitions, venues, or aesthetic conventions. In contrast to the openness of networks, mobile territories represent the territorialization of visibility—zones of temporary stabilization within the flux of hybrid space. They are dynamic but bounded, sustained through repetition and collective recognition rather than administrative boundaries.

Hyper Hybrid Art Places At the extreme of this process lie what I term Hyper Hybrid Art Places—venues where physical attendance and digital circulation reinforce each other in recursive cycles of attention. These sites are not simply popular; they are algorithmically amplified, producing visibility far beyond what their visitor numbers alone would predict. In them, the dynamics of the hybrid condition reach a self-reinforcing acceleration, in which visibility becomes both the product and driver of spatial experience. Later chapters return to this concept empirically, examining how such amplification can be observed through data correlations between visitor numbers and media production.

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5. Studying Hybrid Art Space: Methods and Case

The previous chapters have developed Hybrid Space as a socio-spatial condition (Chapter 3) and introduced Hybrid Art Space as a conceptual lens to understand how art, space, and platforms intersect (Chapter 4). Yet conceptual clarity is only part of the task: Hybrid Art Spaces are lived, designed, and contested in practice, and their study demands empirical methods. This chapter outlines how I empirically study Hybrid Art Spaces, presents the methodological framework, and uses Singapore as a case study.

5.1 How to Study Hybrid Space

Studying Hybrid Space means studying relations, not layers. The task is not to separate physical and digital domains, but to observe how they are co-produced in practice—through spacing and synthesis across embodied presence, interfaces, and imaginaries. This requires methods that are:

- + **Multi-scalar**, able to capture both the micro-level (an Instagram post, a visitor's path through a gallery) and the macro-level (urban clusters, mobile territories).
- + **Multi-modal**, drawing on text, images, geolocated data, institutional archives, and on-site observations.
- + **Responsive**, attuned to the rapidly shifting platform environment, where APIs, metrics, and affordances are constantly in flux.

Social media data are particularly significant, not as transparent mirrors of reality but as traces of practice, fragments of how people perform, value, and negotiate art in hybrid conditions. My approach takes these traces seriously as indicators of spatial knowledge, while remaining critical of their biases (e.g., skewed toward the young, urban, and visually literate).

5.2 Singapore as a Case Study

When Singapore became independent in 1965, culture and the arts were far from political priorities. The young nation was preoccupied with housing, employment, and survival. The shift began only in the late 1980s, when the government began recognizing culture as a nation-building tool.

The turning point came in 1989 with the *Report of the Advisory Council on Culture and the Arts* (ACCA). The report proposed that culture could strengthen national identity, foster social cohesion, and even attract tourism. What Singapore lacked, it argued, were the spaces and structures to make this vision real. Its recommendations triggered a new phase of institution-building: the expansion of the National Museum, the construction of new facilities for the National Library, and the launch of the Arts Housing Scheme (National Art Council 2010), which offered artists and associations state-owned buildings—often historic shophouses—to convert into studios and small cultural centers.

The early 2000s marked a second wave. In 2001, the government launched the *Renaissance City Plan* (RCP)—the first of three successive blueprints (2001, 2005, 2008) (MITA, 2001; 2005, National Art Council 2008) that together invested over S\$90 million in culture. The RCP explicitly linked culture to economic growth, creative industries, and global visibility. It called for a balance between “hardware” and “software”: not only building museums, theatres, and archives but also cultivating audiences, talent, and entrepreneurial ecosystems. The idea of “creative city” (Landry 2006) emerged: districts where art, commerce, and lifestyle would intertwine to enhance urban life.

By 2012, a new paradigm had taken shape. *The Arts and Culture Strategic Review* (ACSR) (National Art Council 2012) shifted attention from state funding to private philanthropy and market-driven sustainability. Art was no longer confined to institutional clusters but began to permeate malls, public spaces, and the city center. *The Public Art Trust* (2014) (National Art

Council 2020) expanded this vision, commissioning art for everyday environments and encouraging the private sector to embed creativity into commercial developments, exemplified by the ION Art Gallery, built within a shopping complex on Orchard Road.

These national frameworks—ACCA, RCP, ACSR—set the strategic tone. At the spatial level, the Urban Redevelopment Authority (URA) translated them into master plans and conservation strategies. The 1986 *Conservation Master Plan* (National Library Board 2014) safeguarded heritage districts; the 1988 *Civic and Cultural District Plan* reimagined the downtown as an accessible cultural corridor (Urban Redevelopment Authority 1988); and the 1991 *Culture Master Plan* proposed a dual system: half of Singapore’s cultural facilities centralized in the core, the rest distributed across suburban centers. Later, the 1997 *Museum Development Guide Plan* (Urban Redevelopment Authority 1997) fine-tuned this approach, envisioning a pedestrian-friendly cultural landscape.

Alongside these masterplans, the *Arts Housing Scheme* created visible “arts belts” across the city—Waterloo Street, Chinatown, and Little India—where state-owned buildings were repurposed to host studios, galleries, and associations. Over time, these districts became laboratories for cultural regeneration, but also sites of tension: gentrification, rising rents, and limited engagement with local communities diluted their initial promise.

In 2010, the *Framework for Art Spaces* introduced a more differentiated approach. Larger art societies were placed in central facilities, while smaller, shared clusters emerged in Goodman Arts Center and Aliwal Arts Center, designed for collaboration and cross-pollination. Together, these frameworks transformed Singapore’s urban landscape, producing an archipelago of cultural infrastructures that would define the city’s image in the decades to come.

A complex governance system supported this evolution. A new Ministry of Information and the Arts was established in 1990, later split into the Ministry of Culture, Community and Youth (MCCY) and the Ministry of Communications and Information (MCI), separating the domains of culture and creative industries. Beneath them, a network of statutory boards—the National Arts Council, National Heritage Board, National Library Board, Singapore Tourism Board, Design Singapore Council, and Infocomm Media Development Authority—coordinated the policies, often through joint initiatives.

By the mid-2010s, Singapore had become a city dense with cultural infrastructure and activity. However, the model's contradictions also became clear. Scholars described the city's cultural sphere as a “golden cage”: nurtured by generous public support but constrained by tight regulation and limited artistic autonomy (Said 2017). While Singapore's global reputation as a creative hub grew, critical voices noted how state-led cultural production risked taming the spontaneity and dissent that often drive artistic innovation.

In 2015, Singapore's designation as a UNESCO *Creative City of Design* symbolized the culmination of these efforts, a city where cultural policy, urban planning, and technological modernity converge. However, beneath the polished image lies a more complex narrative: a decades-long experiment in engineering culture as infrastructure, where art is both a civic instrument and a mirror of the nation's evolving identity.

Table 1. A timeline of cultural planning in Singapore, including the main plans, the establishment of different art-related governance boards, the construction of art-related infrastructures, the establishment of platforms to support culture and art, and the education. Tomarchio (2021).

YEAR	PLAN	YEAR FOUNDED	INFRASTRUC- TURE	EVENT/PRIZE	EDUCATION
before		Ministry of Culture, Community and Youth			Nanyang Academy of Fine Arts
1938				Singapore Festival of Arts (biennial)	
1964		Singapore Tourism Board			
1979				Cultural Medallion	
1983				Patron of the Arts	
1984					Lasalle College of the Arts
1985	Arts Housing Scheme (AHS)				
1986	Conservation Master Plan				
1988	Master Plan of the Civic and Cultural District				
1989	Report on Advisory Council on Culture and the Arts (ACCA)				
1990		The Ministry of Information and the Arts (MITA)			
1991	Culture Master Plan	National Arts Council		Singapore Writers Festival	
1992				Young Artist Award	
1993		National Heritage Board	One-Two-Six Cairnhill Arts Centre	Arts Education Programme	
1995		National Library Board			
1996					
1997	Museum Development Guide Plan		Telok Studios		

YEAR	PLAN	YEAR FOUNDED	INFRASTRUCTURE	EVENT/PRIZE	EDUCATION
1998	Creative Singapore: A Renaissance Nation in the Knowledge Age				
1999				Singapore Arts Festival (annual)	
2001	The Renaissance City Plan I (RCPI)				Yong Siew Toh Conservatory of Music
2002	Creative Industries Development Strategy: Propelling Singapore's Creative Economy	Arts House Limited under NAC	Esplanade		
2003	RCPI/ Community/Sports Facilities Scheme (CSFS)	Design Singapore Council			
2004			The Arts House		
2005	The Renaissance City Plan II (RCPII)		New National Library Building /Drama Centre/	Singapore Seasons, Singapore Arts Show	
2006				Singapore Biennale	
2007		Drama Centre			
2008	The Renaissance City Plan III (RCPIII)				School of the Arts
2009					
2010	Framework for the Arts Spaces				
2011			Goodman Arts Centre, Aliwal Arts Centre		
2012	Report on Art and Culture Strategic Review	Ministry of Culture Community and Youth	Gillman Barracks	Art Reach	
2013			Closing of Telok Ayer Performing Arts Centre		
2014	Master Plan				
2015			National Gallery Singapore		Culture Academy Singapore
2017			Drama Centre/ new Victoria Theatre and Concert Hall		
2018	Our SG Arts Plan				

In parallel, Singapore has been internationally recognized as a leader in digital innovation. Since the launch of the *Smart Nation agenda* in 2014, the state has rolled out a nationwide broadband network, a digital twin of the island for planning purposes, and a range of participatory e-government platforms. In Singapore, 88.2% of the total population (5.16 million people) maintains active social media accounts, and 97% of social media use occurs on mobile devices, making the city-state one of the most digitally connected in the world. Smartphone ownership is also nearly universal, reaching 97% of households (Kemp 2025). This infrastructural density, data networks, sensor environments, and mobile-first habits create fertile ground for the study of hybridization.

The convergence of these two trajectories—cultural ambition and digital infrastructure—has produced what I call a “smart cultural nexus” (Richthofen and Tomarchio 2018), a network of people working at the infrastructure of technologies and creative fields.

Singapore is not presented here as a universal model. A state-led governance structure profoundly shapes its arts ecosystem, and its cultural scene has often been critiqued as a “golden cage” of subsidies and regulation. However, precisely because of this, the dynamics of Hybrid Art Space become more visible: cultural infrastructures are concentrated, digital adoption is near-total, and state strategies make the intersections of art, media, and urban planning unusually legible. In this sense, Singapore is best understood as a laboratory of hybridization. In this dense urban environment, the interplay between physical venues and online publics is evident, generating insights that resonate beyond the island itself.

Studying Singapore, then, is less about extracting a model to be emulated and more about working within this laboratory of hybridization to observe how Hybrid Art Spaces take shape. In the following sections, I introduce the methodological tools developed for this purpose: typologies that capture how

art venues manifest hybrid identities, and maps that trace the digital trajectories through which publics, places, and territories emerge. These instruments allow us to move from the broad contours of Singapore's smart cultural nexus to a fine-grained analysis of how hybrid art spaces are produced and circulated in practice.

5.3 Research Design

Singapore, as one of the world's most digitally connected urban environments, provides an ideal testing ground for investigating how art spaces circulate across both physical and networked publics. The city's dense institutional landscape, high smartphone penetration, and policy emphasis on digital innovation create conditions where spatial, social, and media infrastructures converge. This convergence makes Singapore not only an empirical case but also a model for understanding how hybrid cultural formations emerge within data-intensive urban regimes.

Building on this context, the empirical investigation adopts an approach grounded in cultural analytics (Manovich 2007; 2017), a methodological paradigm that applies computational and visual analysis to large-scale cultural data. Rather than treating social media as anecdotal evidence or informal audience feedback, this approach conceives it as a cultural dataset: a record of how institutions, publics, and platforms co-produce visibility, meaning, and value within hybrid media ecologies. In this sense, the analysis is not about measuring popularity or sentiment but about mapping the media representation of art places.

The study draws upon three complementary data streams and approaches that capture different dimensions of this interaction:

- **Instagram**, the primary dataset, tracing how visitors photograph, tag, and share encounters with art and architecture. These images reveal recurring

intersections between art, people, and spatial settings, which are further analyzed through clustering and typological synthesis.

- + **Twitter** (in 2025 called X) – the secondary dataset, used to map textual and temporal traces of cultural discourse. This layer provides insight into the spatial and rhythmic dimensions of hybrid activity, showing how attention concentrates across venues and time.

- + **Synthetic visualizations**, including self-organizing maps (SOMs), hue-saturation mappings, and GIS-based cartographies. These combine computational and spatial analysis to transform heterogeneous data into comparative and interpretable visual structures. GIS mapping, in particular, grounds the otherwise abstract flows of digital attention in their urban coordinates, revealing where clusters of media activity overlap with physical infrastructures, cultural districts, and transport networks.

To ensure interpretive depth and empirical grounding, this computational framework was validated through qualitative inquiry. Interviews and focus groups with curators, planners, and cultural practitioners (n = 17) were conducted to evaluate whether the patterns identified through social media data resonated with professional experience (Tomarchio et al. 2020). These practitioners confirmed the analytical relevance of the visualizations and provided interpretive nuance regarding institutional priorities and audience behavior (Tomarchio et al. 2020). This triangulation between data-driven analysis and expert reflection strengthens the validity of the research design and grounds the concept of Hybrid Art Space within lived curatorial and spatial practice.

5.4 Instagram Data

The first dataset consists of Instagram images, which typically include photographs or short videos accompanied by captions, hashtags, and location metadata. Locations may be automatically embedded or added manually, offering a partial but valuable proxy for spatial reference.

Through this exploration of Instagram data, I developed what I call the **fundamentals of representation**—patterns linking the physical characteristics of venues to their media representation—and **typologies of Hybrid Art Spaces** that capture not only their spatial form but also their media identities. In architectural discourse, typology has long been used to describe recurring patterns of spatial organization (Moneo 1978). Here, I extend this approach into the digital domain: rather than focusing solely on the relations of rooms, façades, and functions, I investigate how venues acquire recognizable *types* through the images, hashtags, and posts that circulate them on social media. The objective is to provide curators, designers, and cultural planners with a framework for understanding how physical settings and digital practices co-constitute the identity of art spaces.

To translate these conceptual questions into empirical form, the study pursued four methodological objectives:

- ✦ **Capture media identities.** Establish art venues as hybrid territories defined by both their built infrastructure and the social media traces that frame them.
- ✦ **Relate content and aesthetics.** Examine not only what appears in images (art, people, architecture, practical items) but also their visual properties (color palette, saturation, luminosity, compositional style).

- + **Identify recurrent patterns.** Use unsupervised clustering methods to reveal the fundamentals of representation—recurring pairings of content and aesthetics that underpin media identities.
- + **Translate into typologies.** Develop heuristic categories that are not fixed, but that help practitioners and researchers reflect on how hybrid conditions shape cultural visibility and meaning.

The dataset consists of Instagram images tagged with five major Singaporean art venues—the ArtScience Museum, National Gallery Singapore, Asian Civilizations Museum, Center for Contemporary Art, and The Substation—complemented by a comparative city-wide sample of 61 additional venues. In total, over 3,000 images were collected via an API-based tool (4K Stogram), ensuring comparability across cases. For each of the five museums, a fixed number of 500 images was retrieved, representing variable time spans (from 20 days to four months) depending on their media activity. Only publicly available images were included; videos, stories, and user metadata were excluded to focus exclusively on the spatial and visual content of posts.

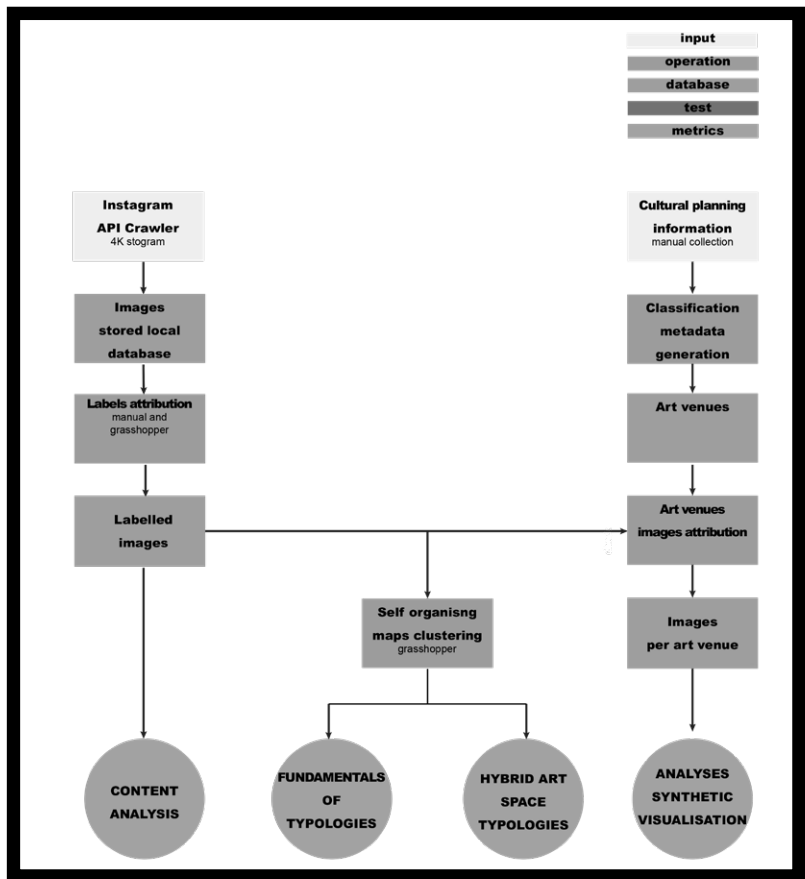


Figure 6. Overview of the methodology, indicating data sources, primary operations, and results. Diagram by the author, originally published in Tomarchio (2021, 2023a).

The analysis proceeded in four steps:

- + Manual labeling of image content.** Each image was categorized into content types—Art, People, Architecture, and Practical Items—and their intersections (Art+People, Art+Architecture, etc.), distinguishing whether users emphasized artworks, social surroundings, or built environments.

+ Automated extraction of visual properties.

Using Grasshopper within Rhino3D, I computed average color values (RGB), hue, saturation, and brightness for each image. These attributes enabled the analysis of the “visual language” of Instagram representations, following Manovich’s notion of cultural analytics (Manovich 2020), in which compositional patterns and color palettes reflect systematic collective choices.

+ Data clustering with Self-Organizing

Maps (SOMs). SOMs—an unsupervised neural-network algorithm—were used to combine content and aesthetic attributes into two-dimensional grids that visualize affinities among images. This method enabled qualitative interpretation of recurring visual grammars and the differentiation of media identities across venues.

+ Typological synthesis. The resulting clusters were read comparatively to construct typologies of Hybrid Art Spaces.

Table 2. List of labels for image content. Tomarchio (2021, 2023a).

Art	Art+People	People	People + Archi- tecture	Architecture	Practical Items	Architecture + Art
painting/photo- graphy	people +paintings	selfie (front)	outdoor (land- scape) + people	outdoor (land- scape)	food	indoor (stairs, corridors, dome) + art
sculpture	people + books	selfie (back)	outdoor (build- ing) + people	outdoor (build- ing)	tickets	outdoor (stairs, corridors, dome) + art
books	people + sculpture	selfie (part of the body, e.g., feet)	indoor (stairs, corridors, dome) + people	indoor (stairs, corridors, dome)	retail	immersive art installations
screens	people + screens	2 peo- ple or more	indoor (furni- ture) + people	indoor (furni- ture)	posters	
other art	people + tradition- al art	groups (posing or natu- ral)	other people + arch	other arch	other practical items	
traditional art (jewels, arte- facts, clothes)	people + light	groups (party)				
light instal- lation	performance + peo- ple	groups				
performance (music, the- atre)	other art + people	other people				
other art						

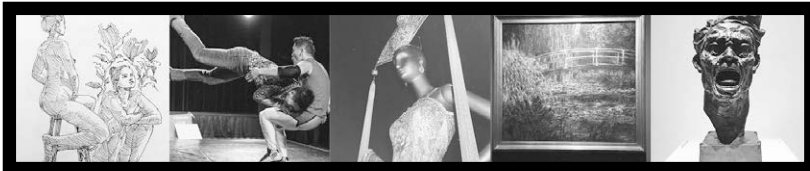


Figure 7. Examples of pictures belonging to the category “Art”. Tomarchio (2021, 2023a).



Figure 8. Examples of pictures belonging to the category “Art + People”. Tomarchio (2021, 2023a).



Figure 9. Examples of pictures belonging to the category “People”. Tomarchio (2021, 2023a).



Figure 10. Examples of pictures belonging to the category “Architecture + People”. Tomarchio (2021, 2023a).



Figure 11. Examples of pictures belonging to the category “Architecture”. Tomarchio (2021, 2023a).



Figure 12. Examples of pictures belonging to the category “Practical Items”.Tomarchio (2021, 2023a).

This multimodal methodology mirrors architectural practice: just as diagrams of building typologies offer designers a language for comparison and invention, **hybrid media typologies** function as heuristic tools for curators, planners, and scholars. They provide a framework for understanding how digital and physical configurations co-constitute institutional identity and for designing with, or against, the logics of visibility, participation, and algorithmic amplification.

Ethical and Reproducibility Considerations

All data analyzed in this study are derived from publicly available Instagram posts retrieved via official API endpoints, in compliance with the platform’s terms of service. No personal identifiers, usernames, or comment data were collected, stored, or analyzed. The focus remains strictly on visual content and metadata at the aggregate level, ensuring that individual users cannot be identified.

The workflow was designed for transparency and reproducibility. Each processing step—from data retrieval and manual labeling to feature extraction and SOM clustering—was documented through version-controlled scripts. Data normalization parameters, SOM grid topology, and iteration counts were standardized across all venues to allow comparative interpretation. While privacy restrictions prevent the redistribution of raw images, all derived datasets (metadata and feature matrices), Grasshopper definitions, and Python clustering scripts can be made available for scholarly replication upon request.

5.5 Twitter Data

The second methodological contribution of this study extends the empirical analysis of Hybrid Art Spaces to text-based social media (Twitter). While the Instagram analysis revealed how specific venues acquire distinctive media identities, the Twitter study investigates how those identities circulate and interact across the urban fabric. The goal is to make visible the spatial logics and temporal rhythms through which cultural activity, visibility, and hybridization emerge at the scale of the city. To pursue this goal, five methodological objectives guide the analysis:

- + **Spatialize media traces.** Translate text-based social data into spatial form, positioning art-related tweets in relation to specific venues, districts, and cultural infrastructures.
- + **Capture temporal rhythms.** Examine how media activity varies across days, weeks, and months, making visible both recurring routines and festival-driven peaks.
- + **Detect hybrid presences.** Identify sites that are not officially recognized as art venues but that attract significant cultural attention online, called emergent or informal cultural spaces.
- + **Explain amplification.** Analyze why specific venues generate disproportionately high levels of digital attention (Hyper Hybrid Art Spaces) by linking visibility to institutional, spatial, and affective characteristics.

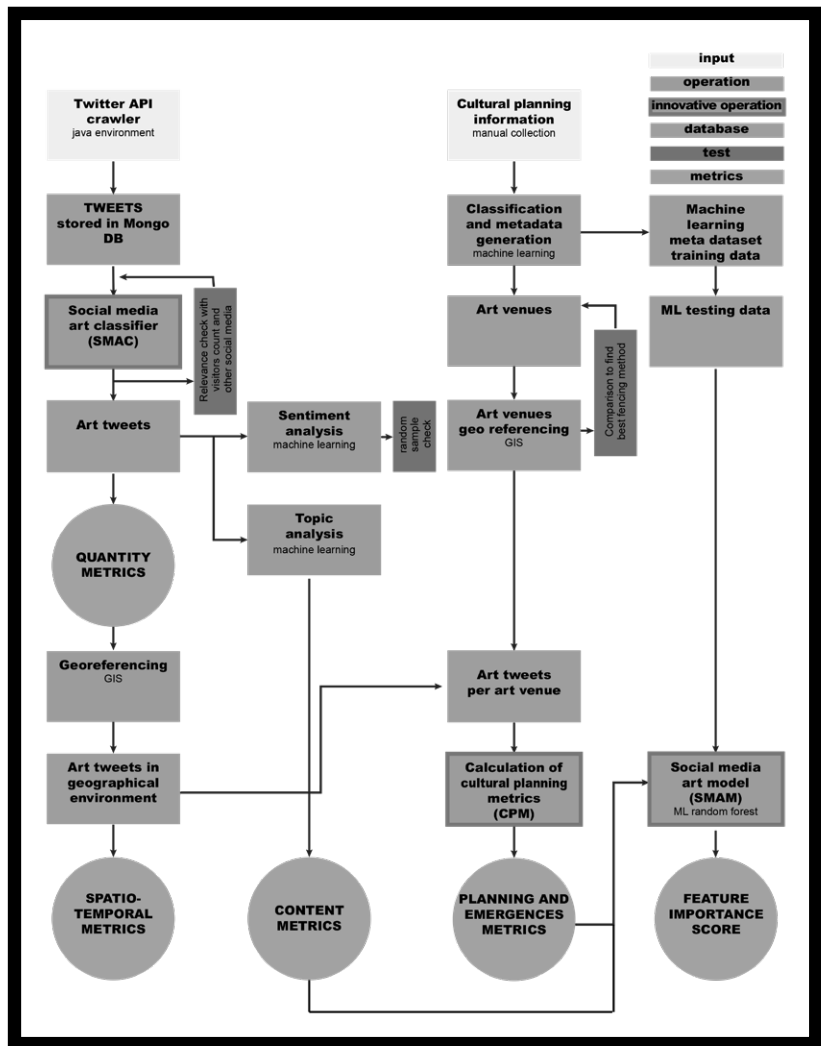


Figure 13. This flowchart provides an overview of the steps of the methodology and lists its key innovations in terms of operations (purple boxes with a red stroke) and the five main results (orange circles). Diagram by the author, originally published in Tomarchio (2021, 2023b).

Dataset and Data Processing

The dataset consists of 8,035,207 geolocated tweets collected from the Singapore metropolitan region between April 2016 and December 2017, retrieved through the official Twitter Streaming API.

To isolate art-related content, I developed a Social Media Art Classifier (SMAC) that combines keyword filtering with supervised machine learning.

- **Keyword filtering.** A vocabulary of 175 terms related to art, culture, and institutions (e.g., gallery, exhibition, performance, museum) was compiled from the National Arts Council (NAC) taxonomy, curatorial databases, and prior research on cultural analytics.

- **Machine-learning validation.** A Deep Neural Network (DNN) was trained on a manually annotated corpus of 8,000 tweets, achieving 92% classification accuracy in distinguishing art-related posts from general urban chatter.

After classification, the corpus contained 26,393 art-related tweets, which were further filtered for linguistic and spatial consistency. Duplicate posts, retweets, non-English messages, and automated accounts (identified through fixed coordinates or timestamps) were removed. Each tweet was stored in JSON format in a MongoDB database, retaining text, timestamp, geolocation, and engagement metadata (likes and retweets).

Analytical Steps

+ **Geospatial mapping and venue attribution:**

All tweets were imported into QGIS and spatially matched to a database of 165 cultural venues, compiled from NAC, the Urban Redevelopment Authority (URA) and Google Maps. Tweets located within a 20-meter polygon buffer of a venue were attributed to that venue. Unmatched tweets were clustered using kernel density estimation to detect emergent cultural sites, locations not officially recognized but exhibiting recurrent art-related activity.

+ **Venue attributes and planning metrics:**

For each venue, eleven attributes were recorded: ownership (public/private), funding status, permanence (temporary/permanent), building type, accessibility, heritage value, clustering (number of venues within 200 m), visitor capacity, thematic focus, online activity rate, and visibility (photo frequency on Google/Instagram). These variables formed the explanatory set for subsequent modeling.

+ **Quantitative classification.** Each venue was classified according to the relationship between its planning presence and social media activity:

+ *Confirmation*: officially planned venues exhibiting significant online activity.

+ *Negation*: officially planned venues with little or no visibility.

+ *Emergence*: unplanned or informal sites showing high and sustained activity. Thresholds were defined through nested mean classification: venues with tweet density above mean + 1σ were coded as “confirmations” and those above mean + 2σ as “hyper-hybrid.”.

Table 3. Attributes collected for each art venue, with possible values, description, and reference literature. Tomarchio (2021, 2023b).

Feature	Feature Description	Feature options	Feature variable
Type of process	The type of process taking place in the venue or space. It derives from Type of Venue, and aggregates different Type of Venue in macro-categories.	Mixed, Production, Consumption, Education	Categorical variable
Type of art	The main type of art featured in the venues.	All, Design, Theatre/Dance, Traditional Art, Visual Art	Categorical variable
Type of venue	The type of art venues	Art service, Gallery, Studio, Stage, Multipurpose, Museum, Organisation/Institution	Categorical variable
Permanent/Temporary	Indicates if the location is permanently dedicated to art, or if it becomes an art venue only for discrete spans of time (e.g., fairs)	Permanent Temporary	Categorical variable
Art venues within 500m	An indicator to gauge to what extent a venue is part of a cluster of venues (number of other venues within 500 m)	Count	Numerical variable
Heritage building	Indicates whether the art venues were hosted in a heritage building.	True / false	Boolean variable
Subsidy plan	Specifies either what plan offered by the National Arts Council or which the name of the board (if different from the National Arts Council, like the Urban Redevelopment Authority) supports the venues.	Arts Centre Scheme, Arts Housing Scheme, Arts for All grant, Community/Sports Facilities Scheme, Framework for Arts Spaces, NAC arts venues, other, none	Categorical variable
Spatial cluster	The art cluster it is part of cluster areas as defined and planned by Singapore planning department (URA).	Chinatown, Central Civic District, Gillman Barracks, Little India, Singapore River, Waterloo, none	Categorical variable
Outdoor/Indoor	Indicates whether the art venue is inside a building, or outdoor.	Outdoor, Indoor	Categorical variable

- + **Temporal and discursive analysis.** Tweets were aggregated by hour, day, week, and month to construct temporal signatures for each venue and district, revealing both routine rhythms and festival-driven peaks.
- + **Sentiment analysis** (lexicon-based, -1 to +1) captured affective tone, while topic modeling using Latent Dirichlet Allocation (LDA) extracted five recurrent themes (events and openings, education, nightlife, institutional promotion, heritage).

- + Topic diversity index** The entropy of topic proportions was used to derive a topic diversity index that quantifies discursive richness at each venue.
- + Machine learning model.** To explain why some venues achieved exceptional visibility, a Random Forest classifier predicted confirmation, negation, and hyper-hybrid categories based on the eleven venue attributes. The model achieved 75.6% classification accuracy, highlighting accessibility, clustering, and visuality as the strongest predictors of amplification.

Table 4. Features analyzed in the social media art model for each venue. Tomarchio (2021, 2023b).

<u>Arte Venue Feature</u>	<u>Derived From</u>
Topic Diversity	tweets (average value of the venue)
Sentiment Analysis	tweets (average value of the venue)
Art Venues within 500 m	derived from GIS map
Subsidy Plan	cultural planning information
Type of Venue	cultural planning information
Spatial Cluster	derived from GIS map + cultural planning information
Type of Art	cultural planning information
Type of Action	cultural planning information
Heritage Building	cultural planning information
Permanent/Temporary	cultural planning information
Indoor/Outdoor	derived from GIS map

Quantitative Classification and District Metrics

To assess how social media activity corresponds with cultural planning in Singapore, I developed quantitative metrics at two scales: **venue-level** and **district-level**, using the categorized dataset of art-related tweets.

Venue-Level Metrics: Confirmation, Negation, and Emergence. The distribution of tweets among art venues was highly skewed: 5% of venues generated approximately 68% of total art-related tweets. To normalize this imbalance, I applied a nested mean classification, defining four threshold categories of tweet count:

This yields four types of venue dynamics:

- ✚ *Negations*: officially planned venues showing little or no digital activity;
- ✚ *Confirmations*: venues where official recognition aligns with strong online visibility;
- ✚ *Emergences*: unlisted venues exhibiting high and sustained art-related activity;
- ✚ *Hyper-confirmations (Hyper-hybrids)*: venues generating exceptionally high tweet-to-visitor ratios, up to 70× the baseline, indicating algorithmic amplification and feedback loops between physical attendance and digital visibility.

Formally, hyper-hybridity is defined when:

$$\text{Posts/Visitors} > \beta$$

β is the baseline proportionality coefficient derived from the mean relationship between visitor numbers and tweet volume.

Table 5. Data classification, and thresholds of confirmations, negations, and emergences, with a count of elements for each class. Tomarchio (2021, 2023b).

From	To	Count	Classe name	Class name	Count
N of Tweets	N of Tweets	N of Venues			N of Venues
1	24	102	Negations	-	
25	117	61	Confirmation 1	-	
118	434	7	Confirmation 2	Emergence	34
435	4340	41	Confirmation 3 (Hyper)	Emergence	1

District-Level Metrics: To evaluate hybrid cultural activity across Singapore's planning districts, I aggregated venue data to compute two district-level indicators:

✦ *Planning Confirmation (PC)*: a measure of digital cultural planning success: $PC = (C - N) / T$. Where C and N represent the number of confirmations and negations in a district, and the total number of planned venues.

The metric ranges from -1 (complete negation) to +1 (complete confirmation), indicating the share of officially listed venues that generate visible Twitter activity.

✦ *Emergence Intensity (EI)*: the relative importance of emergent sites: $EI = E / A$. Where E is the number of art-related tweets associated with emergent sites, and the total number of art-related tweets in the district.

EI thus measures the extent to which spontaneous cultural activity contributes to a district's overall media visibility.

These metrics enable comparison of planned and emergent cultural geographies within a single analytical framework. At the district scale, the PC and EI indexes allow planners and researchers to identify where hybrid activity concentrates, stagnates, and where new territories of visibility arise beyond formal policy frameworks.

Ethical and Reproducibility Considerations

All tweets used in this study were publicly accessible through the Twitter API and analyzed in compliance with the platform's terms of service. No usernames, profile data, or direct identifiers were stored or published. The dataset was aggregated at the venue level, ensuring that no individual user activity can be inferred.

The entire workflow—from data collection and cleaning to geospatial mapping, sentiment analysis, and model training—was implemented in Python (pandas, scikit-learn) and QGIS, with version-controlled notebooks ensuring reproducibility. Scripts for the Social Media Art Classifier (SMAC) and the Spatial Media Analysis Model (SMAM) are available for academic replication upon request.

5.6 Empirical Validation and Practitioner Perspectives

While the primary focus of this book lies on computational and visual analyses, the methodological framework was complemented by a qualitative validation phase conducted during the doctoral research. This section briefly summarizes the work to indicate how empirical findings were grounded in practitioners' perspectives, even though the detailed results are not discussed in this volume (Tomarchio et al. 2020).

The qualitative validation sought to assess whether the analytical categories and visualizations developed from social media data resonated with the lived experience of curators, artists, planners, and policymakers working in Singapore's cultural landscape. Two rounds of qualitative inquiry were conducted: (1) a focus group with six professionals representing major cultural institutions, and (2) a structured online survey with eleven additional participants across independent and governmental sectors. The participants were invited to evaluate visual maps and typological diagrams derived from the Instagram and Twitter analyses, and to comment on their accuracy, interpretability, and usefulness for understanding contemporary art spaces.

Across both phases, responses demonstrated a high degree of recognition of the phenomena identified through data analysis. The category of “Instagrammability,” for instance, was recognized by curators as both an opportunity for accessibility

and a constraint that shapes exhibition design. Planners highlighted the potential of cultural mappings for cultural policy and city branding, while independent artists expressed ambivalence toward algorithmic visibility as a form of aesthetic and economic pressure.

These dialogues confirmed that the notion of Hybrid Art Space reflects the operational reality of contemporary institutions in Singapore. The triangulation between computational findings and practitioners' perspectives supports the interpretive validity of the analytical categories ("fundamentals of representation," "typologies," "hyper-hybrid venues") and underscores their relevance beyond data-driven reasoning.

5.7 Conclusion and Limitations

The methods outlined in this chapter employ a mixed-methods approach to analyze hybrid art spaces through digital traces. The analyses demonstrate that social media data, when carefully collected, labeled, and visualized, can reveal structural dynamics that are otherwise difficult to observe: how publics, institutions, and algorithms co-produce visibility in the urban cultural sphere. However, the empirical findings presented in this book are limited to Singapore, a city-state with a distinctive combination of digital penetration, centralized cultural governance, and dense institutional infrastructure. Therefore, while the results offer insights that are likely indicative of broader global tendencies in mediatized urban culture, they cannot be assumed to hold universally. A comparative analysis across multiple urban contexts would be required to test the generalizability of these patterns. Further methodological refinement could strengthen future research in three directions:

- ✦ **Comparative scope:** Expanding the dataset to include other cities would allow identification of regional variations in hybrid logics and platform use.

✚ **Temporal depth:** Longitudinal data could reveal how hybrid configurations evolve as algorithms, institutions, and public habits change over longer time scales.

✚ **Integrated triangulation:** Future studies should combine computational mapping with ethnographic and curatorial inquiry to enable more symmetrical interpretations of hybrid practices. The present research design deliberately focuses on a single exemplary case to enhance analytical clarity. Singapore functions here as a laboratory of hybridity, where technological infrastructure, institutional experimentation, and social media saturation converge. The patterns observed should therefore be read as both specific to this context and suggestive of broader tendencies toward the algorithmic mediation of art, architecture, and public culture.

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6. Hybrid Art Places in Singapore: Platform Fundamentals, Negotiated Typologies, Hyper Hybridity

This chapter presents the results of empirical analyses on Hybrid Art Places in Singapore, primarily based on Instagram image datasets and supplemented by synthetic visualization tools. The findings are discussed to support the hypotheses in the previous chapters regarding the structural dynamics, grammar, and logic of hybrid space. First, the baseline distributions of Instagram images across five museums show how intersections of art, people, and architecture drive media production and reveal fundamental differences in how places are represented in social media. Second, media identities are surfaced through self-organizing maps, which uncover both recurring fundamentals of representation and typological variations across venues. Thirdly, the identification of hyper-hybrid places demonstrates where feedback loops, virality, and algorithmic acceleration concentrate, resulting in disproportionate levels of media visibility. Taken together, these results substantiate three structural conditions of Hybrid Art Space: platform rules as structuring agents, algorithmic acceleration (visible in the disproportionate outputs of hyper-hybrid venues), and hybrid negotiation (visible in the typological variation of media identities).

6.1 Cases (Singapore): Five Contrasting Venues

To ground the analysis, I focus on five museums in Singapore that span a range of scales, missions, and exhibitions. They provide a comparative cross-section of the city's cultural landscape and, at the same time, function as test cases for developing methods to analyze hybrid art spaces. In addition to the five museums, I collected data on all other art venues identified in Singapore's official cultural planning documents. This broader dataset, the *Singapore Collection*, serves as a control group against which the data from the five museums can be compared.

ArtScience Museum (ASM): A privately operated museum within the iconic Marina Bay Sands complex, designed by Moshe Safdie in the form of a lotus flower. The venue is internationally recognized for its digital and interactive exhibitions, such as the permanent teamLab installation. Its exhibition halls are primarily underground.

National Gallery Singapore (NG): Housed in two heritage buildings in the civic district, NG hosts one of the largest collections of Southeast Asian art. Its curatorial approach is eclectic, featuring major retrospectives, participatory installations, and didactic displays that coexist. The gallery strikes a balance between monumental architecture and varied exhibition formats.

Asian Civilizations Museum (ACM): Situated on the riverfront, the ACM showcases archaeological artifacts and material culture from across Asia. Its displays are largely object-centric and oriented toward heritage interpretation rather than immersion.

Center for Contemporary Art (CCA): Located within the Gillman Barracks cluster at the time of analysis (2016-2020), the CCA, now permanently closed, was affiliated with Nanyang Technological University and featured an exhibition center alongside artist residencies. On a smaller scale, it cultivated a networked identity tied to artist communities and educational programming.

The Substation: A historic independent arts centre located in a converted shophouse, long associated with experimental practices and community engagement. While its direction has shifted over time, it remains event-driven, hosting performances, talks, and grassroots cultural activities.

6.2 Baseline: What People Actually Post

The starting point for understanding hybrid art spaces is to ask a simple but crucial question: what do people actually post when they visit an art venue? Using the labeled Instagram dataset (500 images per museum, plus a comparative city sample, the Singapore collection, of 61 venues), I examined the distribution of content across seven categories: Art, People, Architecture, Practical Items, and their intersections (Art+People, People+Architecture, Art+Architecture). The images have been manually labeled, as described in the methodology outlined in Chapter 5.

Table 6. Distribution of the different content categories among the five museums. Tomarchio (2021, 2023a).

	National Gallery	Art Science Museum	The Substation	Asian Civilisations Museum	Centre for Contemporary Art	Control Group
Art	21 %	13 %	22%	33%	43 %	31 %
Art + People	23 %	62 %	13 %	11 %	11 %	16 %
People	6 %	2 %	32 %	24 %	16 %	21 %
People + Architecture	13 %	7 %	6 %	11 %	2 %	7 %
Architecture	12 %	9 %	7 %	12 %	3 %	15 %
Art + Architecture	16 %	4 %	2 %	2 %	6 %	2%
Practical Items	10 %	3 %	19 %	6 %	18 %	8%

Table 7. Distribution of content categories. “Alone” indicates stand-alone categories while “intersection” looks at the categories with more than one element. Tomarchio (2021, 2023a).

	NG	ASM	The Substation	ACM	CCA	Control Group
Alone	43 %	24 %	75 %	93 %	81 %	69 %
Intersection	57 %	73 %	25 %	7 %	19 %	23 %
Art	42 %	46 %	36 %	40 %	58 %	44 %
People	30 %	42 %	50%	39 %	30 %	34 %
Architecture	29 %	11 %	14 %	21 %	11 %	23 %

Two regularities appear consistently across the dataset. First, art itself dominates: in the majority of the venues, including the control group, the single largest share of images features artworks as isolated objects. This baseline holds for ACM (33% Art), CCA (43% Art), and the control group of 61 Singapore venues (31%). The museum visit continues to be framed primarily on social media through object-centered representation, extending long-standing traditions of visual documentation into the digital sphere. Second, intersections vary strongly by venue. Some institutions emphasize significant overlaps among art, people, and architecture, while others use stand-alone categories. For example:

✦ **ArtScience Museum (ASM):** 62% of images fall into *Art+People*, while stand-alone People or Architecture images are rare (2% and 9%, respectively). Although the architecture of the ASM is quite iconic and would, in theory, follow Instagrammability rules, this is not reflected in the image composition. The dark rooms, reflective surfaces, and responsive light fields of exhibitions such as *teamLab* installations create conditions where bodies and artworks are visually inseparable.

✦ **National Gallery Singapore (NG):** 23% of images are *Art+People*, alongside strong representations of Art and People as separate categories. Here, the curatorial design produces multiple affordances for compositing—immersive rooms, participatory prompts, and monumental architectural backdrops—so intersections occur through diverse rather than singular formats.

✦ **The Asian Civilizations Museum (ACM) and Center for Contemporary Art (CCA):** stand-alone categories dominate, with minimal intersections. ACM leans towards Art (33%) and People (24%), reflecting its object-focused displays.

CCA skews to Art (43%), which is interesting considering its event-based formats.

✚ **The Substation:** shows a different balance: 32% People and 19% Practical Items (e.g., posters, tickets). Here, the venue is represented less as a container of objects than as a social and informational node—a place where belonging is indexed through images of gatherings and signs rather than through art-people composites. These distributions point to a first structuring principle: what circulates online is patterned by the affordances of both the venue and the platform. Venues that invite people to position themselves within the image—whether before an immersive installation, a monumental façade, or a carefully staged threshold—create intersections that are highly legible on Instagram, while simultaneously enabling visitors to craft a personal, art-inflected media identity.

6.3 Fundamentals of Representation: Platform Rules as Structuring Agents

Looking beyond content categories, a second layer of analysis examines the aesthetic grammars through which art venues are represented on Instagram. By combining manual content labels with automated measures of visual properties (hue, saturation, luminosity, RGB balance), and clustering them using self-organizing maps (SOMs), it is possible to identify recurrent **fundamentals** that cut across venues. These are not venue-specific identities, but relatively stable attractors in the visual language of hybrid art spaces—patterns that reappear wherever certain curatorial or spatial conditions align with platform logics.

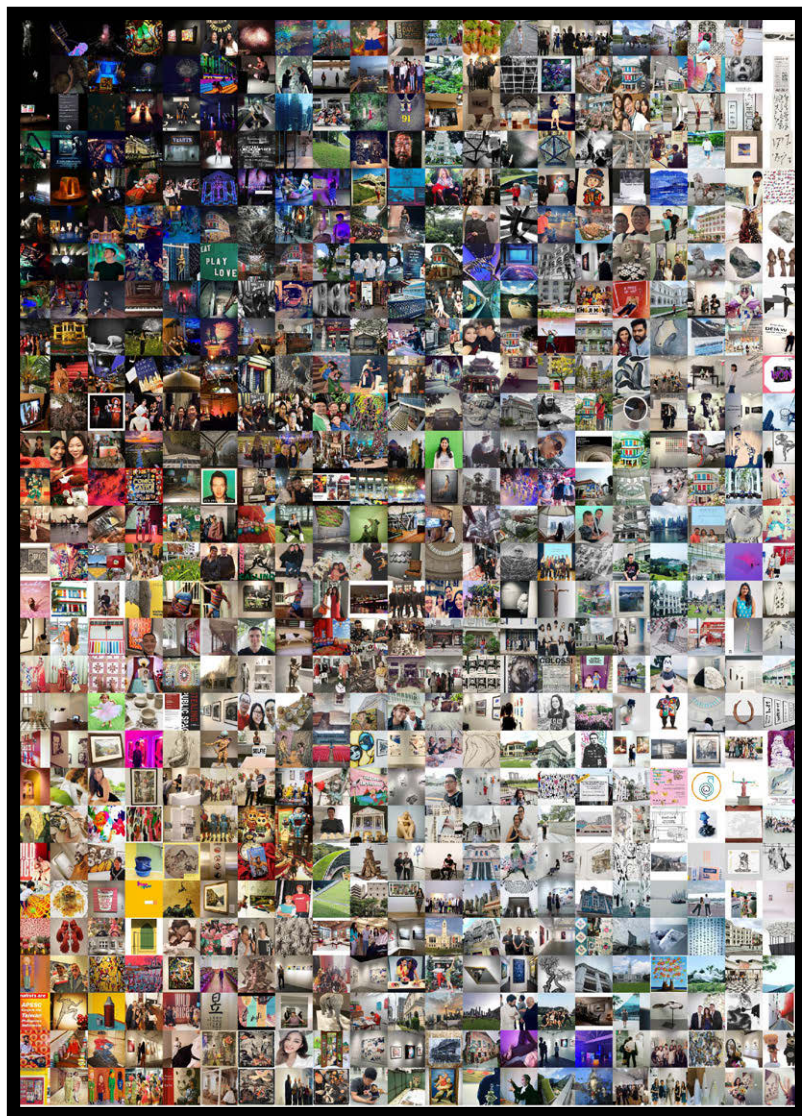


Figure 14. Self-organising map of images from different museums in singapore. It is possible to observe clusters where similar content also has similar visual properties. Diagram by the author. Originally published in Tomarchio (2021, 2023a).

✦ **White Box** | Characteristics: desaturated, high-key images; strong emphasis on objects alone; minimal human presence. Curatorial analog: the “white cube” gallery, where neutral walls serve as a backdrop for autonomous artworks.

✦ **Dark Immersive** | Characteristics: low-key palettes punctuated by luminous edges; silhouettes of bodies against light or projection fields; blurred boundaries between people and installation. Curatorial analog: the “black box” of performance and digital media, where darkness functions as an immersive frame.

✦ **Leisure Colourful** | Characteristics: saturated backgrounds in bright tones (yellows, pinks, neons); groups interacting playfully with artworks; emphasis on touch, movement, and collective participation. Curatorial analog: participatory or “experience-first” staging, where artworks double as playgrounds or backdrops.

These fundamentals demonstrate how platform rules act as structuring agents. Instagram’s algorithms do not simply amplify what exists; they shape what becomes visible and reproducible by privileging clean contrast, recognizable figures, and bright saturation. In turn, curators and designers increasingly stage environments that anticipate such grammars: minimalist galleries reinforce the White Box, digital immersive rooms align with Dark Immersive, and participatory installations fuel Leisure Colorful.

What emerges, therefore, is a feedback loop where aesthetic fundamentals circulate across venues, publics, and platforms. They condense into recognizable templates that make spaces *Instagrammable*, and in doing so, they influence both visitor behavior (how to pose, where to stand) and institutional choices (how to light, stage, or frame exhibitions).

In Singapore, all three fundamentals are present, though with different weights: galleries tilt towards White Box; large-scale immersive shows gravitate to Dark Immersive; and studios or pop-ups skew towards Leisure Colorful.

The fundamentals are not merely stylistic tendencies but structural anchors of hybrid art space, showing how the interplay of space, publics, and platform logics produces recurring visual languages that shape cultural visibility.

6.4 Typologies: How spatial arrangements are negotiated

Based on content analysis combined with automated analysis of visual properties, I also generated self-organizing maps (SOMs) for individual museums, enabling the identification of typologies of hybrid art places. These typologies capture the specific ways in which media identities are produced, and they highlight a crucial dimension of Hybrid Art Space: the fact that such identities are not fixed but negotiated. They emerge through the interplay of curatorial staging, visitor practices, and platform logics. The SOMs generated for each of the five Singaporean museums map how content categories (Art, People, Architecture, Practical Items) cluster together with aesthetic attributes such as hue, saturation, and luminosity. The resulting diagrams do not simply mirror curatorial intent; they provide a kind of digital fingerprint of how each venue circulates in the feed at a given moment. This fingerprint is dynamic, changing with new exhibitions and shifting publics, but it nonetheless offers a lens into the processes through which hybrid meanings are co-produced.

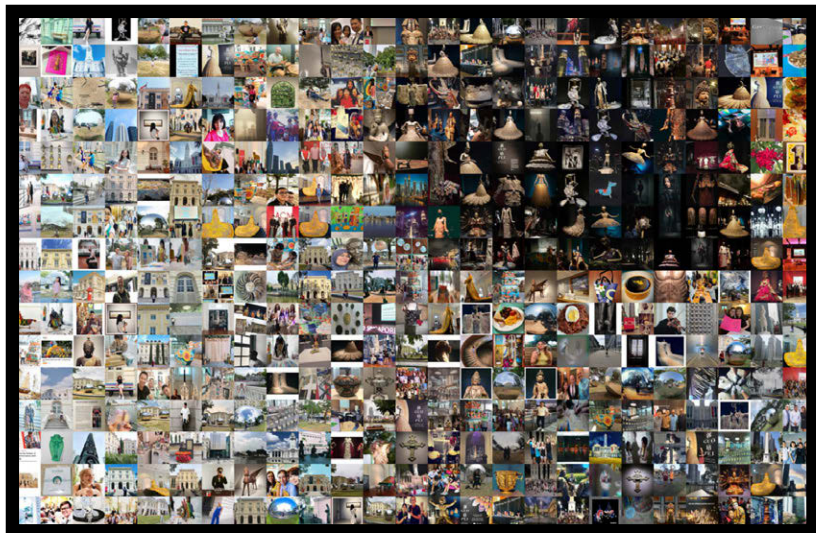


Figure 15. Self-organising map of the Asian civilisation museum. Diagram by the author. Originally published in Tomarchio (2021, 2023a).



Figure 16. Self-organising map of the Art Science Museum. Diagram by the author. Originally published in Tomarchio (2021, 2023a).

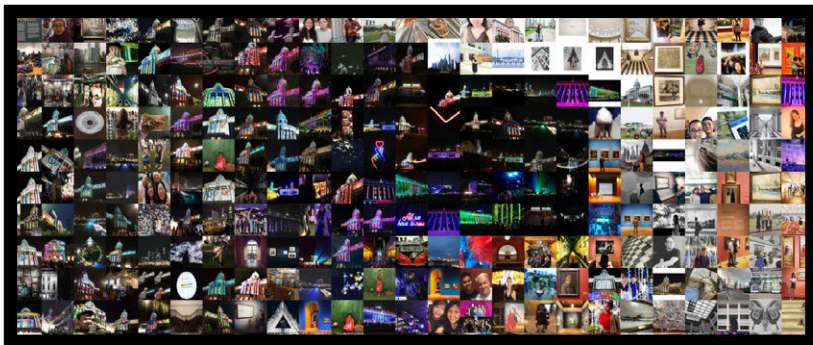


Figure 17. Self-organising map of the National Gallery. Diagram by the author. Originally published in Tomarchio (2021, 2023a).

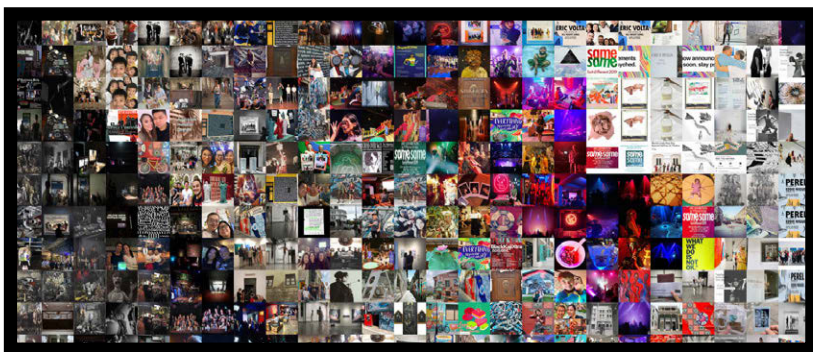


Figure 18. Self-organising map of The Substation. Diagram by the author. Originally published in Tomarchio (2021, 2023a).

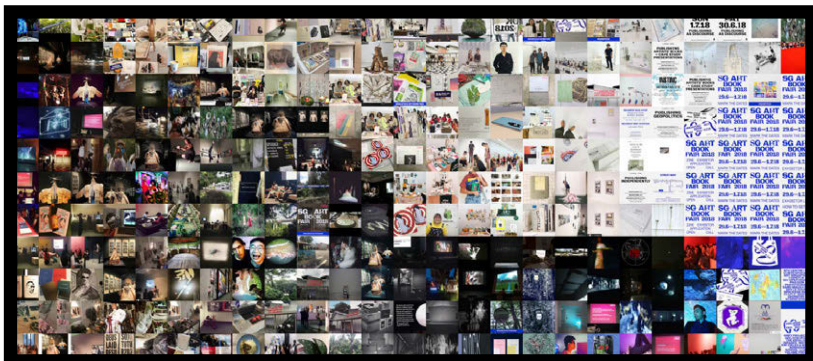


Figure 19. Self-organising map of the Centre for Contemporary Art. Diagram by the author. Originally published in Tomarchio (2021, 2023a).

One typology is that of the **immersive stage**, exemplified by the ArtScience Museum. Here, the SOM reveals a near collapse of the categories *Art + People*. Installations such as teamLab's *Future World* are designed to be entered, touched, and documented, so that the visitor's body becomes inseparable from the artwork. The dominant image is not of art as object, but of art as backdrop for self-insertion. Importantly, this is not a unilateral effect of curatorial choice. It is consolidated through visitor practices—posing, photographing, and sharing—and through platform amplification, as the museum itself recirculates user images. The identity of the ArtScience Museum as an “immersive stage” is therefore the outcome of a hybrid negotiation, co-authored across these different registers.

A second typology may be described as the **distributed museum**, a profile that characterizes institutions such as the National Gallery, the Asian Civilizations Museum, and the Center for Contemporary Art. In these cases, the SOMs show a plurality of clusters, with *Art*, *People*, and *Architecture* overlapping in diverse configurations. This reflects the heterogeneity of curatorial programs, ranging from heritage displays to participatory installations, as well as the multiplicity of visitor routines. Some visitors picture objects in isolation, others foreground architectural backdrops, and still others integrate themselves into participatory or immersive displays. The resulting media identity is not singular but distributed: the museum circulates simultaneously as an archive, as a civic monument, and as a social setting. Negotiation here operates less through one dominant routine than through a multiplicity of competing framings, none of which entirely subsumes the others.

The **event-based hub**, represented by The Substation, constitutes a third typology. Unlike object-centered museums, The Substation's media profile is dominated by clusters of *People* and *Practical Items*. Photographs of tickets, posters, and gatherings outweigh depictions of artworks or architecture. In this case, the venue's hybrid identity is not primarily derived

from curatorial intention but from community practice. What circulates online is the scene itself: the sense of belonging, conversation, and participation in a collective. The Substation's media identity demonstrates that hybrid negotiation does not always revolve around the art object; it may also foreground the social life that surrounds cultural events.

Taken together, these typologies illustrate that the identity of Hybrid Art Places is not the product of curatorial authorship alone, nor simply of visitor appropriation, but of a negotiated interaction between institutional framings, visitor practices, and platform affordances. In the immersive stage, negotiation crystallizes around the enactment of self-insertion routines; in the distributed museum, around the coexistence of multiple routines that reflect both curatorial heterogeneity and public plurality; in the event-based hub, around the prioritization of social context over art objects.

What these cases demonstrate is the **logic of Hybrid Negotiation**: the meanings of art spaces are not predetermined but continuously shaped, contested, and co-authored within hybrid media ecologies. Hybrid Art Spaces are therefore best understood as dynamic arenas in which publics and institutions negotiate visibility, value, and significance through the interlocking grammars of curatorial staging and platform circulation.

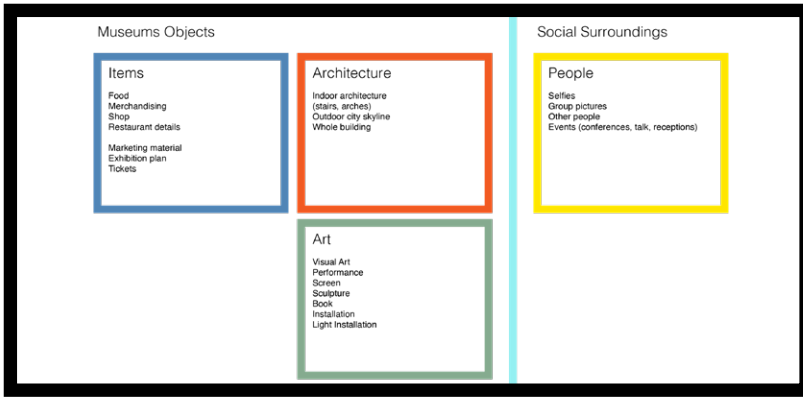


Figure 20. Labels in the elaboration of typologies. Diagram by the author. Originally published in Tomarchio (2021, 2023a).

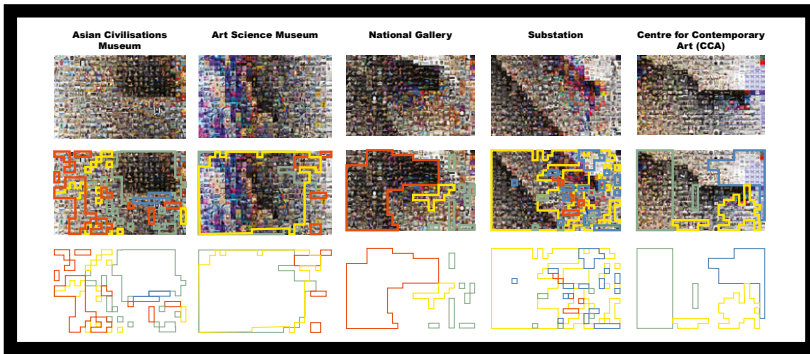


Figure 21. Typologies of the hybrid art place of museums. Diagram by the author. Originally published in Tomarchio (2021, 2023a).

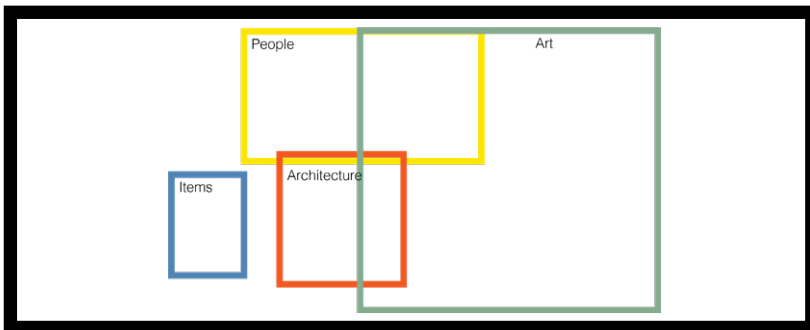


Figure 22. Scaled representation of the different clusters as mapped from the self-organising maps of the five museums and their intersections. Diagram by the author. Originally published in Tomarchio (2021, 2023a).

6.5 Hyper Hybrid Art Places: Definition, Mechanisms, and Empirical Grounding

A central finding of this study is the identification of a specific class of venues that I term Hyper Hybrid Art Places. These are art venues where the relationship between visitor numbers and social media posts is disproportionately amplified. Across the dataset, visitor numbers and media production are linearly correlated; in general, higher visitor numbers are associated with greater post volume. For most venues in Singapore, this relationship follows a stable trend with a relatively low coefficient of proportionality.

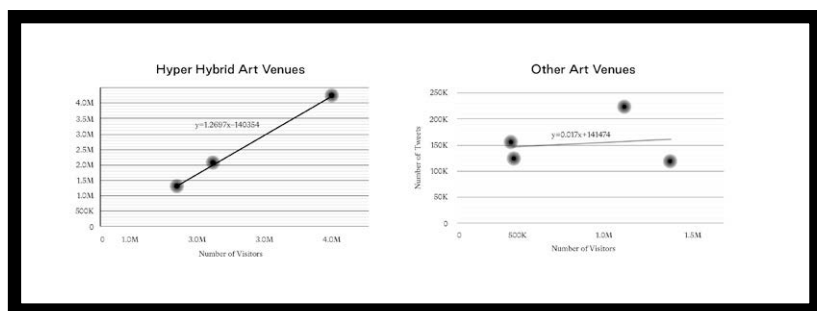


Figure 23. Comparison between the hyper and non-hyper hybrid art places, with the correlation between the number of visitors and the number of tweets in 2016 and 2017. Diagram by the author. Originally published in Tomarchio (2021, 2023b).

However, a small subset of venues diverges sharply from this baseline, producing up to seventy times more posts per visitor than expected.

Mathematically, hyper-hybridity can be defined as follows:

$$\text{Posts} > \beta \text{Visitors} \Rightarrow \text{Hyper-Hybrid}$$

Where β is the baseline proportionality coefficient derived from the majority of venues, a venue qualifies as hyper-hybrid when the post-to-visitor ratio exceeds this baseline by more than an order of magnitude.

In empirical terms, these venues are outliers whose media production cannot be explained solely by attendance. Hyper hybrid Places are therefore not simply popular. They are sites where physical attendance and digital circulation reinforce each other in recursive cycles of attention, producing visibility far greater than their visitor numbers would predict. This dynamic crystallizes the logic of algorithmic acceleration within Hybrid Art Space.

Drivers of Hyper Hybridity

The analysis suggests that this acceleration has two primary sources:

- + Material and curatorial factors.** Hyper hybrid venues typically stage immersive, spectacular, or participatory works—such as light-based environments, interactive installations, or monumental architecture—that lend themselves to photographic and performative appropriation. These settings generate images where visitors and art objects overlap, producing composites (Art + People, People + Architecture) that are particularly suited to social media circulation.
- + Platform logics.** Once in circulation, images from hyper hybrid venues are structurally advantaged by algorithms that privilege novelty, affect, and visual impact. Instagram’s Explore feed, for example, boosts saturated, affectively charged images that elicit engagement. This amplification increases visibility, attracting further visitors eager to replicate the circulating images, thereby sustaining the feedback loop between physical attendance and online dissemination.

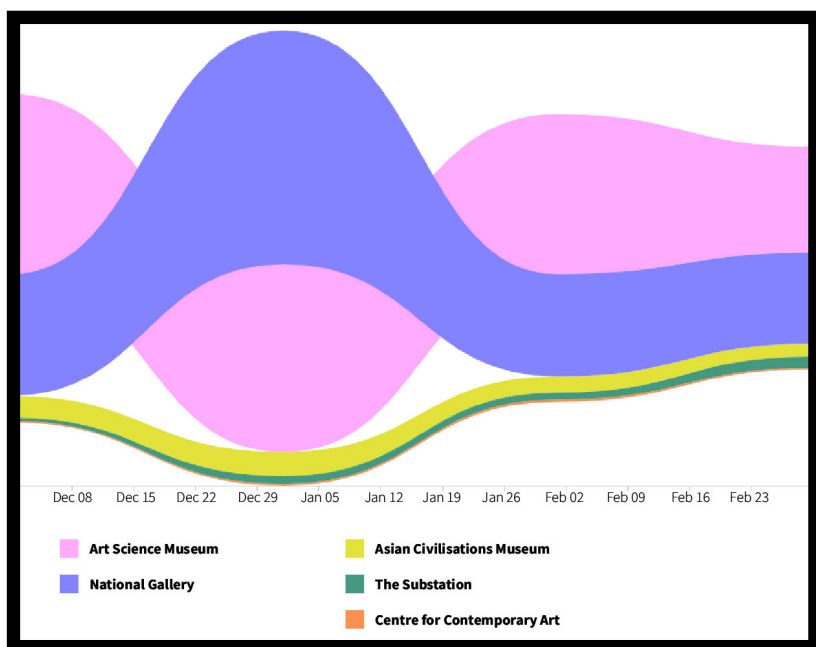


Figure 24. Comparison between production of images in Instagram from December 2019 to March 2020 among the five selected case studies. The two hyper venues (Art Science Museum and National Gallery in pink and blue, respectively) produced an average of 7,230 images in total, while the other three locations (light green for the Asian Civilisations Museum, dark green for The Substation, and orange for the Centre for Contemporary Art) produced an average of 450 pictures. Diagram by the author. Originally published in Tomarchio (2021, 2023a).

Looking back at the dataset, among the five case studies shown in Figure 24, two are hyper-hybrid art venues: the National Gallery and the Art Science Museum. While most non-hyper venues exhibit a predominance of stand-alone categories (Art alone, People alone, or Architecture alone), hyper-hybrid venues are dominated by intersectional categories.

At the ArtScience Museum, for example, 73% of posts fall into the cluster of intersections, reflecting installations such as *Future World* that integrate the visitor's body into the artwork. Similarly, at the National Gallery, the monumental colonial architecture accounts for a significant share of People +

Architecture images, with 57% falling within this intersection, effectively turning the institution itself into a stage for identity performance. This differs from the other venues and the control group, where standalone categories have more contributions.

Table 8. Distribution of merged content categories among the five museums. “Alone” indicates the sum of stand-alone categories (Art, People, Architecture) while “intersection” looks at the categories with more than one element (Art + People, Art + Architecture, People + Architecture). Tomarchio (2021, 2023a).

	National Gallery (Hyper)	Art Science Museum (Hyper)	The Substation	Asian Civilisations Museum	Centre for Contemporary Art	Control Group
Alone	43 %	24 %	75 %	93 %	81 %	69 %
Intersection	57 %	73 %	25 %	7 %	19 %	23 %

6.6 Conclusion

The empirical evidence from Singapore shows that three interacting forces pattern Hybrid Art Places.

- + Acceleration: Concentrated in hyper-hybrid places, acceleration occurs when spatial and curatorial affordances align with platform discovery, producing feedback loops that amplify circulation far beyond attendance figures.
- + Platform rules: These materialize as fundamentals of representation—stable visual grammars such as white box, dark immersive, and leisurely colorful—that structure how art is staged and circulated online.
- + Negotiation: Typologies emerge as negotiated identities, co-produced by institutions and publics through repeatable capture routines, which are dynamic over time and variable across sites.

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7. Hybridity

generates

Hybridity

The term *hybrid*—from the Greek *hybris*, meaning excess or transgression—referred initially to mixture and violation, and later came to mean combination or blending. In modern English, as defined by the Cambridge Dictionary, it describes “something that is a mixture of two very different things.” (Cambridge Dictionary 2025, “Hybrid”). This idea of mixture has made the term especially appealing across various fields, but it is also somewhat broad in meaning. In recent decades, the concept of Hybrid Space has emerged in multiple scholarly contexts, each emphasizing different forms of combination. In education, hybrid learning spaces (Omona and O’Dama 2024) refer to environments that integrate formal and informal modes of learning. In the social sciences, hybrid social spaces often highlight the intersection of cultural or religious identities (Gaillard 2023). Political geographers have used the term to describe protest sites, where communicative, organizational, and spatial elements converge (Karaliotas 2017). In postcolonial theory, Homi K. Bhabha (2004) famously recast hybridity as a condition of identity and negotiation within colonial relations (Bhabha 2004).

In architecture and urban studies—the primary disciplinary framework of this book—hybrid spaces often describe environments that blur functional, spatial, and social boundaries, such as those between public and private, cultural and commercial, and digital and physical (Cho et al. 2015; Dunlop et al. 2023). This multiplicity of meanings can appear confusing, but it is also productive. What makes hybrid compelling is precisely its openness: as the notion of virtual–physical hybridity has evolved, it has come to encompass additional layers of mixing among functions, institutions, publics, and temporalities (Tan 2022).

This chapter reclaims the term *hybrid* in an expanded sense: not simply as the overlap between online and offline, but as a dynamic and multi-scalar condition through which multiple systems—cultural, economic, spatial, and affective—intersect and co-produce visibility.

To explore this condition, the chapter analyses Twitter data mapping art-related activity in Singapore. The dataset, introduced in Chapter 5, was initially developed as a post-occupancy analysis of cultural planning—a way to evaluate how districts, grants, and infrastructures for the arts perform once inhabited by publics and media (Tomarchio 2020). Here, however, I use the same data differently. Rather than focusing on attendance or institutional performance, I examine how art venues are represented, circulated, and mediated within digital space.

Even if social media data are partial and algorithmically biased, they remain crucial for understanding the geography of visibility. If media representations influence how the public perceives, values, and eventually visits art spaces, then analyzing those representations becomes essential in itself. The maps that follow do not measure participation; they trace how hybrid art spaces are constructed discursively—how attention, affect, and algorithmic selection shape the existence of art in the city.

What emerges from this reading is a multiplicity of hybridizations. Hybridity between digital and physical spatial production is most evident in Singapore, precisely where other forms of hybridity coexist: between spatial logics (territory, network, and place), between functions (art and leisure) and between institutional roles (public and private). The following sections trace these intersecting layers, demonstrating how hybrid spaces multiply hybridity—creating new cultural formations in which representation, participation, and mediation blend.

7.1 Hybridity in the logics: Network, places, and territories

The multiplicity of hybridizations described above becomes visually understandable when mapped. The Twitter dataset shows how art-related communication in Singapore manifests through three interconnected spatial logics—territory, place, and network—that together form the city’s hybrid cultural landscape. These logics are not separate categories but overlapping conditions that continuously interact, creating and maintaining hybridity at various scales.

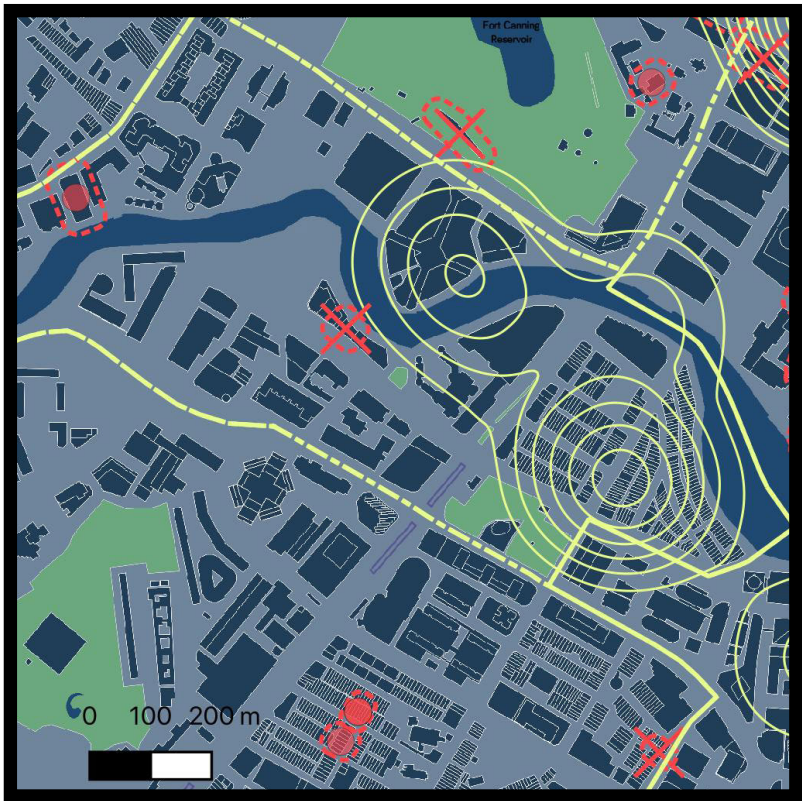


Figure 25. Mapping of the Singapore River area showing how networked, place-based, and territorial logics intersect in the production of hybrid art spaces. Diagram by the author. Originally published in Tomarchio (2021, 2023b).

Network and trajectories

Even when not drawn explicitly, a network of circulation underpins these formations. Images, mentions, and itineraries link distant venues across districts, generating cross-territorial pathways of cultural attention. The tweets not only track static locations but also movements—mobile subjects traveling through streets, sharing impressions, and connecting dispersed nodes of the art scene.

This underlying logic of trajectories constitutes the connective tissue of hybrid art space: a network that operates simultaneously in physical and digital realms. It enables the public to navigate culture through affective and algorithmic proximity rather than administrative borders.

Place

Individual art venues—museums, galleries, festivals, and pop-ups—emerge as places with distinctive media identities. They are sustained by recurring images, captions, and conversations that anchor them in the collective imagination. At some sites, the volume of posts increases with the number of visitors; elsewhere, the relationship is weak or even negative, indicating venues that are physically active yet digitally marginal.

Through these media narratives, places are not only represented but amplified. Their online presence extends their spatial agency—adding dimensions of affect, anticipation, and belonging. Mapping these interactions makes visible the performative dimension of place-making under hybrid conditions, where the physical and the discursive intertwine.

Territory

The logic pertaining to the territory is depicted as the most intriguing in Fig. 25, and it is the aspect to which I wish to dedicate greater attention.

In the dynamics of producing hybrid art spaces, several obvious boundaries or territories should be considered. Territorial logic

is most visible in the organization of Singapore's cultural districts. These zones matter not only because funding and recognition are allocated based on territorial designations that favor specific areas but also because they reveal how space itself serves as a tool of cultural policy. On the map, the boundaries of different districts (yellow dotted lines), art venues (red dotted lines), and, more broadly, Singapore's cultural infrastructure that typically receives institutional support are displayed alongside the distribution of art-related tweets.

The tweets themselves—represented as contour lines of intensity—mark where the original network of points condenses into visible clusters. These borders reveal where digital attention concentrates or fades, outlining what I describe as *mobile territories*: dynamic zones where publics gather, interact, and temporarily stabilize meaning. The fact that, while plotting the art-related tweets in Singapore, they naturally aggregate and cluster in specific zones or territories, demonstrates how online activities (algorithm and pre-selection) usually serve as non-institutional, personalized borders that stabilize or homogenize areas of interest. In the overlap between the two layers—the planned, official districts and venues, and the emergent, digital micro-territories—new configurations emerge. Digital publics often extend beyond institutional boundaries, illustrating how hybrid participation continually reshapes the city's cultural geography.

In the interactions among these spatial figures—network, place, and territory—conflicts and tensions naturally emerge (Farías et al. 2025). Hybrid space is not a smooth combination of logics but a zone of negotiation, where the flexibility of networks meets the rigidity of territorial regimes. This tension becomes particularly evident in Singapore, where the territorial logic of cultural districts—closely tied to funding systems and institutional recognition—rarely aligns with the distributed logic of digital networks through which cultural attention and participation actually occur. The result is a persistent reality check between where culture is administratively located and

where it effectively happens. While the territorial infrastructure channels resources and visibility into designated zones, the network disperses cultural activity across less formal, peripheral, or mobile venues. These misalignments generate both tensions and opportunities: they reveal the limits of spatial planning but also the vitality of hybrid cultural production, which continually exceeds institutional borders.

7.2 Results in Singapore: Hybridity Between Art and Leisure

The following mappings go beyond merely representing activity; they expose the tensions and overlaps among the spatial figures described above. In Singapore, hybridity appears not as a single state but as a dynamic interaction of logics. When read together, the maps show how hybrid art spaces are created through these layered interactions of territory, place, and network. The maps capture *visibility*, not the full range of practice. Platform biases—toward positivity, shareability, and photogenicity—influence what appears; yet, for this reason, they also reveal how platform rules shape the spatial production of culture. When viewed through the lens of spatial logic, these maps demonstrate how spatial figures coexist and interact. To reclaim the term hybrid in its various meanings, hybridity here is expressed through a hybridity of spatial logics and figures, representing their coexistence and interaction. In Singapore, central territories dominate, while peripheral initiatives struggle for visibility; discovery zones thrive where planning is silent; and “platform-curated bubbles” outline micro-geographies of art-related attention that are pre-selected and reinforced online.

Twitter Data
2016 2017
Scale 1:200.000
Contour: 50, 200, 400
Radius: 0.02

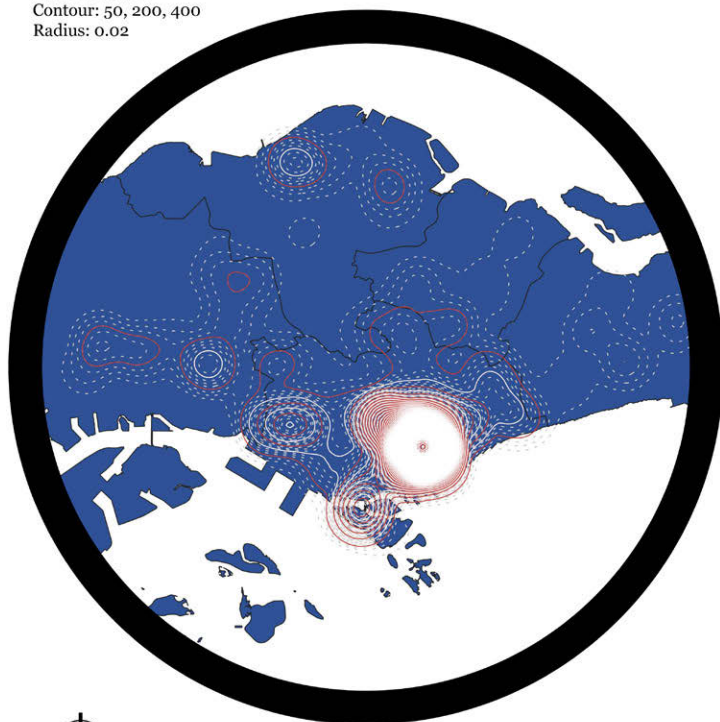


Figure 26. Map of Singapore displaying the spatial distribution of art-related Twitter activity during 2016–2017. The visualization shows several clusters of cultural communication: three major clusters in the southern part of the island—around HarbourFront/Sentosa (leisure and performance area), Marina Bay–Bras Basah (dense with art institutions such as the Esplanade, ArtScience Museum, and National Gallery), and One-North/NUS (innovation and research hub). Smaller clusters appear in Jurong East, Jurong West, Bukit Timah, Woodlands, and Yishun. The intensity of activity mirrors Singapore’s cultural planning, with the strongest concentration in the central civic district designated for museums. Diagram by the author. Originally published in Tomarchio (2021, 2023b).

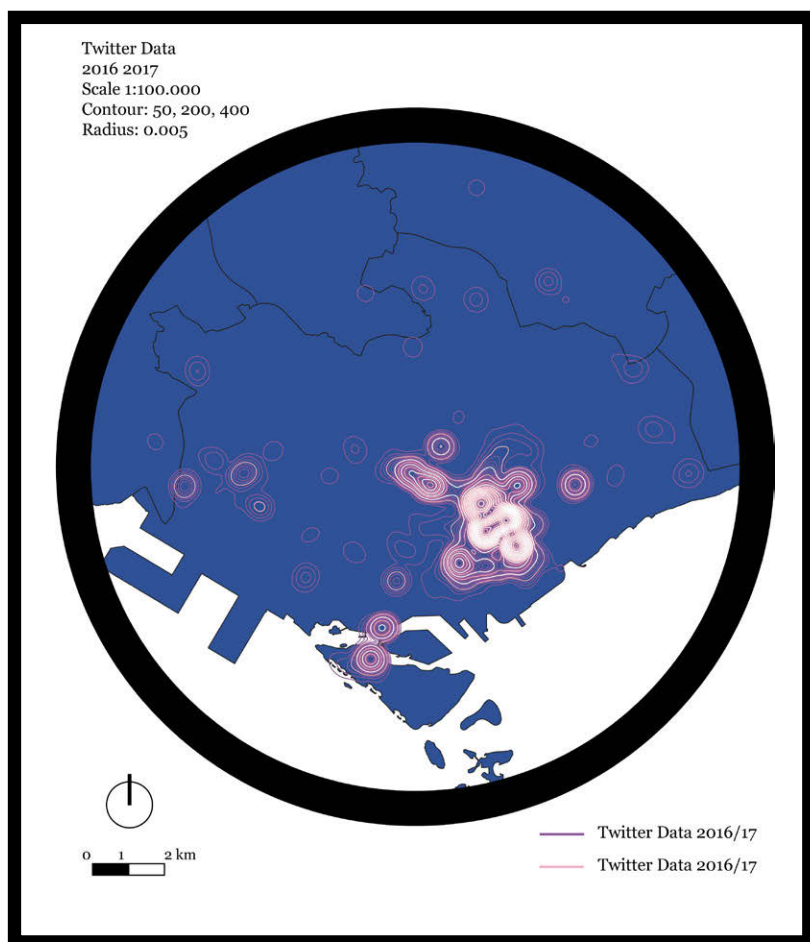


Figure 27. A detailed map of central Singapore showing clusters of art-related tweets. From east to west: a medium-intensity cluster over the Singapore Indoor Stadium, another over the Arab Quarter, a high-intensity cluster at Marina Bay Sands centered on the ArtScience Museum, another intense cluster along Raffles Boulevard, one over the National Gallery, a medium cluster in the Bras Basah area near the Singapore Art Museum. Diagram by the author. Originally published in Tomarchio (2021, 2023b).

What becomes visible in the maps is not a direct representation of artistic activity, but rather a spatial negotiation between institutional planning and digital participation. By comparing the aggregated mobile territories derived from art-related

tweets with Singapore's officially designated cultural districts—as well as with the locations of venues supported under the *Arts Housing Scheme* and the *Framework for Art Spaces*—the mappings reveal gaps, overlaps, and extensions between the planned and lived geographies of culture. Through this integration of datasets within a GIS environment, enriched with metadata on funding type, amount, and artistic field, hybridity becomes empirically legible: it materializes where the digital territories of attention coincide with, diverge from, or exceed institutional infrastructures. These cartographies thus do not merely visualize spatial data; they trace the frictions and convergences through which the hybrid cultural landscape of Singapore is continually produced and redefined. (For a detailed explanation of the attributes assigned to each venue and the categorisation criteria, see the Methodology chapter). Three patterns emerged from this comparison

Confirmation: where digital attention reinforced existing planning decisions, as art-related clusters aligned closely with state-supported institutions and districts.

Negation: where planned venues or subsidized areas produced little or no online activity, revealing the absence of public engagement despite institutional support.

Discovery (Emergence): where significant art-related communication occurred in unlisted or commercially driven sites, signaling the spontaneous formation of new cultural zones.

What stands out most is a pattern of convergence, specifically evident in the discoveries: in Singapore, art and leisure overlap both physically and conceptually. When mapped against the city's cultural infrastructure, the densest clusters of art-related tweets appear not only around museums or planned art districts but also within commercial and entertainment zones, such as shopping malls, hotel lobbies, and nightlife streets. In these areas, social media activity tied to art equals or even exceeds that of officially designated cultural venues. Orchard Road, Clarke Quay, VivoCity, and Marina Bay—well-known

Singapore shopping malls and districts—stand out as hybrid corridors where art events, brand installations, performances, and leisure activities blend into a continuous experiential landscape. This overlap exposes a broader trend of cultural hybridization through leisure. In Singapore's model of cultural urbanism, which is dense, curated, and commercially integrated, art visibility largely relies on spaces designed for consumption and display. Social media intensifies this trend: posts about art are often embedded within sequences of entertainment, shopping, or dining. As a result, what's circulated isn't just art as a standalone object but art-leisure experiences that are photogenic, shareable, and amplified by algorithms. The maps turn this dynamic into a visual form. The contours of digital density outlining the mobile areas of art almost perfectly match the geographies of leisure. In some cases, like the ArtScience Museum within Marina Bay Sands, the alignment is intentional, a result of government-led strategies to blend culture and tourism. In other instances, such as Clarke Quay or the atria of boutique hotels, the convergence happens naturally, as the public views commercial interiors as aesthetic and performative stages. More and more, private and commercial spaces use art as a way to gain exposure, turning cultural displays into entertainment and brand differentiation. This finding shifts our understanding of hybrid art spaces. Cultural experiences no longer reside primarily within museums or galleries, but extend into **commercial infrastructures that also serve as cultural ones**. Leisure becomes the dominant logic through which hybrid territories are constituted, providing both the temporal rhythm (evening and weekend peaks) and the spatial setting (malls, bars, waterfront promenades) that sustain cultural visibility. In this sense, Singapore exemplifies a broader transformation observable in many global cities, where the infrastructures of entertainment function as new cultural public spaces. What appears in the maps is not the erosion of art, but its migration into the everyday architectures of leisure, a process that redefines where and how culture takes place in the hybrid city.

Table9.Locationsoftheobservedemergences,thenumberofart-related tweets from each, and theirtemporal development. Tomarchio (2021).

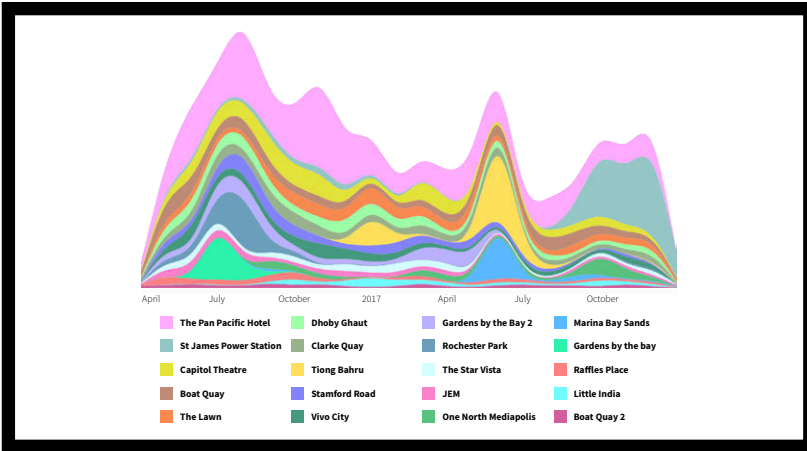
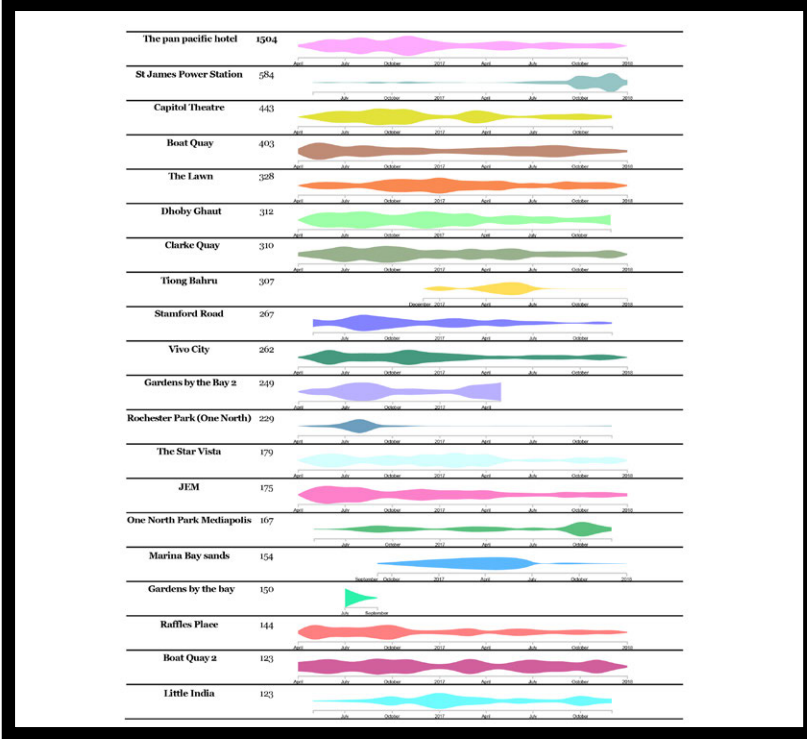


Figure 28. The image compares the distribution of art-related tweets over the year across the different Discoveries.Tomarchio (2021).

In Table 9, each line marks an emergent site, a discovery, or a location not yet officially recognized as an art venue that generates a significant number of art-related tweets. The colored waves show the activity levels over time across the 21 months of data collection. A clear pattern appears: leisure infrastructures dominate. Hotels (Pan Pacific), entertainment complexes (St James Power Station), nightlife and shopping districts (Clarke Quay, Orchard Road, VivoCity, Boat Quay) record the highest and most sustained levels of cultural visibility. Their peaks coincide with weekends and holidays, confirming that art-related communication in Singapore is rhythmically tied to consumption and recreation. Instead of museums or galleries, the Pan Pacific Hotel—a commercial hospitality site—stands out as the strongest node of art-related discourse, followed by entertainment and nightlife venues. What these sites share is not curatorial programming but hybrid exposure: the convergence of atmosphere, aesthetics, and digital shareability. The image also illustrates the temporal fragility of these territories. Many pulse into visibility only briefly—during festivals, installations, or branded events—before fading. However, collectively, they form a persistent pattern: the collapse of art and leisure into a single, algorithmically amplified field.

7.3 Hyper Hybrid: The Densification of Hybridity

The empirical results clarify what sets apart the **hyper-hybrid art places** introduced earlier in this book. Their remarkable visibility isn't just due to digital amplification; it reflects a deeper layering of hybridity across programmatic, institutional, and economic levels. Hyper-hybrid places are those where multiple forms of mixing—between art and leisure, public and private, culture and commerce—intertwine, creating both increased visibility and greater participation. Quantitatively, the dataset confirms this trend. The venues that reach *hyper* levels of online attention are those that combine multiple logics within the same space.

Table 10. Distribution of Confirmations, Negations, and Hyper among the different art venue features. Tomarchio Tomarchio (2021, 2023b).

Type of Process	Confirmation %	Negation %	% of Hyper in Confirmations
consumption	40	60	8
education	46	54	0
mixed	54	46	4
production	13	87	0
Type of Art	Confirmation %	Negation %	% of Hyper in Confirmations
All	50	50	9
Design	43	57	0
Society	25	75	0
Theatre/dance	41	59	9
Traditional art	24	76	6
Visual art	37	63	5
Type of Venue	Confirmation %	Negation %	% of Hyper in Confirmations
Art services	20	80	0
Gallery	30	70	3
Multipurpose	42	58	5
Museum	59	41	16
Organisation/institution	39	61	4
Stage	55	45	15
Studio	23	77	0
Permanent/Temporary	Confirmation %	Negation %	% of Hyper in Confirmations
Permanent	38	62	6
Temporary	42	58	5
Art venues within 500m	Confirmation %	Negation %	% of Hyper in Confirmations
1-15	29	71	5
16-30	37	63	5
31-46	66	34	10
Heritage Building	Confirmation %	Negation %	% of Hyper in Confirmations
FALSO	35	65	3
VERO	49	51	15
Subsidy plan	Confirmation %	Negation %	% of Hyper in Confirmations
Plan	46	54	10
No-Plan	32	68	3

Spatial cluster	Confirmation %	Confirmation %	Confirmation %
Belonging to a spatial cluster	49	51	6
No	33	67	6
Outdoor/Indoor	Confirmation %	Negation %	% of Hyper in Confirmations
Indoor	36	64	6
Outdoor	86	14	0
Sentiment Analysis	Confirmation %	Negation %	% of Hyper in Confirmations
Negative	0	100	0
Neutral	36	64	0
Positive	44	56	7
Topic Diversity	Confirmation %	Negation %	% of Hyper in Confirmations
Low	33	67	17
Average low	56	44	12
Average high	37	63	4
High	9	91	0

Observing the Table, it is possible to see different trends: First, **consumption-oriented venues**—such as museums, galleries, and theaters—host almost all hyper cases. Around eight percent of confirmed venues in this category achieve exceptional visibility, far higher than production or education sites, which show nearly none.

Second, **interdisciplinary and mixed programs** strongly correlate with high presence. Venues classified as *all-arts* or *mixed* register the highest concentration of hypers, followed by theatre and dance, which naturally blend scenography, performance, and audience participation. These formats are inherently relational, blurring the distinctions between artwork, event, and atmosphere and speaking to multiple publics simultaneously. Their digital prominence stems not only from popularity but also from their ability to sustain various forms of engagement simultaneously.

By contrast, **production and educational spaces**—such as studios, residencies, and schools—remain nearly invisible online. Their activities are vital to the cultural ecosystem but unfold in professional or closed circuits, generating expertise rather than spectacle. Their absence from the hyper layer does not signal failure but reveals a structural asymmetry: **visibility follows hybridity**. The more dimensions a venue connects—cultural, social, economic—the denser its digital footprint becomes.

Insights from the Social Media Art Model (SMAM)

To explore these dynamics further, the Social Media Art Model (SMAM) identifies which features of art venues most strongly predict media production, aligning with an AI model (see Chapter 5). Three variables consistently stand out as decisive:

- + **Topic diversity.** The curatorial strategy of changing or diversifying exhibitions strongly predicts media output. This aligns with platform logics privileging novelty and content refreshment, ensuring a continuous supply of shareable images.
- + **Spatial clustering.** Venues located within walking distance of other art institutions generate more media content. This reflects traditional cultural planning strategies, but in the hybrid context, clustering creates algorithmic spillovers: users often tag or co-post neighboring venues, increasing the media visibility of the entire cluster.
- + **Sentiment.** Posts with a strongly positive emotional tone tend to be more visible. Algorithms reward emotionally engaging content, meaning that venues capable of creating affectively charged experiences—through immersive spectacle or monumental awe—are structurally favored.

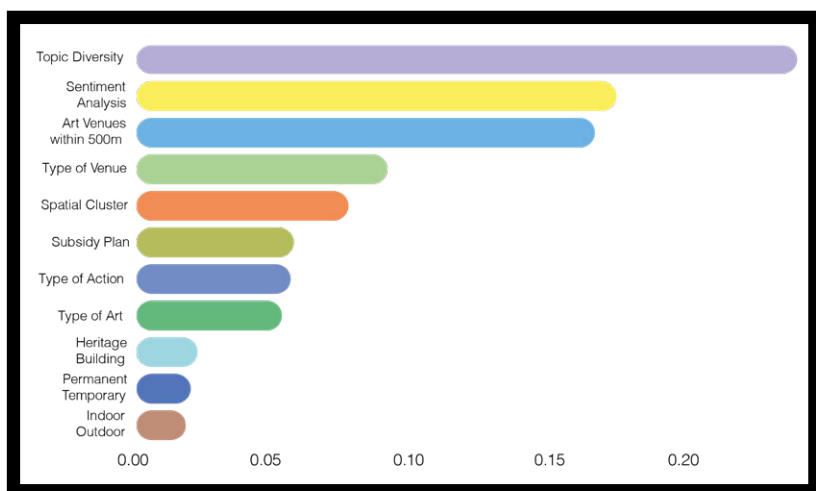


Figure 29. Importance of art venue features correlated with social media production. Tomarchio (2023, 2021b).

These findings confirm that hyper-hybridity arises from a dual mechanism. On the material side, it is fostered by curatorial and planning decisions, including immersive exhibition design, architectural spectacle, and venue clustering. On the digital side, it is accelerated by platform logics privileging novelty, diversity, and affect. When these two dimensions converge, they produce an accelerated feedback loop: immersive and clustered venues generate more shareable posts, algorithms reward this activity, visibility attracts more visitors, and the cycle reinforces itself.

Seen this way, *hyper* does not mean “better” or “bigger.” It denotes a **densification of hybridity**: an intensified condition where multiple systems of value, attention, and circulation reinforce one another. Hyper Hybrid Art Spaces are not exceptions to the cultural landscape but its most condensed nodes—points where the logics of art, commerce, and communication converge most visibly.

The SMAM results underscore this structural condition. The highest-performing hyper-hybrids operate at the intersection:

- + **Institutional hybridity**, combining public funding with private investment.
- + **Programmatic hybridity**, continually refreshing topics and formats to sustain visibility;
- + **Spatial hybridity**, arising from the proximity of venues that amplify one another through algorithmic and social spillovers;
- + **Socio-economic hybridity**, connecting diverse publics through shared forms of aesthetic consumption.

It is this **multi-dimensional hybridity**, rather than any single variable, that maintains their visibility over time. The convergence between art and leisure identified earlier reaches its most concentrated form in the hyper-hybrid. What begins as a spatial overlap—between cultural infrastructures and entertainment zones—solidifies in specific venues, where hybridity becomes the organizing principle rather than a mere side effect. In these spaces, the logics of art display, commercial consumption, and social mediation no longer coexist; they are close and actively support and enhance one another. The hyper-hybrid thus marks a turning point: it is where visibility becomes self-sustaining, where participation, branding, and emotional experience come together to create a continuous cycle of cultural attention.

7.4 Conclusion: The Ecology of Hybrid Visibility

This chapter has shown how hybridity operates. The maps of Singapore reveal that visibility is shaped more by ongoing interactions among publics, institutions, and media, crystallized in distinct spatial logics. What becomes clear is a geography defined by attention and circulation rather than

by physical boundaries alone. Hybrid (digital-physical) spaces are evident when other forms of hybridity occur: first, spatial hybridity, where territories, places, and networks overlap. Second, functional hybridity, where art intersects with leisure, commerce, and hospitality, extending cultural experience into everyday infrastructures.

These forms converge most clearly in the hyper-hybrid places. Here, hybridity is no longer a relation between distinct domains but a condition of operation in itself. The hyper-hybrid space demonstrates how visibility, participation, and mediation reinforce one another, sustaining continuous cycles of attention across physical and digital contexts. Within these sites, different dimensions of hybridity intersect: institutional hybridity, where public and private systems of value coexist; programmatic hybridity, where venues sustain attention through the continual renewal of topics and formats; spatial hybridity, where proximity and clustering amplify visibility through social and algorithmic spillovers; and socio-economic hybridity, where diverse publics converge through shared forms of cultural and affective consumption. Together, these interdependent layers form the operational infrastructure of contemporary hybrid culture—a self-reinforcing ecology in which art, communication, and leisure no longer overlap but mutually generate one another. Understanding culture through this lens means viewing it as an ecology of relations—dynamic, uneven, and shaped by multiple systems of value. The Singapore case suggests that hybrid art spaces are not simply by-products of digital mediation or cultural policy, but key sites where these systems intersect.

Hybridity, in this sense, generates further hybridity: each new intersection between art, media, and everyday life produces additional layers of entanglement. The hybrid city is therefore best understood not as a fixed structure but as a process of ongoing reconfiguration, where visibility itself becomes a central mechanism in the formation of cultural space.

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8. Hybrid Art Sites

In most cultural institutions and planning departments today, the digital aspect is often seen as a secondary concern. Social media feeds are typically managed by communications staff or outsourced to PR agencies, which can lead to a disconnect from curatorial or planning strategies. Success metrics still tend to favor “on-site” indicators like visitor numbers, ticket sales, or the size of new cultural districts. However, the evidence in this book shows that digital visibility is not an afterthought: it is central to how art spaces are created, experienced, and valued.

Posts, hashtags, and algorithms do not simply represent what happens in museums or galleries; they actively shape how artworks are encountered, how publics form, and how institutions are perceived within more expansive cultural landscapes. In other words, the digital layer is constitutive of cultural life itself.

This chapter translates analytical insights into practice, it looks at the city as an Hybrid Art Site. It does so in two steps. First, it sets out a manifesto for curators and planners, articulating principles for working in hybrid conditions where physical, social, and digital registers are inseparably entangled. Second, it introduces two practical tools—the interactive visualization (for curators) and the mapping approach (for planners)—that operationalize these insights. Together, the manifesto and tools reframe hybrid art spaces not only as an analytical category, but as a field of practice in which institutions can act deliberately and strategically.

8.1 The Hybrid Condition of Cultural Work

The empirical results from Singapore highlight a fundamental point: cultural life unfolds in a hybrid space, or a hybrid soup. Hybrid art spaces are not just physical locations with added social media; they are co-produced by the interaction of curatorial choices, spatial features, visitor behaviors, and platform dynamics.

For planners, this means that hybrid publics rarely align with administrative boundaries. Tweets, posts, and tags weave together venues across districts, forming networks that transcend official planning zones. In Singapore, emergent clusters were observed not only in designated museum districts but also in commercial complexes, shopping malls, and leisure areas. For curators, the lesson is that exhibition grammars, whether the minimalist “white box,” the “dark immersive” field of light installations, or the “leisure colorful” settings of participatory art, function as communicative infrastructures. They determine how those encounters are captured, circulated, and amplified online. A curatorial choice is therefore simultaneously a communicative choice, shaping the institution’s visibility and identity in the digital sphere. Taken together, these insights redefine the scope of cultural work. The responsibility of curators and planners is no longer limited to designing spaces or programs; it now encompasses developing educational content. It extends to the design of hybrid conditions in which material affordances and digital routines intersect. Institutions that recognize this condition can begin to act proactively, shaping not only who visits a space, but also how that space lives on in feeds, hashtags, and publics that stretch far beyond its walls.

8.2 Manifesto Curators and Planners

This chapter shifts from analysis to statement—offering a manifesto for understanding, rather than a set of steps for improvement. In most discussions about the “digital turn,” institutions are encouraged to optimize: to use data to reach audiences, improve engagement, and increase visibility. This chapter opposes that approach. The manifesto and tools here are not meant to make hybrid art spaces more efficient. They aim to make them understandable—to reveal the processes by which art, place, and mediation are jointly created. Understanding, not optimization, is the goal.

Manifesto for Hybrid Cultural Awareness

+ Acknowledge hybridity as constitutive, not additive.

The digital is not an extension of the physical institution; it is part of its spatial, aesthetic, and political fabric. Every curatorial or planning decision already has digital consequences.

+ Circulation design, but also for reflection.

What travels through posts and images reveals how culture is mediated. To see these circulations is not to amplify them, but to understand the conditions under which they occur.

+ Curate communicative infrastructures consciously.

Exhibitions and cultural programs are forms of media architecture. They structure what becomes visible and what remains unseen, who is addressed, and who is excluded.

+ Plan for hybrid publics, not just designated audiences.

Cultural life exceeds institutional and administrative boundaries. It unfolds through networks, feeds, and affective proximities that planning rarely anticipates.

+ Measure what circulates—but question why it circulates.

Visibility is never neutral. Algorithms privilege specific aesthetics, behaviors, and bodies. Awareness requires recognizing these asymmetries rather than reproducing them.

+ Act diagnostically, not prescriptively.

Tools and data are mirrors, not manuals. Their purpose is to reveal patterns that usually remain invisible, so that institutions can think rather than react.

+ Preserve opacity.

In an economy of total visibility, cultural work must also defend spaces that resist capture—moments of intimacy, dissent, and ambiguity that escape the feed.

+ Reimagine responsibility as awareness.

To work in hybrid conditions means accepting that institutions participate in systems of mediation and value. Awareness, not optimization, is the ethical stance of this manifesto.

8.3 From Manifesto to Practice

The manifesto sets out a horizon of awareness; the following tools operationalize that stance. They do not prescribe how to act but make visible what is already happening, allowing curators and planners to see the hybrid condition at work.

Interactive Visualization for Curators

The web-based platform hybridartspaces.com translates the outcomes of image clustering and typological analysis into an accessible interface. Curators can explore how their venues appear in social media feeds compared to others, filtering results by art form, spatial configuration, or indoor/outdoor setting. The platform integrates data derived from machine learning—such as topic diversity and sentiment analysis—offering interpretive layers that reveal, rather than optimize, visibility.

Venues can also be navigated through an interactive map that visualizes proximity and affiliation with specific art districts. This tool visualizes the kinds of images visitors create, how they circulate online, and which patterns of capture and sharing prevail.

For curators, it offers reflective insight into questions such as:

- ✚ What kind of media identity characterizes a particular venue?
- ✚ How do venues within the same district, or within the same art category, compare in their visual representation?
- ✚ How do museums in Singapore, theatres, or temporary outdoor installations differ in their social media presence?

The visualization thus acts as a **curatorial mirror**—not prescriptive but diagnostic—revealing how spatial design and programming decisions materialize as media identities, and where awareness might lead to more conscious, plural representations.

The website functions as an interactive visual platform for exploring hybrid art spaces in Singapore. Users can select one or multiple indicators on the right panel—such as “Type of Art,” “Use of Space,” or “Indoor/Outdoor.” Additional variables integrate data derived from computational analyses, including “Topic Diversity” and “Sentiment Analysis.” The left panel displays the corresponding media content, while the map visualizes the spatial distribution of venues across the city. The interface allows for the cross-exploration of cultural, spatial, and digital dimensions, illustrating how hybrid art spaces emerge from the intersection of physical infrastructures and online representations.



Figure 30. Screen shot of the website hybridartspaces.com. The website functions as an interactive visual platform for exploring hybrid art spaces in Singapore. Tomarchio (2020).

Mapping and Post-Occupancy Analysis for Planners

For cultural planners, mapping art-related social media data provides a complementary tool. By aggregating posts spatially and temporally, planners can identify where clusters of hybrid activity emerge, observe how they shift over time, and relate them to planned cultural districts. Such mapping constitutes a hybrid form of post-occupancy evaluation. It asks not whether a district attracts visitors, but how it circulates—what publics it convenes, what images it produces, and which remain invisible.

Unexpected clusters—whether in malls, hotels, or temporary festivals—mark unplanned cultural ecologies that invite reconsideration rather than optimization. Post-occupancy evaluation enables the assessment of planning decisions after implementation, providing an invaluable opportunity to reflect on their effectiveness and appropriateness. Visualizations derived from this process can reveal different logics that challenge the assumptions embedded in master plans or funding strategies, such as those in Singapore.

By combining various spatial logics—some illustrated in previous chapters—these visualizations enable the representation and observation of alternative, integrated logics that decision makers might not have previously considered. For cultural planners, mapping art-related social media activity offers a complementary tool to traditional evaluation methods.

By aggregating posts across space and time, planners can identify emergent clusters of hybrid activity, track their evolution, and relate these patterns to the development of cultural districts. These maps operationalize hybrid space logics at the urban scale by testing administrative boundaries against actual activity (territory), highlighting which venues gain or lose visibility (place), and exposing communicative links that transcend planning boundaries (network).

This approach constitutes a hybrid post-occupancy evaluation that moves beyond simply counting visitors; it explores

circulation patterns, public engagement, the images produced, and the invisible spaces of activity. Unexpected clusters—whether in malls, hotels, or temporary festivals—highlight unplanned cultural ecologies that invite reconsideration of planning strategies, emphasizing the importance of flexibility and responsiveness over rigid optimization.

Together, these two tools demonstrate how hybrid methods can extend the repertoire of cultural professionals. Curators gain a way to evaluate the media identities of exhibitions and venues; planners gain a way to assess cultural infrastructures at the scale of districts and the city. Both contribute to a more intentional, responsive practice, one that recognizes hybrid space not as an afterthought, but as a primary arena of cultural production.

Table 11. This table summarizes the strengths, weaknesses, opportunities, and threats identified through the comparative mapping of cultural districts, institutional infrastructures, and digital territories of art-related activity. It illustrates how spatial analysis can support the evaluation of cultural planning strategies in cities like Singapore, revealing where planned cultural infrastructures align—or fail to align—with lived and networked geographies of cultural production.

Strengths	Weaknesses	Opportunities	Threats
The current general distributions of tweets stress the presence of a big central cluster, which partially matches with the Central Civic District, the central area in Singapore. Therefore, there is a strong confirmation towards the decision of the government in different steps to centralise art-related activities in the city centre, with a strong focus on the district “museum”. The strengths emphasised here is the concentration, but also the confirmation of Singapore cultural planning strategies.	The main problem is the lack of many alternatives. While connections among art facilities are desired, the goal to create an “art district” would benefit from the presence of more than one main cluster. The alternative clusters to the current central one do not show the extension, the duration in time, and the intensity necessary to be considered significant, when compared with the central one.	The emerging alternative clusters, still represent opportunities for enhancements with dedicated policies. Specifically, the cluster on Orchard Road emphasises a future trend of coexistence between commercial and cultural activities. The cluster on Buona Vista enlarges the art cultural area of interest towards innovation and technology. Those two clusters show very promising trends.	The maps representing the monthly variations and the variations across weekdays show how the art-related tweets seem connected to touristic and leisure activities, which may be one of multiple aspect to enhance.

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9. Hybrid Art Space in a changing Media Ecology

This book has explored how art, publics, and platforms intersect to produce new spatial formations that I term hybrid art spaces. Addressing the guiding research questions, the analyses show that hybridity is not a fixed category but a relational condition, one that intensifies as cultural, economic, and algorithmic systems overlap.

Hybrid art spaces are environments where architecture, curation, and platform mediation converge. They are not defined by a single typology but by their capacity to link different systems of visibility and participation. Physically, they consist of built settings for exhibition and encounter; digitally, they extend into networks of circulation, hashtags, and affective traces. Their spatial form is relational: they exist where cultural display, social mediation, and algorithmic attention meet. Hybridity, therefore, is not simply a feature of these spaces but their mode of operation.

✚ What logics of hybrid space can be demonstrated in the Singapore case?

The mapping of art-related tweets and posts in Singapore revealed three coexisting spatial logics. Territorial logics correspond to the infrastructural layer of cultural planning, the officially designated districts where institutions are clustered and supported. Place logics appear through attachment and repetition, as publics and media narratives stabilize venues as meaningful nodes. Network logics describe the connective flows of movement and communication that link distant sites and districts. Together, these logics reveal that hybrid art spaces operate through overlapping scales—planned and spontaneous, central and peripheral—that together produce a mobile and uneven geography of cultural visibility.

✚ What makes specific spaces hyper-hybrid? Some sites display such a high concentration of

hybridity that it becomes self-reinforcing. These Hyper Hybrid Art Venues integrate multiple systems—spatial, institutional, and experiential—within a single framework. Spatially, they combine exhibition, commerce, and leisure, creating environments of continuous engagement. Institutionally, they blend public and private support, aligning cultural legitimacy with market visibility. Experientially, they sustain interaction through affective design and media-oriented aesthetics, encouraging visitors to document and share their experiences. In such sites, hybridity amplifies itself: the more dimensions overlap, the stronger the flow of attention and participation becomes. This feedback loop—hybridity generating more hybridity—explains why specific venues maintain persistent visibility and why cultural infrastructures today tend toward densification rather than diversification.

✚ Do hybrid art spaces reiterate platform logics in physical form?

The data also reveal how algorithmic grammars of visibility—novelty, affect, and photogenicity—translate into architectural and curatorial strategies. Venues increasingly design immersive, monumental, or scenographic spaces that anticipate digital circulation. In doing so, the aesthetics of platforms migrate into physical space, shaping not only how culture is experienced but also how it is produced and valued. The hybrid art space serves as an interface between algorithmic systems and urban form, where cultural participation is both staged and measured.

✚ How can hybrid art spaces be studied methodologically?

Computational and qualitative methods can reveal the dynamics of hybrid cultural production. Mapping, clustering, and image classification do not replace

qualitative interpretation but extend it—showing how publics, institutions, and platforms co-produce space. These methods shift the focus from measuring attendance to tracing visibility, offering a new diagnostic for reading how attention, affect, and infrastructure intersect in the hybrid city.

Taken together, these findings show that hybridity generates hybridity. The intersection of cultural, economic, and digital systems produces recursive formations of attention—sites where visibility, participation, and mediation continuously reinforce one another. For cultural planners and curators, this implies that visibility itself has become an infrastructural element. Designing and evaluating cultural spaces now requires understanding not only where publics go, but how they circulate and represent culture through digital means. Mapping those traces allows planners to detect emergent patterns, adapt institutional frameworks, and support new forms of publicness that reflect the lived geographies of hybrid culture.

While the findings address the original research questions—defining hybrid art spaces, identifying their spatial logics, examining their platform-based visibility, and developing methodological tools—it is important to recognize that these analyses were conducted within a specific technological era. The media ecologies of the mid-2010s influenced both what could be observed and how hybrid art spaces operated. As platforms evolve toward recommendation-driven feeds, creator economies, and AI-generated content, new dynamics emerge. These changes do not invalidate the book's findings; instead, they expand them by prompting further questions about whether the co-production of hybrid space will increasingly involve not only publics and institutions but also machines. What remains constant is the relational nature of hybrid art space, even as the actors and mediations involved continue to develop.

9.1 Future directions

The arguments developed in this book are rooted in a specific historical moment. They emerged in a media environment shaped by Instagram's image-based logics, Twitter's immediacy, and the early acceleration of platform-driven cultural visibility. These were the infrastructures available when this research began in the mid-2010s, and they fundamentally conditioned what could be observed. Hybrid art spaces, as theorised here, are therefore not timeless categories: they reflect particular relations between cultural practice, digital mediation, and urban space at a moment when social media is still centred on personal networks, self-presentation, and comparatively accessible data streams.

Since then, platform ecologies have changed dramatically. Social media has shifted from networks of friends to entertainment infrastructures structured by recommendation algorithms, creator economies, and short-form video. The rise of synthetic content—AI-generated images, automated influencers, and machine-authored storytelling—further complicates the very notion of visibility. These developments do not invalidate the framework proposed in this book, but they do raise new questions for it. Suppose hybrid art spaces were once co-produced by publics and institutions. How do they function when machines participate directly in shaping aesthetic expectations, amplifying content, or even generating the images through which cultural visibility circulates?

This shift also challenges one of the assumptions underlying much contemporary research: that social media data offer an empirical window into public cultural behaviour. As platforms increasingly curate perception through opaque algorithms and as synthetic content proliferates, the link between what circulates online and what is practiced, experienced, or valued offline becomes more complex. The analytical tools developed here still illuminate patterns of clustering, acceleration, and negotiation—but the representational status of those patterns now demands more caution. They capture cultural visibility,

not cultural totality; they reveal what becomes amplifiable, not necessarily what is significant.

The specificity of the Singaporean context adds another layer of situational complexity. The dynamics observed here—such as the collapse of art and leisure or the emergence of hyper-hybrid venues—are tightly intertwined with local cultural policy, infrastructural centralization, and the city-state's integration of art with tourism and commerce. Whether similar configurations appear in cities with bottom-up cultural ecologies, in heritage-rich European contexts, or in rapidly urbanizing Asian metropolises remains an open question. Comparative studies could clarify which dynamics are more characteristic of hybrid art spaces more broadly and which arise from Singapore's particular political economy of culture.

Technically, the analyses in this book were shaped by the methodological constraints of their time. Manual image coding produced nuance but limited scale. Today, accessible machine learning tools could automate and expand these analyses, enabling typologies across larger datasets and more varied venue types. But here too, the growing entanglement with machine-generated visibility complicates the picture: the same tools that could scale analysis also introduce new forms of bias and abstraction. Future research must therefore not only automate classification but also interrogate how such automation co-produces the spaces it seeks to describe.

For these reasons, the future of hybrid art space cannot be predicted with certainty. Instead, it opens a set of conceptual and methodological questions:

- ✚ How will hybrid spaces function when cultural visibility is increasingly shaped by algorithmic systems that do not simply rank content but actively generate it?

- ✚ What forms of co-production emerge when publics, institutions, and machines jointly participate in shaping spatial meaning?
- ✚ How should researchers study hybrid space in media environments where the boundary between documentation and fabrication becomes unstable?
- ✚ And how might cultural planning operate when the infrastructures of circulation are themselves in flux?

Rather than offering definitive answers, this book invites readers to treat hybrid art space as a living concept—one responsive to changing technologies, new modes of cultural participation, and evolving urban conditions. The core claim remains: art, media, and space are now deeply entangled, and understanding their relations is essential to interpreting contemporary cultural life. Yet the direction this entanglement will take, particularly as machine-generated media become more pervasive, remains open.

In this sense, the conclusion is not an endpoint but a beginning: an invitation to continue examining how cultural spaces are produced, mediated, and transformed in environments where human agency, institutional intention, and machine processes increasingly converge.

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Support Materials for the Chapters

ANNEX A: List of word for filtering the Art Tweets.

Word	Hashtag
actor	#abstractart
aesthetic	#abstractartist
antique	#abstracted
archive	#abstraction
art	#abstractpainting
artist	#abstractphoto
artwork	#abstractphotography
artworks	#abstracts
atelier	#acrylic
audience	#aesthetic
author	#animation
avant-garde	#art
ballet	#artcall
baroque	#artcompetitions
batik	#artcontest
brocade	#artdayout
calligraphy	#arte
catharsis	#artfair
ceramics	#artgallery
choreographed	#artinfo
choreographer	#artist
choreography	#artnews
circus	#artofvisuals
cladding	#artshow
collage	#artwork
collection	#artworks
composition	#contemporaryart
conceptual	#contemporaryartsg
contour	#creative
costume	#dance
craft	#design
creative	#drawing
cultural	#drawings
culture	#exhibit

<u>Word</u>	<u>Hashtag</u>
curated	#fineart
curator	#graffitiart
daguerreotype	#graffiti
dance	#graphic
dancers	#illustration
debut	#ink
decorative	#lightspacetime
design	#makemoments
diptych	#makersmovement
director	#makersvillage
documentary	#makers
dramaturgy	#minimal
draw	#mobileartistry
drawing	#monochrome
etching	#mural
exhibit	#murals
exhibition	#myart
expressionism	#onlineart
festival	#onlineartgallery
figurative	#paint
galleries	#painting
gallery	#paintings
gouache	#pencil
graphic	#portrait
heritage	#portraits
hue	#portraiture
illustration	#sculpture
ink	#sgarts
installation	#sgevents
lacquer	#showcases
library	#singaporedancetheatre
lyrical	#singeporeart
movie	#sketch
museum	#spray
museums	#spraypaint

Word	Hashtag
opera	#streetart
orchestra	#streetartistry
paint	#wallart
painter	#watercolor
painting	#watercolour
palette	#worldarts
papier- mache	#Arty
pastel	#Artsy
pattern	#sgcontemporaryart
performance	#newcreation
performers	#filmcommunity
photocollage	#actorlife
pictorialism	#singaporeactors
pigment	#singaporetheatre
premieres	#creativeart
present	#creativeartists
presents	#liveonstage
print	#liveperformance
programmes	#artforacause
publishing	#theatre
release	#theaterlife
representation	
residency	
scene	
screenprint	
sculpture	
series	
showcases	
sing	
singaporeart	
singing	
sketch	
sketchbook	
sketching	

<u>Word</u>	<u>Hashtag</u>
skypainting	
stage	
theater	
theatre	
tickets	
triptych	
vernissage	
watercolor	

ANNEX B- List of the Art Venues with their features

name	time	Type of Action	Type of venue	Type of art	Outdoor / Indoor	Subsidy plan	Art Venues within 500m	Spatial Cluster	Heritage Building	Effect	Sentiment Analysis	Topic Diversity
*SCAPE	permanent	mixed	multipurpose	theatre/ dance	indoor	no	4	no	0	CONFIRMATION	0.1019936	0.9364453
11.12 Gallery	permanent	consumption	gallery	visual art	indoor	no	31	bbb	0	CONFIRMATION	0.1466595	0.8233483
AGF Theatre	temporary	consumption	stage	theatre/ dance	indoor	no	1	no	0	NEGATION	0.0283747	1.0445917
Alival Arts Centre	permanent	mixed	studio	theatre/ dance	indoor	framework-forartspace	5	no	1	CONFIRMATION	0.1383061	0.981449
ARNDT	permanent	consumption	gallery	visual art	indoor	no	5	gill-mann bar-racks	1	CONFIRMATION	0.1282479	0.9327204
Arnoldi Arts Club	permanent	mixed	organisation/ institution	visual art	indoor	no	19	gill-mann bar-racks	1	CONFIRMATION	0.0632081	1.0779408
Art and Print-making Studio	permanent	mixed	multipurpose	design	indoor	other	1	river	1	NEGATION	-0.05	1.2913325
Art Forum	permanent	consumption	gallery	visual art	indoor	no	8	no	0	NEGATION	-2	0.6727442
Art Galleries at NAFA	permanent	mixed	gallery	visual art	indoor	grant	39	bbb	0	CONFIRMATION	0.1112245	1.00422
Art Outreach	permanent	mixed	organisation/ institution	visual art	indoor	grant	19	no	0	NEGATION	0.1357438	1.1370627
Art Porters	permanent	consumption	gallery	visual art	indoor	no	6	no	0	NEGATION	0.1590909	1.1660385
Art Retreat	permanent	mixed	museum	visual art	indoor	no	2	no	0	NEGATION	-2	1.1720684
Art Science Museum	permanent	consumption	museum	visual art	indoor	no	4	no	1	HYPER	0.129791	0.9153743
Art Trove	permanent	consumption	museum	visual art	indoor	no	44	bbb	0	CONFIRMATION	0	1.010886
Art XChange Gallery	permanent	consumption	gallery	visual art	indoor	no	1	no	0	NEGATION	0.225	1.3608807
ArtBlue Studio	permanent	consumption	gallery	visual art	indoor	no	3	no	0	NEGATION	0.1957875	0.9778899
artcommune gallery	permanent	consumption	gallery	visual art	indoor	grant	41	bbb	0	CONFIRMATION	0.0406852	1.1890489
Artisall	permanent	mixed	multipurpose	visual art	indoor	no	23	no	0	CONFIRMATION	0.1436237	0.9010437
Artistry	permanent	consumption	multipurpose	visual art	indoor	no	7	no	0	CONFIRMATION	0.2	1.0654539
Arts@Pasir Ris	temporary	consumption	stage	theatre/ dance	indoor	artsforall	1	no	1	NEGATION	0.115729	1.1050605
Artspace@222	temporary	consumption	gallery	visual art	indoor	no	44	bbb	0	CONFIRMATION	-0.3179467	1.0220578
Artz Space	permanent	consumption	gallery	visual art	indoor	no	9	no	0	CONFIRMATION	0.0635086	0.9633639
Asian Civilisation Museum	permanent	consumption	museum	traditional art	indoor	grant	13	no	0	HYPER	0.05	0.8762692
Baba House	permanent	consumption	museum	traditional art	indoor	grant	6	no	0	NEGATION	0.0093468	1.2105895
Basheer Graphic Books	permanent	production	art services	design	indoor	no	41	bbb	0	CONFIRMATION	0	1.1826039
Blue Lotus Fine Art	permanent	consumption	gallery	visual art	indoor	no	17	no	0	NEGATION	0.20175	1.1475663
BooksActually	permanent	consumption	art services	design	indoor	grant	3	no	0	NEGATION	0.0416667	1.0637881
Bruno Gallery	permanent	consumption	gallery	visual art	indoor	no	9	no	0	NEGATION	0.0093468	0.8588633
Cape of Good Hope Art Gallery	permanent	consumption	gallery	visual art	indoor	no	41	bbb	0	CONFIRMATION	-0.1785714	1.1826833

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centre 42	permanent	consumption	stage	theatre/dance	indoor	artcentrescheme	44	bbb	1	NEGATION	0.0543731	1.0486659
Chan + Hori Contemporary	permanent	consumption	gallery	visual art	indoor	no	19	gillmann barracks	1	NEGATION	0	0.9507405
Chinatown Heritage Centre	permanent	consumption	muscum	traditional art	indoor	grant	20	china-town	0	CONFIRMATION	0.0681818	1.1407984
chinese calligraphy society of singapore	permanent	production	studio	traditional art	indoor	artcentrescheme	46	bbb	0	NEGATION	0.2071429	1.1124137
chinese theatre circle ltd	permanent	production	studio	traditional art	indoor	arthousingscheme	20	china-town	1	NEGATION	0.2129371	0.9685118
Collectors Contemporary	permanent	consumption	gallery	visual art	indoor	no	9	no	0	NEGATION	0	1.0300699
DANCE ENSEMBLE SINGAPORE	permanent	production	studio	theatre/dance	indoor	artcentrescheme	46	bbb	0	NEGATION	0.0944293	1.1828699
DaTang Fine Arts	permanent	consumption	gallery	visual art	indoor	no	19	no	0	NEGATION	0.1658067	0.9658568
DBS Arts Centre STB	permanent	mixed	stage	theatre/dance	indoor	no	9	no	0	NEGATION	0.1	1.096354
DECK	permanent	mixed	multipurpose	all	indoor	no	38	bbb	0	NEGATION	0.1540231	1.0285302
Design Centre	permanent	mixed	multipurpose	design	indoor	no	36	bbb	1	CONFIRMATION	0.0846936	1.052666
Dhoby Ghaut Green - Amphitheatre	temporary	consumption	stage	theatre/dance	outdoor	no	12	no	0	CONFIRMATION	0.1274038	0.9795394
Di Legno Gallery	permanent	consumption	gallery	visual art	indoor	no	2	no	0	NEGATION	-2	0.9385719
Domain Art Gallery	permanent	consumption	gallery	visual art	indoor	no	18	bbb	0	CONFIRMATION	0.1168845	1.0345972
drama box ltd	permanent	production	studio	theatre/dance	indoor	arthousingscheme	20	china-town	1	CONFIRMATION	0.1264047	1.140797
Drama Centre	permanent	mixed	stage	theatre/dance	indoor	artspace	38	bbb	1	HYPER	0.1447815	0.9297966
Edit Life	permanent	consumption	gallery	visual art	indoor	no	7	no	0	CONFIRMATION	0.0458333	1.1160831
Emily Hill	permanent	mixed	organization/institution	visual art	outdoor	artspace	25	no	1	CONFIRMATION	0.2752565	0.9093832
er woo amateur musical & dramatic association	permanent	production	studio	theatre/dance	indoor	arthousingscheme	21	china-town	1	NEGATION	0.0196429	0.9136141
Esplanade Theatres on the Bay Concert Hall	permanent	consumption	stage	theatre/dance	indoor	grant	14	no	1	HYPER	0.1146944	0.9964808
Esplanade Outdoor	permanent	consumption	stage	all	outdoor	other	11	no	1	CONFIRMATION	0.25	0.910801
Esplanade Xchange	permanent	consumption	stage	theatre/dance	indoor	grant	26	no	0	HYPER	0.3	1.0245053
Euroasian Heritage Centre	permanent	consumption	muscum	traditional art	indoor	no	4	no	0	NEGATION	0.1436364	0.9154045
F1 Pit Building	temporary	consumption	multipurpose	all	indoor	other	2	no	0	CONFIRMATION	0.1618182	0.981694
Forest Rain Gallery	permanent	consumption	gallery	visual art	indoor	no	41	bbb	0	NEGATION	0	1.204876
Fort Canning Green	temporary	consumption	stage	all	outdoor	other	31	bbb	1	CONFIRMATION	0	1.0625412
Fost	permanent	consumption	gallery	visual art	indoor	no	19	gillmann barracks	1	NEGATION	-2	1.1350638
Fuk Tak Chi Museum	permanent	consumption	muscum	traditional art	indoor	other	23	no	0	NEGATION	-2	0.9117614

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Gajah Gallery	permanent	consumption	gallery	visual art	indoor	no	4	no	0	NEGATION	0.208805	1.1950368
Galeri Utama	temporary	consumption	gallery	visual art	indoor	other	15	no	0	NEGATION	-0.0628571	0.9911669
Galerie Segan & Art	permanent	consumption	gallery	visual art	indoor	no	6	no	0	NEGATION	0.1418831	0.8146634
Gallery HUUE	permanent	consumption	gallery	visual art	indoor	no	7	no	0	NEGATION	0	0.8146687
Gallery Kristel Martin	permanent	consumption	gallery	visual art	indoor	no	4	no	0	NEGATION	0.0138889	1.195027
gamelan asmaradana Ild	permanent	production	studio	traditional art	indoor	arthous-ingscheme	11	littleindia	1	NEGATION	0.1314098	0.9622426
Gan Heritage Centre	permanent	consumption	museum	traditional art	indoor	other	17	no	0	NEGATION	0.0740693	1.0033056
Genexis Theatre	permanent	consumption	stage	theatre/ dance	indoor	no	1	no	0	NEGATION	0.1262987	1.0334949
Gillman Bar-racks	permanent	production	studio	visual art	indoor	grant	19	gill-mann bar-racks	1	NEGATION	0.1262987	1.001802
Gillman Bar-racks - CCA	permanent	production	organisation/ institution	visual art	indoor	grant	19	gill-mann bar-racks	1	NEGATION	0.2565657	1.0870452
Global Auction	permanent	consumption	gallery	visual art	indoor	no	1	no	0	NEGATION	0.0624053	1.0638003
Goethe-Institut Singapur	temporary	mixed	organisation/ institution	all	indoor	no	10	no	0	NEGATION	0	1.2057639
Goodman Arts Centre	permanent	mixed	studio	all	indoor	framework-forartspace	16	no	0	NEGATION	0.0828823	1.0421683
Grey Projects	permanent	consumption	gallery	visual art	indoor	grant	3	no	0	CONFIRMATION	0	0.949405
Haque Centre of Acting and Creativity	permanent	production	studio	theatre/ dance	indoor	no	9	no	0	NEGATION	-2	1.1108016
Haich Art Project	permanent	consumption	gallery	visual art	indoor	no	5	no	0	NEGATION	0.1320106	1.0822911
Haw Pah Villa	temporary	mixed	multipurpose	traditional art	outdoor	other	1	no	1	NEGATION	-2	1.0599178
HDB Gallery	permanent	consumption	museum	society	indoor	other	2	no	0	NEGATION	0.1169173	1.0531939
HDB Hub - HDB Hub Convention Centre	temporary	consumption	stage	theatre/ dance	indoor	other	3	no	0	NEGATION	0.1	1.0529945
Immagini Art Gallery	permanent	consumption	gallery	visual art	indoor	no	3	no	0	NEGATION	0.0406852	0.7802055
Instine	permanent	consumption	multipurpose	visual art	indoor	no	13	no	0	NEGATION	-2	1.0100835
Institute of Contemporary Arts Singapore (ICAS), LA-SALLE College of the Arts	permanent	consumption	organisation/ institution	visual art	indoor	grant	5	no	0	NEGATION	0.1767007	1.0224819
Intersections	permanent	consumption	gallery	visual art	indoor	no	5	no	0	NEGATION	0.2488889	1.0600433
ION Art Gallery	permanent	consumption	gallery	visual art	indoor	other	9	no	0	HYPER	0.1599421	1.0860973
iPRECIATION	permanent	consumption	gallery	visual art	indoor	grant	14	no	0	CONFIRMATION	0.1010417	0.9765751
Italian Cultural Institute	permanent	production	organisation/ institution	all	indoor	other	25	no	0	NEGATION	0.25	0.9435424
Japan Creative Centre	permanent	consumption	organisation/ institution	all	indoor	other	11	no	0	NEGATION	-2	1.1787052

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KULT 3D	permanent	consumption	gallery	visual art	indoor	no	24	no	0	CONFIRMATION	-0.3471591	0.9045432
Land Transport Gallery	permanent	consumption	museum	society	indoor	other	10	no	0	NEGATION	0.0834915	1.1876416
Larassati Auctioneers	permanent	consumption	art services	all	indoor	no	10	no	0	NEGATION	0.2491342	1.1855381
Lasalle	permanent	education	organisation/institution	all	indoor	other	38	no	0	NEGATION	0.1404161	0.9444439
Lee Kong Chian Natural History Museum	permanent	consumption	museum	visual art	indoor	grant	3	no	1	CONFIRMATION	0.0851852	0.5648041
Linda Gallery	permanent	consumption	gallery	visual art	indoor	no	2	no	0	NEGATION	0.1666667	1.1565145
London Calling	permanent	consumption	gallery	visual art	indoor	no	6	no	0	NEGATION	0.05	1.1108456
LUDO Gallery	permanent	consumption	gallery	visual art	indoor	no	41	bbb	0	NEGATION	0	1.2049148
MAD Museum of Art & Design	permanent	consumption	museum	visual art	indoor	no	9	no	0	CONFIRMATION	0.0196429	0.9600232
Malay Heritage Centre	permanent	consumption	museum	traditional art	indoor	other	5	no	1	CONFIRMATION	0	0.8589655
Mandala Fine Art Gallery	permanent	consumption	gallery	visual art	indoor	no	1	no	0	NEGATION	0.0521739	1.1523525
Marina Bay Sands Expo and convention centre	temporary	consumption	multipurpose	all	indoor	no	5	no	0	HYPER	0.0645926	0.9630685
Marina South Pier	temporary	production	studio	visual art	indoor	arthousingscheme	1	no	1	NEGATION	0	1.1200783
maya dance theatre ltd	permanent	production	studio	traditional art	indoor	arthousingscheme	11	littleindia	1	NEGATION	-2	0.9459558
Maya Gallery	permanent	consumption	gallery	visual art	indoor	no	2	no	0	NEGATION	-2	0.7601649
Mazel Galerie	permanent	mixed	gallery	visual art	indoor	no	8	no	0	NEGATION	0.1104886	1.2690873
Media, Arts and Design School (MAD) (SP)	permanent	education	organisation/institution	design	indoor	other	8	no	0	NEGATION	-2	0.8612832
Merlin Gallery	permanent	consumption	gallery	visual art	indoor	no	41	bbb	0	NEGATION	0.1338794	1.2051323
Metakaos	permanent	consumption	gallery	visual art	indoor	no	1	no	0	NEGATION	-2	0.9523852
Miaja Gallery	permanent	consumption	gallery	visual art	indoor	no	3	no	0	NEGATION	0.078343	0.7822159
Mint Museum of Toys	permanent	consumption	museum	design	indoor	other	34	no	0	CONFIRMATION	0.2427198	0.8387447
Mizuma Gallery	permanent	consumption	gallery	visual art	indoor	no	19	no	0	NEGATION	0.0846936	1.0573614
Mulan Gallery	permanent	consumption	gallery	visual art	indoor	other	31	bbb	0	CONFIRMATION	0.073463	0.9152109
Nanyang Academy of Fine Arts (NAFA)	permanent	education	organisation/institution	all	indoor	no	39	bbb	0	CONFIRMATION	0.0666667	1.0063625
Nanyang Academy of Fine Arts Campus 2	permanent	education	organisation/institution	all	indoor	no	44	bbb	0	NEGATION	0.5	1.2275372
Nanyang Academy of Fine Arts Campus 3	permanent	education	organisation/institution	all	indoor	no	38	no	0	CONFIRMATION	0.1333333	1.048936
Nanyang Polytechnic	permanent	education	organisation/institution	design	indoor	no	1	no	0	NEGATION	-0.36	0.9746988
National Gallery	permanent	consumption	museum	visual art	indoor	grant	22	no	1	HYPER	0.2113042	0.9502993

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National Institute of Education _ The Art Gallery	temporary	consumption	stage	theatre/ dance	indoor	other	1	no	0	NEGATION	0.0882197	1.0861546
National Library	permanent	consumption	organisation/ institution	all	indoor	other	38	bbb	1	HYPER	0.2488889	0.929794
National Museum of Singapore	permanent	consumption	museum	visual art	indoor	grant	42	bbb	1	HYPER	0.0761536	0.9376398
Ngse Ann Cultural Centre	permanent	consumption	museum	visual art	indoor	no	10	no	0	NEGATION	-2	1.0995525
NUS museum	permanent	consumption	museum	visual art	indoor	other	3	no	0	CONFIRMATION	0.1590909	0.9474791
Objectifs	permanent	mixed	studio	visual art	indoor	artcentrescheme	38	bbb	1	CONFIRMATION	0.1284448	1.0612203
OCBC Art Space	permanent	mixed	multipurpose	visual art	indoor	no	15	no	0	NEGATION	-0.1785714	1.1505847
Ode To Art	permanent	consumption	gallery	visual art	indoor	no	35	no	0	NEGATION	0.1194298	1.0584785
One East Asia	permanent	consumption	gallery	visual art	indoor	no	10	no	0	NEGATION	0.1760417	1.1822413
ONE-TWO-SIX Cairnhill Arts Centre	permanent	production	studio	theatre/ dance	indoor	arthousingscheme	8	no	0	NEGATION	-0.0064327	1.1129267
Opera Gallery	permanent	consumption	gallery	visual art	indoor	no	9	no	0	CONFIRMATION	0.1411395	1.0619615
OTA fine Arts	permanent	consumption	gallery	visual art	indoor	grant	19	gillmann barracks	1	NEGATION	-2	0.6918661
Our Gallery at Taman Jurong	permanent	production	multipurpose	visual art	indoor	artsforall	1	no	0	NEGATION	-2	0.9878935
Padang	temporary	consumption	stage	all	outdoor	other	30	no	0	CONFIRMATION	0.1098214	1.0640642
Partners & Mucciaccia	permanent	consumption	gallery	visual art	indoor	no	19	gillmann barracks	1	NEGATION	0.1011262	0.9507098
Peranakan Museum	permanent	consumption	museum	visual art	indoor	grant	32	bbb	1	CONFIRMATION	0.0283747	0.9246456
Phunk Studio	permanent	production	studio	all	indoor	no	1	no	0	NEGATION	0.0068452	0.9843453
PIA Preserve in Aesthetics	permanent	production	art services	all	indoor	no	2	no	0	NEGATION	-2	1.1720684
ping sheh	permanent	production	studio	theatre/ dance	indoor	arthousingscheme	20	china-town	1	NEGATION	0.0537426	0.9426042
Raffles Hotel _ Jubilee Hall	permanent	consumption	stage	theatre/ dance	indoor	no	45	no	1	CONFIRMATION	0.1688828	0.9481197
Red Dot design Museum	permanent	consumption	museum	design	indoor	grant	3	no	0	NEGATION	-0.0709135	0.9564476
REDSEA Gallery	permanent	consumption	gallery	visual art	indoor	no	2	no	0	NEGATION	0.5	1.1525498
Republic Polytechnic (STA)	permanent	education	organisation/ institution	design	indoor	other	1	no	0	CONFIRMATION	0	0.8899915
Richard Koh Fine Art	permanent	consumption	gallery	visual art	indoor	no	19	no	0	NEGATION	0.097619	1.1178183
Sabiana Paoli Art Gallery	permanent	consumption	gallery	visual art	indoor	no	9	no	0	NEGATION	0.0572749	1.0970608
SAM at 8Q	temporary	mixed	museum	visual art	indoor	grant	43	bbb	0	CONFIRMATION	0.0833333	1.0409317
School of Art, Design and Media (NTU)	permanent	education	organisation/ institution	visual art	indoor	no	2	no	0	CONFIRMATION	0.22	0.8509268
School of the Arts Singapore (SOTA)	permanent	education	organisation/ institution	all	indoor	no	41	no	0	CONFIRMATION	0.0451269	0.9749783

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Selegie Arts Centre	permanent	production	studio	theatre/ dance	indoor	arthous-ingscheme	39	bbb	1	CONFIRMATION	0.110024	1.0443016
ShanghART	permanent	consumption	gallery	visual art	indoor	no	19	gill-mann barracks	1	NEGATION	-2	1.2559803
shicheng calligraphy + harmonica aficionados society	permanent	production	studio	visual art	indoor	arthous-ingscheme	21	china-town	0	NEGATION	0.1560985	1.0624402
Shophouse 5	permanent	mixed	gallery	visual art	indoor	no	1	no	0	NEGATION	0.0818868	1.0182812
Silverlens Gillman Barracks	permanent	consumption	gallery	visual art	indoor	no	19	gill-mann barracks	1	NEGATION	0	1.0765365
Singapore Art Museum	permanent	consumption	muscum	visual art	indoor	grant	46	bbb	1	HYPER	0	1.0387836
Singapore Calligraphy Centre	permanent	production	organisation/ institution	traditional art	indoor	other	45	bbb	0	NEGATION	0.1322727	1.2043141
Singapore Chinese Chamber of Commerce	temporary	consumption	stage	theatre/ dance	indoor	no	25	bbb	0	NEGATION	-2	1.0249627
Singapore City Gallery	permanent	consumption	muscum	society	indoor	other	22	no	0	CONFIRMATION	0	0.9306997
Singapore Dance Theatre	permanent	mixed	studio	theatre/ dance	indoor	grant	37	bbb	0	CONFIRMATION	0.058053	0.9633527
Singapore Discovery Centre	permanent	consumption	muscum	society	indoor	other	1	no	0	NEGATION	0.1616667	1.2187809
singapore indian fine arts society	permanent	production	studio	visual art	indoor	arthous-ingscheme	1	no	1	NEGATION	-2	0.747183
Singapore Musical Box Museum	permanent	consumption	muscum	visual art	indoor	no	22	no	0	CONFIRMATION	0.5	1.1376452
Singapore Philatelic Museum	permanent	consumption	muscum	design	indoor	no	15	bbb	0	CONFIRMATION	0.0698081	0.9478412
Singapore University of Technology and Design	permanent	education	organisation/ institution	design	indoor	other	1	no	0	CONFIRMATION	0.0543182	1.0470332
Singapore Wind Symphony	permanent	production	studio	traditional art	indoor	community/ sports facilities scheme	1	no	0	NEGATION	-2	1.0013275
Sky One Art Gallery	permanent	consumption	gallery	visual art	indoor	no	2	no	0	NEGATION	-2	1.1681734
SOCIETE GENERALE Gallery, Alliance Francaise	temporary	consumption	gallery	visual art	indoor	no	1	no	0	NEGATION	0.0266651	1.044634
Sotheby Auction	permanent	consumption	art services	all	indoor	no	9	no	0	NEGATION	0.113776	0.8621255
stamford arts centre	permanent	production	studio	theatre/ dance	indoor	artcentres-cheme	33	bbb	1	NEGATION	0.2005346	1.0362678
STPI	permanent	consumption	gallery	visual art	indoor	no	6	no	1	NEGATION	0.0944444	1.0686951
Stuttgart Blackforest Boutique café	permanent	consumption	multipurpose	visual art	indoor	no	38	no	0	NEGATION	-0.0666667	1.2378802
Sun Yat Sen Nanyang Museum	permanent	consumption	muscum	visual art	indoor	no	2	no	0	NEGATION	0.1116559	1.0336065
Sundaram Tagore Gallery	permanent	consumption	gallery	visual art	indoor	grant	19	gill-mann barracks	1	NEGATION	0.1325188	1.1034866
Supremama Gillman Barracks	permanent	consumption	gallery	design	indoor	no	19	gill-mann barracks	1	NEGATION	0.2274038	1.0381316

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TAKSU	permanent	consumption	gallery	visual art	indoor	no	1	no	0	NEGATION	0	1.2043626
TAS Theatre Co (S) Ltd	permanent	production	studio	theatre/ dance	indoor	arthous-ingscheme	19	china-town	0	CONFIRMA-TION	0.135524	1.0339854
Ice at The Gallery	permanent	consumption	multipur-pose	visual art	indoor	no	11	no	0	NEGATION	0.0927128	1.2687051
Temasek Polytechnic	permanent	education	organi-sation/ institution	design	indoor	no	2	no	0	NEGATION	0.2291667	1.2122606
The Art Space @ Suntec	permanent	consumption	gallery	visual art	indoor	no	13	no	0	HYPER	0.1654935	0.679693
The Arts House	permanent	mixed	multipur-pose	all	indoor	artspace	15	no	0	CONFIRMA-TION	0.37	1.0248058
The Float at Marina Bay	temporary	consumption	stage	all	outdoor	other	6	no	0	CONFIRMA-TION	0.1891214	1.0127735
The Fullerton Hotel	permanent	consumption	gallery	visual art	indoor	no	10	no	0	CONFIRMA-TION	0.0928571	0.930997
The Glasgow school of art (Sf)	permanent	education	organi-sation/ institution	design	indoor	other	2	no	0	NEGATION	0.0805556	0.978377
The Indian Heri-tage Centre	permanent	consumption	museum	tradition-al art	indoor	other	12	no	0	CONFIRMA-TION	0.2369048	0.8800412
The Intan	permanent	consumption	museum	visual art	indoor	no	3	no	0	NEGATION	0.0611111	1.0348204
The Luxe Art Museum	permanent	consumption	museum	visual art	indoor	no	29	no	0	NEGATION	0.0887488	0.9532424
The Necessary Stage	permanent	production	studio	theatre/ dance	indoor	community/ sports facili-ties scheme	1	no	0	NEGATION	0.1058031	0.949279
The Peach Tree	permanent	consumption	gallery	visual art	indoor	no	9	no	0	NEGATION	-2	1.1779797
The Private Museum	permanent	consumption	museum	visual art	indoor	no	44	bbb	0	CONFIRMA-TION	0.1	1.0065203
The Ritz-Carlton	permanent	consumption	multipur-pose	visual art	indoor	no	7	no	0	CONFIRMA-TION	0.1019577	1.0243186
The Singapore Conference Hall Concert Hall	temporary	consumption	stage	theatre/ dance	indoor	no	4	no	0	NEGATION	0.0340909	1.0121292
The Substation	permanent	mixed	studio	visual art	indoor	arthous-ingscheme	32	bbb	1	CONFIRMA-TION	0.1216435	0.9178267
THE THEATRE PRACTICE LTD	permanent	consumption	studio	theatre/ dance	indoor	artcentres-cheme	46	bbb	1	NEGATION	-0.0566667	1.1121163
Theatreworks	permanent	consumption	stage	theatre/ dance	indoor	no	6	river	0	CONFIRMA-TION	0.0632081	1.0251181
Third Floor Hermes	permanent	consumption	multipur-pose	visual art	indoor	no	13	no	0	NEGATION	-0.0041667	1.1432108
TOKYO GAL-LERY by MUSE COLLECTION	permanent	consumption	gallery	visual art	indoor	no	28	no	0	CONFIRMA-TION	0.0363636	0.9992013
toy factory productions ltd	permanent	production	studio	theatre/ dance	indoor	arthous-ingscheme	20	china-town	0	NEGATION	0.0593182	0.9135844
UOB Art Gallery	permanent	consumption	multipur-pose	visual art	indoor	no	9	no	0	NEGATION	0	1.0251628
Utterly Art	permanent	consumption	gallery	visual art	indoor	no	20	no	0	NEGATION	0.0543731	1.0284012
Very Special Arts Singapore	permanent	production	studio	visual art	indoor	community/ sports facili-ties scheme	1	no	0	NEGATION	0.04375	1.1790976
Victoria Theatre & Victoria Concert Hal	permanent	consumption	stage	theatre/ dance	indoor	artspace	14	no	1	CONFIRMA-TION	-0.0729167	0.8361609
Visionairs Gallery Asia	permanent	consumption	gallery	visual art	indoor	no	35	bbb	0	CONFIRMA-TION	0.0940413	1.0276989
Visual Arts Centre	permanent	consumption	gallery	visual art	indoor	no	20	no	0	CONFIRMA-TION	0	1.002279

name	time	Type of Action	Type of venue	Type of art	Outdoor / Indoor	Subsidy plan	Art Venues within 500m	Spatial Cluster	Heritage Building	Effect	Sentiment Analysis	Topic Diversity
Volvo Art Loft	permanent	consumption	multipurpose	visual art	indoor	no	1	no	0	NEGATION	-2	0.9913995
wld rice ltd	permanent	production	studio	theatre/dance	indoor	arthousingscheme	11	littleindia	0	NEGATION	0	0.9513674
White Space Art Asia	permanent	consumption	gallery	visual art	indoor	no	9	no	0	CONFIRMATION	0.025	1.0136325
xin sheng poets society	permanent	production	studio	traditional art	indoor	arthousingscheme	9	chintown	0	NEGATION	0.0533333	0.9013648
Y2Arts Gallery	permanent	consumption	gallery	visual art	indoor	no	1	no	0	NEGATION	0.5	0.994287
Yang Gallery	permanent	consumption	gallery	visual art	indoor	no	14	no	0	NEGATION	0.04375	1.1024425
Yavuz Gallery	permanent	consumption	gallery	visual art	indoor	grant	19	no	0	CONFIRMATION	-0.0729167	1.0778335
YST Conservatory of Music	permanent	education	organization/institution	traditional art	indoor	no	3	no	0	NEGATION	0.065625	1.0620218

ANNEX C- District metrics

Area Name	PC	EI
ANG MO KIO	-1.0	0
BUKIT MERAH	-0.7	8.3
DOWNTOWN CORE	0.6	1.5
GEYLANG	-1.0	0
JURONG WEST	-1.0	0
KALLANG	-1.0	0
MARINE PARADE	-0.6	0
MUSEUM	0.5	0.7
NEWTON	-1.0	0
NOVENA	-1.0	0
ORCHARD	1.0	0
OUTRAM	-0.5	0
PASIR RIS	-1.0	0
QUEENSTOWN	-0.3	6.3
RIVER VALLEY	-1.0	0
ROCHOR	0.1	0.8
SINGAPORE RIVER	0.0	9.4
STRAITS VIEW	-1.0	0
TAMPINES	-0.5	0
TANGLIN	-1.0	0
TOA PAYOH	-1.0	0
WESTERN WATER CATCHMENT	0.0	0
WOODLANDS	1.0	0