Title: BUILDING A CONTENT REPOSITORY ON THE ARTS FOR A NATION: THE DEVELOPMENT OF "ARTSCULTURESG" BY THE NATIONAL LIBRARY BOARD OF SINGAPORE

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Abstract:

The Ministry of Information, Communications and the Arts (MICA) of Singapore initiated the Arts and Culture Strategic Review (ACSR), which is a strategic plan intended to chart the nation's cultural development for the next fifteen years, in 2010. Aimed at increasing public participation in the arts and cultural arena from 40% to 80% in consumption and from 20% to 50% in active engagement undertakings by 2025, the ACSR lists a host of projects that are to be executed by several government agencies over a period of 6 years (August 2011-March 2017). One of the projects under this review is the creation of a national online social portal on the arts and cultural scene in Singapore, temporarily christened "ArtsCultureSG", the development of which will be spearheaded by the National Library Board (NLB) of Singapore. In its first phase, the project is at its core a collaboration of five bodies: MICA, NLB, the National Heritage Board (NHB), National Art Council (NAC) and the People's Association (PA).

Intended as a national content repository for the arts for Singapore, ArtsCultureSG will be built to aggregate all content and activities related to the arts and cultural scene in Singapore. This is so that end-users can search, find and browse all Singapore arts-related information via a single platform. In embarking in the development of the project, the NLB will be looking to put in place an intensive content development plan that includes its own and other potential partner institutions' existing content, old and new digitization efforts, original content creation and documentation projects and inter-organisational collaborations. Current content already earmarked for ArtsCultureSG include selected collections from twenty-five libraries and seven museums or heritage institutions. The content amassed for the portal will eventually also be curated by art librarians in the National Library into coherent narratives that can help end-users discover information in a more accessible way.

Another component of ArtsCultureSG encompasses the enabling of individual profile creation by end-users on the site. This allows for end-users to use the site as a showcase and marketing platform if they wish to share their own creative output, as well as a social space where they can interact in and collaborate with others online. The social interactivity of the site is intended to encourage end-users' active participation in ArtsCultureSG, as well as invite public contributions into building the national content repository. The portal also has a time-arrayed display feature that can help one visualize the development of, say, a particular artist on the site over a period of time.

This paper will detail and discuss the development of this project, which is currently in its planning and developmental stage, and will be launched in late 2012.

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Background

Singapore has come a long since its days as a sleepy fishing village in the 18th century to the bustling metropolis of 5.1837 million[1] that it is today. As a young nation (Singapore became a sovereign republic in 1965), the country has spent its formative years focusing on the development of strong governance, excellent infrastructure and education and sound economic policies. In building up the fundamental blocks for an efficient and prosperous city state, present day Singapore is one of the world's busiest ports [2] and top financial centres[3] and is ranked fourth in the world as one of the most desirable places to work in in a survey conducted by Hydrogen Group Plc and the ESCP, reported in 2012[4].

However, the government of Singapore is not content to just be a wealthy and successful economic hub. Starting from about 3 decades back[5], the nation has launched at least three government initiated plans dubbed the Renaissance City Plans (RCP) I, II and III, in concerted efforts to raise the profile of the arts in Singapore. Following the conclusion of the RCP initiatives, the Arts and Culture Strategic Review is envisioned to replace the former, and is being planned as a continuum that would most likely last into 2025. In continuing to support and encourage the growth of the arts and cultural sectors in Singapore, the city state is signaling a departure from its former singular focus on concrete gains to include softer unquantifiable goals. In doing this, the government hopes to groom the city into a cultural capital, similar to Chang'an of the Tang Dynasty in China, 19th century Paris and post World War II New York, and foster a stronger sense of identity, belonging and social cohesiveness among its population.

The Arts and Culture Strategic Review, 2012-2016

In March 2010, the Ministry of Information, Communications and the Arts (MICA) of Singapore initiated a strategic plan that is intended to chart Singapore's cultural development for the next fifteen years. This strategic plan was christened the Arts and Culture Strategic Review (ACSR), and is aimed at increasing public participation in the arts and cultural arena from 40 to 80 percent in consumption and from 20 to 50 percent in active engagement undertakings by 2025. From May to November 2011, a series of public consultation channels were launched, from focus group discussions and online feedback to public surveys and forums were held to gather feedback from different user groups who may or may not be avid arts followers or practitioners.

Four government agencies: the National Arts Council (NAC), the National Heritage Board (NHB), the National Library Board (NLB) and the People's Association (PA) also came together in the same year to propose a suit of programmes that are aligned to the strategic directions of ACSR, as given below:
1) Bring arts and culture to everyone, everywhere, every day
2) Build capabilities to achieve excellence

One of the projects proposed by the NLB to MICA under this review is the creation of a national online social portal on the arts and cultural scene in Singapore, temporarily christened the "ArtsCultureSG" portal[6]. The project received positive feedback[7] during the public consultation phase of the review, and has since been approved for development in July-August 2011.

The online national portal for the arts, ArtsCultureSG

Spearheaded by the NLB, the development of the ArtsCultureSG portal is a multi-agency collaborative project that is scheduled to span over a period of five and a half years, beginning from July 2011 to March 2017. The national portal is envisioned as "a perpetual online bank of arts and cultural experiences of Singapore", targeted to aggregated all content, activities and communities related to the arts and culture in Singapore into a single online platform. It aims to provide end-users with ways to connect and engage with others who may have similar interests in the arts. Arts-related content and information aggregated and made available on this portal, would include a database of available events and activities, as well as information and resources aggregated from several participating institutions into a one-stop search engine, in order to allow end-users to find and retrieve information on the arts in Singapore via a single platform. The intention of the portal is to promote awareness among end-users and encourage user participations in the arts in the country.

Prior efforts to reach out to the arts communities and average consumers of the arts through public consultation channels such as the ACSR online public consultation platform[7] and direct communications with artists, arts groups and arts consumers in Singapore have provided feedback that highlighted a sore lack in the availability of authoritative resources related to the arts in Singapore. Current end-users seeking for information on the arts in Singapore tend to also encounter very scattered and disparate experiences in their information discoveries online. There is currently no single platform that aggregates information on the arts in a reasonable enough depth to enable end-users to depend on any one single provider, and the transient nature of most web information on practicing artists in Singapore also poses a problem in continued access to information for all, as in the case of the repeated evolution of MySpace, which caused the loss of deposited information and an exodus of end-users from the site due to unpopular implementations.

Thus, in developing the service concept for the portal development, the value propositions proposed for the project followed as such:
   a) To build a "national arts and culture content base" for Singapore
   b) To build an online platform that can encourage the generation of new experiences of the arts among end-users through the discovery of the experiences of others
   c) To provide a "time-based visual representation" of the arts' development in Singapore
The above were posited mainly to bridge the current gap highlighted by industry practitioners and interested stakeholders, as well as the average art enthusiasts or students. Another main consideration taken in by the project team is the long-term preservation and continued open access of related information and institutional collections that will eventually become a part of the nation's valuable cultural heritage.

In striving for the first value proposition put forth, ArtsCultureSG will be built to aggregate information and records from several institutions and organisations related to the arts in Singapore.

This will include government institutions, museums, libraries, arts groups and organisations as well as events and ticketing providers etc. The aggregated content and activities, besides being showcased in curated features on ArtsCultureSG, will be fed into a one-stop search engine in the portal that can enable users to search, find and browse all Singapore arts-related information through a single platform.

To fulfil the second value proposition, end-users will be able to create individual profiles on the site and build their portfolios and networks as well as share content and discussions with other end-users frequenting the portal. For practitioners in the creative arts, this will provide them with an additional online marketing platform through which they can showcase their activities and works, much like how users do now through Facebook, YouTube, Flickr and a host of other online platforms. For the casual consumers, this portal can facilitate the discovery of arts-related information through a single platform. They can also share their own content (e.g. photographs, videos) and follow other favoured artists or organisations to obtain news updates on their activities. Through the interactions of users on the portal detailing their experiences and creative outputs, it is hoped that other end-users stumbling onto the site may also find the information enlightening and interesting enough to encourage them to embark on their own creative journeys and experiences, thereby triggering a self-sustaining cycle that can hopefully perpetuate the growth of the arts in Singapore.

The portal's third value proposition of the portal was written to enable the portal to preserve information over time and provide end-users with visual representations of the evolution or development of an art-form, artist, organisation or festival on the website. In this sense, the idea has similar intentions to Facebook's "Timeline" feature[8] which archives end-users' activities in Facebook to form a collection of their lives' memorable activities on the website. However, a conscious distinction is also made in ArtsCultureSG between the profiles of consumers and creative producers (e.g. artists, organisations). As artists contributes to ArtsCultureSG by building their portfolios in the website, their profiles will be aggregated into a central directory that allows end-users to browse through and find out who are the active players in the arts landscape in Singapore. This is to facilitate the discovery of artists and organisations involved in the arts in Singapore by end-users of the site, and provide artists, organisations and interest groups active in the arts to showcase their works and activities in a more accessible way online.

The structure of the ArtsCultureSG portal then is divided into three major components:
  i)   A national arts and cultural events calendar
  ii) A database of creative producers or arts organisations in Singapore (e.g. arts practitioners, musicians, designers, art groups)
  iii) Introductory pages on the different genres of the arts

The arts and cultural events calendar in the portal is intended as an aggregated events directory from several sources, both from institutional and commercial sites as well as independent arts groups in Singapore. The second component of the site will be built jointly by resources from NLB and participating institutions like the NAC, NHB and other art museums and libraries in Singapore, as well as end-users who will frequent the site and build their own profiles and portfolios in the portal itself.

In each event and creative producer or organisation record (mentioned in points (i) and (ii) above) created in the portal, the portal system will be built to retrieve and recommend related resources from participating libraries and art museums' collections to lead users to further explore the myriad of resources available in the different institutions in Singapore. End-users can also utilise an central search feature that can search simultaneously across the portal's events directory, creative producers and organisations directories, as well as the aggregated collections from participating arts libraries, museums and archives in Singapore. In this way, the portal proposes two discovery trajectories for end-users using the site: they can discover library and museum collections via events and creative producers or organisations' profiles they retrieve, or vice versa.
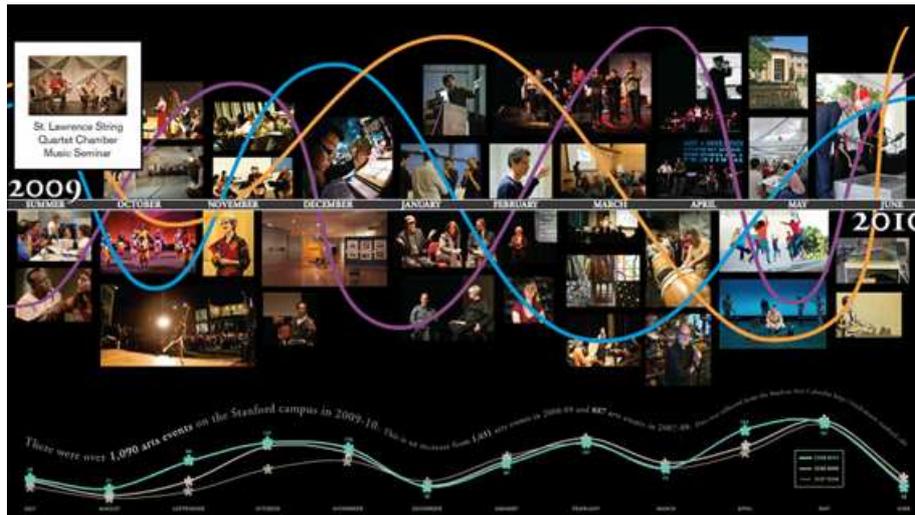

Figure 1: *Illustration showing the proposed "time-based" visual representation in ArtsCultureSG.*
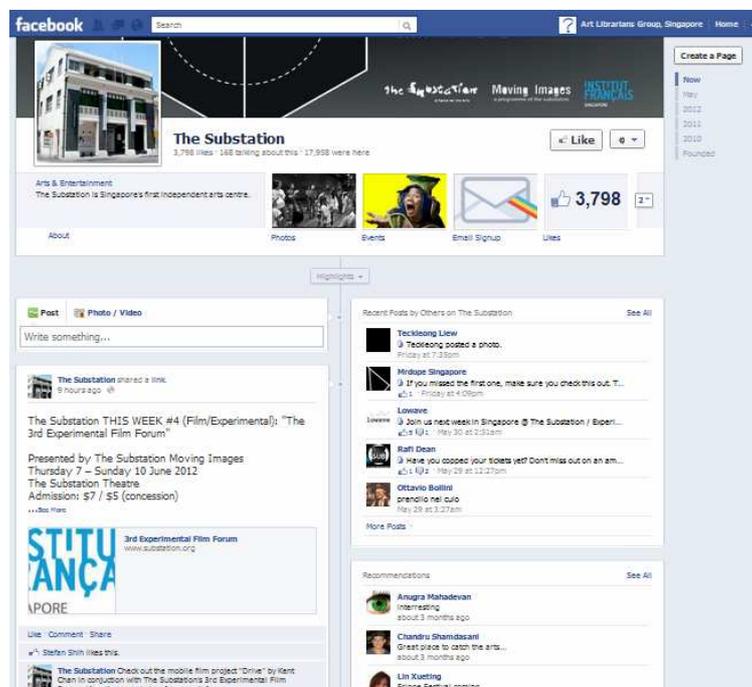

Figure 2: *Facebook's Timeline feature in user profiles on the site. The project's time-based visual representation feature has similar intentions to this feature in Facebook*

A measure of curation from NLB staff and participating institutions' appointed administrators will also take place in the portal. In the third section of the site featuring the different genres of the arts, active curation on the parts of the portal administrators to select and showcase artists and events as well as special collections that are relevant and prominent in the different fields will be especially required and essential to the site. As the trending issues in the arts are constantly changing, the rate of updating for the site's genre sections will also need to follow up accordingly.

Administration and moderation in the portal will follow a hybrid model, whereby content found to be offensive or inflammatory could be flagged by both end-users and portal administrators. Offensive content (e.g. comments, uploaded photographs) discovered and flagged twice will automatically be hidden from view in the portal. Administrators will at this point be alerted to verify each flagged case and decide upon the rerelease of the information if the flags were in error, or the relegation of the case to permanent obscurity in the event that the flags were legitimate.

The National Library Board of Singapore's services, collections and documentation efforts
In building ArtsCultureSG, the NLB has earmarked a number of its own services and collections for aggregation into the portal to enrich the one-stop search engine that is planned for the portal. In addition, the materials aggregated into the site could help to furnish the different sections of the portal with other added recommendations that might be of interest to end-users looking for information on their favourite performers or artists.

Some of the services[9] intended for aggregation into the first two phases of the portal include the following:
   i)   National Online Repository of the Arts (NORA, http://nora.nl.sg)
   ii)   MusicSG (http://musicsg.pl.sg)
   iii) Singapore Infopedia (http://infopedia.nl.sg/)
   iv)   BookSG (http://sgebooks.nl.sg/)
   v)   PictureSG (http://pictures.nl.sg/)
   vi)   NewspaperSG (http://newspapers.nl.sg)[10]
   vii) GoLibrary (http://golibrary.nlb.gov.sg/)
   viii) NLB Online Public Access Catalogue (OPAC, http://catalogue.nlb.gov.sg/)
With the exception of GoLibrary and NLB's OPAC which aggregates programmes, exhibitions and the print collections of the 25 different libraries under the NLB spread throughout the island, the 6 other services earmarked for ArtsCultureSG aggregation so far are focused on Singapore's history and heritage, with NORA and MusicSG predominantly focused on the arts in Singapore.

In addition to the aggregation of existing services and databases built, NLB is also looking into an intensive documentation plan of the arts landscape of Singapore over a period of 5 years. Despite the short history of the nation, the arts scene in Singapore is sadly poorly documented, with huge gaps of information throughout the different periods of Singapore's development. Given this, the NLB is actively seeking out opportunities for collaborations with institutions like the NAC, the National Arts Gallery of Singapore, as well as researchers who are interested in documenting the arts and cultural history of Singapore.

At the same time, the NLB is itself continuing its documentation efforts under the National Online Repository of the Arts, Arts Alive and Singapore Literary Pioneers projects which began in the early 2000s and aim to document prominent artists, theatre productions and writers of Singapore respectively, the content of which once produced, will be uploaded and aggregated into the ArtsCultureSG portal as well.

Figure 3: *Screen capture of the NORA website, a project that was started in 2005 to document prominent personalities in the arts in Singapore and provide online access to their digitized works to all.*
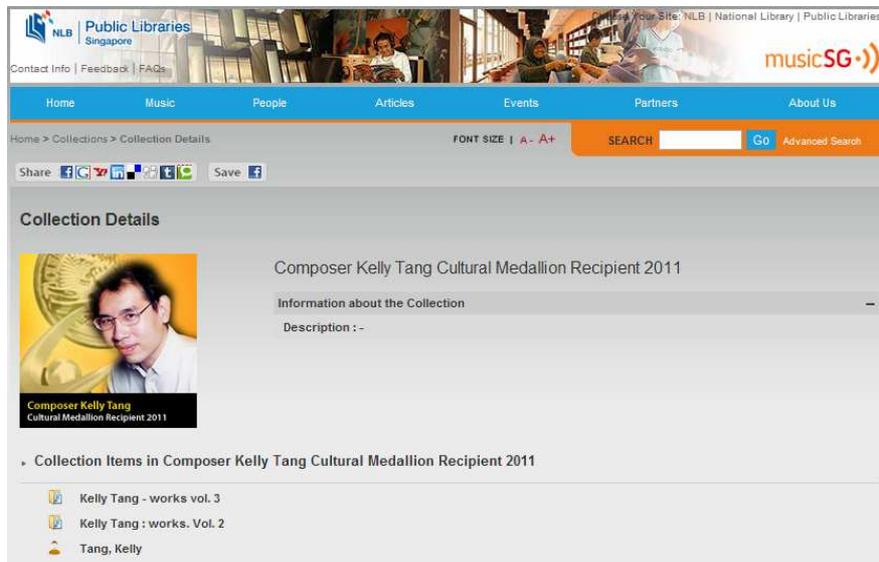

Figure 4: *Screen capture of the MusicSG website, which is focused on collecting and digitising musical compositions and tracks from musicians and performers of Singapore.*

Government institutions, museums, art galleries and arts libraries in Singapore
Four government institutions, the NAC, NHB, NLB and PA, came together in mid-2011 to work on the initial phase of development for ArtsCultureSG. In surveying the resources and collections overseen by the four different parties, selected services and collections were highlighted for possible aggregation into ArtsCultureSG based on their relevance to the arts.

The NAC[11], which is the government body appointed to promote the arts in the city nation, provided records of their annual and statistical reports on the development of the arts in Singapore. Directories of practicing arts groups and arts institutions were also earmarked for inclusion into the portal. As the council is also charged with organizing arts festivals annually, the portal development team will look into the technical requirements necessary to aggregate information on the arts festivals into the portal too. Funding opportunities and venues available for hire for artistic and cultural purposes, on the other hand, were also highlighted as useful resources but will only be integrated into ArtsCultureSG in latter phases.

Formed in 1993 as a statutory board meant to champion the development and preservation of Singapore's cultural and historical heritage, the NHB[12] oversees fourteen different museums, art galleries and heritage institutions around the island. Of these fourteen, the following seven have been highlighted to possess arts collections that will be potentially useful to targeted end-users for ArtsCultureSG:
   i)   National Museum of Singapore
   ii)   Singapore Art Museum (SAM)
   iii) Asian Civilisations Museum (ACM)
   iv)   Peranakan Museum
   v)   Singapore Philatelic Museum
   vi)   Preservation of Monuments Board (PMB)
   vii) Heritage Conservation Centre

NHB has also in the past few years worked on projects that aim to collate and aggregate the collections from the different institutions under its charge. One such project is the Singapore Collections Online (SGCool) service[13], which aggregates metadata records and images of artifacts and artworks collections from the museums and galleries under NHB's charge into a single platform. Collections showcased in this service are currently also featured in Google's Art Project. In working on the development of ArtsCultureSG, SGCool was earmarked and negotiated for aggregation into the national portal.

Other sources that are of interest and have been highlighted for possible aggregation into ArtsCultureSG include the events organized by the NHB and the museums and galleries under its charge, the Bemuse publication[14] and the Yesterday.SG blog[15].

The PA is another participating agency in the ArtsCultureSG project that the NLB is working with to aggregate the vast number of art classes, workshops and arts events taking place in its community centres and communal spaces across the island into the national portal. A large number of these classes and workshops can currently be found via the PA's onePA portal[16]. There are also several arts interests groups that are specially highlighted by the different community centres via the Cultureshiok[17] website, which will be aggregated into ArtsCultureSG to provide them with added exposure online.

Figure 5: *Screen capture of the SGCool online service that allows end-users to search across the collections of several museums and galleries under the purview of NHB.*
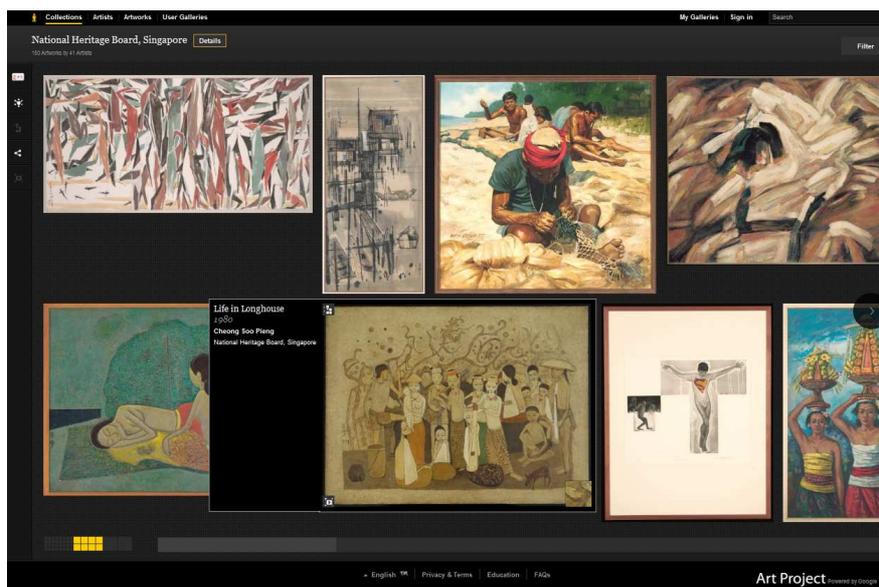

Figure 6: *Screen capture of SGCool's collection as showcased on Google's Art Project.*

Other agencies and institutions in Singapore that the ArtsCultureSG project team intends to negotiate and collaborate with include prominent galleries like the National Art Gallery, Singapore (TNAGS), government agencies with arts-focused interests (e.g. Singapore Tourism Board, Media Development Authority (MDA)) and educational institutions providing arts-centric programmes in their curriculums, such as the LASALLE College of the Arts and Nanyang Academy of Fine Arts (NAFA). Several of these institutions have their own art libraries or information resource centres that are charged with archiving the institutions' creative output and providing library and information services to their user populations. Different institutions may also hold special or rare collections

focused on Singapore's history, such as the Tanoto Foundation Centre for Southeast Asian Arts collection at NAFA and the Singapore-Malaysia Collection at the National University of Singapore Libraries. As all of these institutions collectively hold different pieces of the valuable treasure trove that makes up Singapore's artistic history and cultural development, the building of this national repository will not be complete without the participation of these various parties.

The arts ecosystem in Singapore

Given Singapore's relatively short known history, and its drive to achieve economic success in the early decades following its independence, the arts landscape of Singapore has for many years been viewed as under-developed and lacking in definitive local identities, unlike mature artistic communities thriving in big cities like Paris, New York and Tokyo. The largely immigrant background of a large proportion of its population also gives rise to a transient quality to the nation's cultural identity and a disconnected sense of ownership among its citizenry. Parents also have tendencies to value practicality over the arts, oftentimes pushing their children to pursue the hard sciences in their career choices instead of softer skills like music and drama.

Beginning in the late 1980s to the 1990s, the Singapore government set up the Advisory Council on Culture and the Arts (ACCA)[18] in its efforts to raise the profile of the arts in the city state. This was followed by the Renaissance City Plans in the 2000s[19], which focused on enhancing the professional capabilities in the arts in Singapore and exploring arts business as growth opportunities with an expanding demand base. Arising from these efforts, the arts arenas in Singapore have seen encouraging growth in the last decade, as evidenced by the statistical figures provided by the National Arts Council of Singapore[20].

In 2008, Singapore recorded a total of 327 arts societies and 595 arts companies. Examples of longtime mainstays in the arts landscape include the Singapore Symphony Orchestra, the Singapore Watercolour Society, the Angkatan Sasterawan '50, etc. Arts groups run the gamut of commercial and non-profit outfits, and practitioners similarly divide their time between available opportunities in both government sponsored initiatives or commercial enterprises.

Arts events venues, promoters and ticketing vendors have also made their presence felt as vital players in the industry. Singapore's arts industries are small, tight-knit and oftentimes fiercely competitive. The city's population's high level of Internet connectivity and mobile devices penetration of more than 150%[21] also mean that social media marketing, mobile applications and e-ticketing catch on quickly among potential audience bases. One major player that capitalized on this is SISTIC[22], a ticketing vendor that has exclusive contracts with some of the biggest arts events venues in Singapore (e.g. the Esplanade: Theatres on the Bay [23], Marina Bay Sands, Singapore[24]) and a successful e-ticketing website and mobile application, with almost 50 ticket pick-up locations across the island and overseas (Malaysia, Indonesia and Macau).

Over the past years, there have also been commercial efforts in aggregating arts events and information into single platforms for Singapore. Some of the more successful examples include the Singapore Art Gallery Guide[26] and inSing.com[27]. While there have been similar government efforts towards the same goals for aggregation like the Singapore Tourism Board's YourSingapore

website[28], both commercial and government projects tend to have specific genre focuses and target audience groups.

In view of the above, the ArtsCultureSG project's approach would be to negotiate for a collaborative and participatory model wherever possible. The project does not aim to be in direct competition with other government initiatives or the commercial sector, but instead will seek to complement existing initiatives to encourage the growth of the arts industries in Singapore. To this end, commercial bodies like SISTIC and the Singapore Art Gallery Guide are potential parties that the team may attempt to court to participate in the project. In addition, arts events venues and individual arts groups may also be invited to participate in the project by using the portal as a potential marketing channel for their own respective activities and showcases.
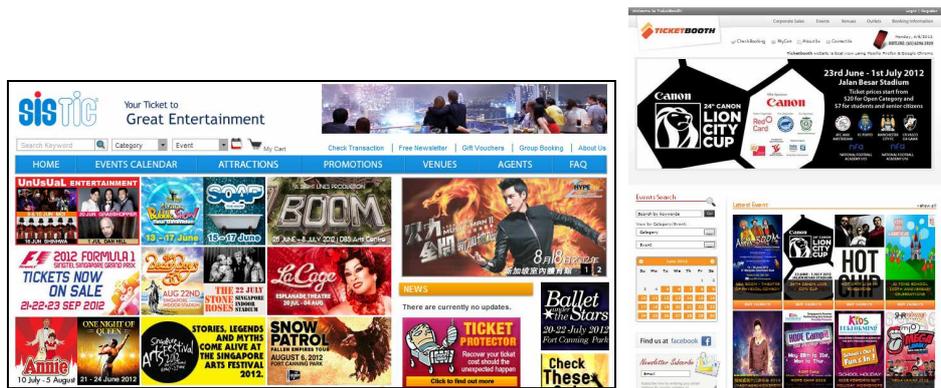

Figure 7: *Screen captures of examples of e-ticketing vendors for arts events in Singapore: Sistic on the left, Ticket Booth on the right.*

Figure 8: *Screen capture of the Singapore Art Gallery Guide, which is an aggregator website for the visual arts, showcasing exhibitions, talks, art galleries etc.*

Challenges in data aggregation, cross-mapping and maintenance for ArtsCultureSG
Some of the challenges that the project currently faces for the long term include the following:
i) Negotiations and tracking of partner sources
ii) Data collation and cross-mapping into ArtsCultureSG's informational infrastructure
iii) Long term maintenance of data stream updates and partner collaborations (e.g. technical solutions and periodic data ingestions)

As the list of collaborative partners grows for ArtsCultureSG, the project team is in the process of establishing procedural frameworks through which the team can track the negotiations' progress for different partners interested in the project efficiently. While uniformity in collaborative models negotiated for seem desirable for the sake of efficiency as well, the team has unfortunately found that in several cases, this is not possible as each organization deals with information or possesses collections that are unique to their organizations only.

Given the various sources from which data is being aggregated into the project platform, the team has also needed to provision for efforts required in cross-mapping data received to fit into the portal's informational infrastructure and data verification upon ingestion into ArtsCultureSG. While cross-mapping efforts for most of the data sources received so far have been viably smooth-going, there have been instances where the data sources provided have proven challenging for the team.

In the long run, the project team will also need to contend with the maintenance of keeping up with the data stream updates from different data sources. In instances where automated technical solutions are not possible for smaller organizations that do not have the resources to build automated systems through which the portal team can interface with directly, efforts for manual updates and data ingestion will need to be provisioned for to ensure that data on the portal are updated on a timely basis perpetually.

Development timeline and benefits to end-users and the arts in Singapore
The ArtsCultureSG project was given life in mid 2011. The development of the portal is currently underway and has been slotted for phase I and II production in late 2012 and mid 2013. The attendant mobile application for the portal will make its appearance in 2013. For the duration of 2014 to 2017, both the portal and mobile application will also see a number of enhancements implemented to improve their services as the project team continually work towards optimizing the two platforms to encourage increased end-users' interactions on them.

Despite the challenges that the team currently faces and anticipates and the enormous amount of resources required to be invested into this project, the long-term benefits of an aggregated arts portal for Singapore is undeniable to the development of and continued preservation of the country's artistic and cultural growth. As with any young nation in the world, Singapore faces a scarcity in informational resources when it comes to its own cultural history. To this end, ArtsCultureSG is built not just to plug the current demand for a centralized aggregated portal on the arts, but also to meet the future needs of preserving Singapore's cultural happenings and participants, and allow end-users using the site to document and archive their own creative output for future posterity online.

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