

Innovating Heritage – A Singapore Story

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Abstract:

The aim of this paper is to show how engagement of the Tamil community can be meaningful to preserve cultural heritage for an indigenous group. Valuing the community is one of National Library Board's (NLB) shared values, as it proactively engages the community and partners with various stakeholders to harness their expertise and networks so as to promote a civic and knowledgeable Singapore. What had been previously unexposed, unpublished and made unavailable is now not only searchable but retrievable and usable. What we have tested here will might be useful to any ethnic communities in identifying and retrieving hidden gems in the cultural heritage of a community.

Theatre, Music and Dance-related materials are primarily captured in the form of audio-visual materials. These exist in context with complementary or supporting information such as drama scripts, posters and collaterals. Soliciting these materials, collecting, curating and annotating them and making them available through a digital archive goes a long way in preserving and sharing these sound and visual cultural heritage for Singapore's Tamil community. Transforming materials relating to Digital Archive of Singapore Tamil Theatre, Music and Dance into the digital humanities would have far-reaching effects not least of which is the ability to create new knowledge and sustain the culture of the group. With the successful launch of the Digital Archive, the library's digital collection unlocks the opportunities for greater knowledge discovery and better preservation of valuable content and cultural heritage. This paper aims to also inspire other libraries to make the continuous effort in building transformational partnerships with community stakeholders. While the library creates the platform, the community proactively contributes and organises collaborative engagements for a wider audience.

Librarians can play a vital role in transforming libraries into community anchors. Curators, Selectors and Cataloguers were consulted in the curation process. The need for annotation for each piece of content can become a resource issue without community support. Metadata was created for the digital collection using Dublin Core standard. These were published and the contents made accessible on OneSearch, NLB's aggregated search platform which is used by the library, archive and museum community in Singapore.

This paper will show how concerted efforts are being made in organising various resources for the new generation of Tamils and theatre, music and dance enthusiasts. Additionally, what has been experimented with the Tamil community which is the smallest indigenous group in the demographic of Singapore can be used as a model for other groups. This digital initiative which is inclusive and diverse,

would preserve and promote Tamil language and culture in Singapore where multi-lingual and ethnicity is celebrated. This paper can be useful to anyone who would like to replicate the idea of identifying and retrieving to innovate heritage.

Keywords: Tamil community, innovative heritage, digital archive, theatre, music, dance, metadata

1 Literature review

Traditionally, libraries have played an integral part in promulgating knowledge. Libraries have been not only creating meaningful learning experience for communities but have also enjoyed a cordial relationship. Bourke (2005) and Cox (2000) agree that libraries can potentially be credible members of their communities, potentially increasing equality in the community. It is here that Bundy (2003) too purports that libraries indeed have a challenging but momentous role to play as they contribute, lead, build communities and social capital. Along the same lines, Stewart and Newman (2017) put forth the view that promotion of new knowledge has now become necessary and libraries are in fact promoting the influence of digital libraries. Libraries need to be advocates as what Grace and Sen (2013) see their roles to be as trust builders within the community. Further, Ilangovan and Higgins (2003) had discovered from their study to explore Library Provision to the Tamil Community in Singapore that promoting and creating awareness of a community helps them to regain their cultural values so as to position themselves positively in the society.

The National Library Board (NLB) provides a blue print in its Library 2020 Masterplan that provides a framework to make libraries for life for the people of Singapore. It aims to build the next generation library an inspirational and community supported institution for learning and knowledge creation. Being a stalwart champion for reading, NLB aims to provide a trusted, accessible, and globally connected library and information service through its network of National Library, Public Libraries and National Archives in collaboration of strategic partners and innovative use of technology.

2 Scope

The aim of this paper is to show how engagement of the Tamil community can be meaningful to preserve the cultural heritage for an indigenous group. In making the digitised Tamil archives available to the community, it helps them to use it for research purposes, re-create to build upon the collection and revive their cultural identity in the society. While transforming the library's medium of the audio-visual and multi-media into digital access, we have created a link between the arts community and the library. This reinforces one of NLB's shared values of valuing the community as it proactively engages the community and partners with various stakeholders to harness their expertise and networks so as to promote a civic and knowledgeable Singapore. Additionally, what has been experimented with the Tamil community which is the smallest indigenous group in the demography of Singapore could be used as a case study for other ethnic groups. The paper discusses the value of the work and how it can be a template for other libraries to adopt.

3 Tamil Community in Singapore

Singapore being a multi-cultural and multi-ethnic society, is migrant in its origins and has English as its main language of use with Chinese, Malay and Tamil as the other official languages. Ethnic Indians form less than 10% of the population yet they are a significant

minority group who are diversified in terms of language, culture, religion, ethnicity and social fabric. Undeniably, they have contributed to the nation building of Singapore. Tamils arrived in Singapore in the early colonial period during the 19th century. They who form the majority of Indians in Singapore speak the Tamil language and preserve their Tamil culture.

4 Arts in Singapore

In an attempt to nurture arts among the people of Singapore, The National Arts Council (NAC) was established as a statutory board in 1991 to lead literary, performing and visual arts in Singapore, with a mission to make the arts an integral part of life in Singapore. Currently many of the of Singapore's thriving arts scene is funded by the government.

Indians have distinguished themselves in a number of cultural fields, including contemporary and traditional Indian art forms. The timely setting up of The Singapore Indian Fine Arts (SIFAS), which is Singapore's pioneer academy in imparting the knowledge of Indian traditional and classical music, dance and arts is a testament to its role in the cultural transformation of Singapore. The Indian community has produced the following cultural medallions (a Singapore Cultural award given to individuals who have achieved excellence in the fields of literary arts, performing arts, visual arts and film, and contributed to Singapore's cultural environment): Madhavi Krishnan (1979), Neila Sathyalingam (1989) and Santha Bhaskar (1990) in the performing arts. There is a need for the community's involvement in the literary and performing art to be preserved for posterity.

5 Exposing the Indian Cultural Heritage in Singapore

In 2015, in commemoration of 50 years of celebrating Singapore's independence, a collection of 350 Tamil literary works of Singapore from 1965-2015 were digitised as the Indian community's gift to the nation. The archives of 50 years of local Tamil literature can be accessed online in NLB's BookSG portal (<http://eresources.nlb.gov.sg/printheritage>). Chellapandi (2016) mentioned how digital humanities for the Tamil community has been a ground up initiative in making NLB's Tamil Digital Heritage project a successful one. She highlighted an unprecedented Optical Character Recognition (OCR) technology for the Tamil language, a world's first for a large volume of Tamil texts that was used for resource discovery. The efficacious launch of the Tamil Digital Heritage Collection provided impetus for the community to further preserve other literary works. Between 2017-2019 NLB and the Tamil Digital Heritage Group, a community initiated team, produced the recently launched Digital Archive of Singapore Tamil Theatre, Music and Dance, available in NLB's National Online Repository of Arts or NORA (<http://eresources.nlb.gov.sg/arts/website/Common/Homepage.aspx>)

6 The Digital Archive of Singapore Tamil Theatre, Music and Dance

Digital Archive of Singapore Theatre, Music and Dance Project aims to create a repository of materials on Indian performing arts in Singapore. This repository was made possible by strong support from and participation by many contributors within the Tamil community ranging from music schools, small community ensembles to individual theatre artists, musicians and dancers. Being a ground-up initiative, the project was first mooted by the community and fronted by the

Tamil Digital Heritage Group Head, a community leader, who is also a member of the Tamil Advisory Panel with NLB. He has been a passionate figure championing the preservation and promotion of Singapore Tamil heritage for many years, working closely with the Indian community. His project team is made up of other grassroots leaders and representatives from the media and education sectors, who provided the strategic direction. They also galvanised community support and involvement. Tamil language teachers from Singapore schools and other like-minded people who believed in the objectives of this project helped to make it a reality despite the many challenges.

The community champion commands respect from the arts community as he is also an ardent supporter of the arts in Singapore. He gathers volunteers who themselves are embedded within the arts communities. Using his extensive network, he spurs the contributors to support the project to archive the materials. His team works closely with NLB's staff to optimise existing systems and processes to enable relevant materials to be collected, processed and digitised for access.

Various performing arts related materials such as audio and video recordings, scores, programme booklets, photographs, articles on topics related to Singapore music, biographies, lyrics and dance notations are collected, including a small collection in non-Tamil Indian languages to enrich the array of literature available on Indian performing arts. Bringing together a suite of content raises the awareness of Indian performing arts in Singapore. Both published and unpublished works were carefully curated, annotated and digitised so as to provide a wealth of online information to anyone interested in this collection. More importantly transforming the physical items to digital and making them searchable online creates greater reach and a better user experience. What is more heart warming is that the community not only initiated and supported the project but also gave NLB permission to archive their work online and in so doing the Tamil community has played a significant part in the nationwide initiative to preserve Singapore's cultural heritage.

7 Collaborating with the community

The Tamil community showed tremendous enthusiasm in leading a group to preserve and promote Tamil language and culture in Singapore by digitising materials on theatre, music and dance and making them accessible. This also serves as an educational resource for practitioners, a reference source for scholars, a teaching tool in the classroom, a historical account for posterity and a contribution to national arts resources.

In total, there were three digital archive projects between 2017 to 2019, one each for theatre, music and dance. A group leader from the community was identified for each project so as to solicit materials and curate the collection. In theatre, the Tamils have made remarkable contributions. There are several theatre groups promoting Tamil language through their plays such as Ravindran Drama Group, Avant Theatre, Triple V Creative Theatre, Singapore Indian Artist Association, Kanniga Arts, S. Varathan, Sembawang Art association and AK Theatre. As for Singapore Indian music pioneers, leading violinist Sharada Shankar was not only the recipient of Singapore's Kala Ratna and India's Empress of Classical Music Awards but also numerous other awards and felicitations from 1939 until 1990s. For Indian classical dance, a dance form originating from India comprising genres such as Bharatanatyam, Kathakkali, Kuchipudi, Mohiniyattam, there are several renowned dance groups in Singapore such as Bhasker's Art Academy, Nrityalaya, Aesthetics Society, Aspara Arts Limited.

The tables below are examples of the concerted efforts of the community gathering all the required materials for the project. These were gathered by community leads from various Tamil theatre groups. NLB is able to concentrate on collating and organising the materials, a benefit of having a community-led initiative. Volunteers like art enthusiasts as well as interested members from the community came forward to annotate these resources.

Tamil Theatre Groups	Ravindran Drama Group	Avant Theatre	2Tango Dazzle Ltd	Triple V Creative theatre	Blacsplce -SITFE	Singapore Indian Artistes Association	Anna Drama Society	Kanniga Arts	S. Varathan	Sembawang Arts Association	AK Theatre	Athipathi International Theatre	Ivann Productions	SS Sarma (Indian Arts Centre)	SS Sarma (Indian Movie News)	SS Sarma (Vonnilla Kalai Arangam)	Subramanian Ganesh	Vijayalakshmi Kannan	Mirror Theatre	Naam Production	TOTAL
No. of accepted items																					
Born digital	822	1786	31	253	34	28	1	1	23	1	9	6	417	50	29	35	107	39	0	0	3672
Physical	33	0	1	2	0	0	0	0	0	0	0	0	0	16	0	0	0	0	0	0	52
	855	1786	32	255	34	28	1	1	23	1	9	6	417	66	29	35	107	39	0	0	3724

Figure 1: Collated submission from Tamil theatre groups, 2017

Tamil Music Individual / Group Donors	Sai Akilesh/Sai Vignesh	Sharada Shankar	Srividya Sriram	Temple of Fine Arts (TFA)	Bhagya Murthy	Chitra Poornima	Janani Ganesh	Lavanya Balachandran	Nishanth Thiagarajan	Nrithyalaya Aesthetics Society	Sushma Somasekharan	Aishwariya Ramakanthan	S'pore Indian Fine Arts Society	Shankar Rajan	Lalitha Vaidyanathan	Aravind Ratnam	Vaishnavi Anand	TOTAL	
No. of accepted items																			
Born digital																			115
Physical	50	3	30	227	99	6	3	3	146	40	44	8	167	38	127	15	64	1070	
																			1185

Figure 2: Collated submission of Tamil music materials, 2018

Indian Dance Group/ Individual Donors	Durga Mani Maran	Jamuna Rangan	Lalitha Subramony	Rathi Karthigesu	Vaishnavi Anand	V Balakrishnan	Temple of Fine Arts (TFA)	Chitra Shankar	Bhasker's Arts Academy, Nrithyalaya Aesthetics Society	Shanti Ratii	Dr Dri Rama
No. of accepted items											
Born digital	4				125			19	295		
Physical	28	24	47	40		16	24	32		61	41

Figure 3: Collated submission of Tamil dance materials, 2019

For each project, the community took several months to collect the materials within the year of the project. The respective group leaders took the responsibility to conduct quality-checks such as ensuring good quality images and providing brief information including identifying personalities in photographs submitted before handing over to the NLB representative at regular intervals. A quality checklist is important in order to prevent a deluge of poor quality materials, duplicate or overlapping materials or materials with no information. To this end, NLB worked with the group leader to identify materials and group them into common categories as follows:

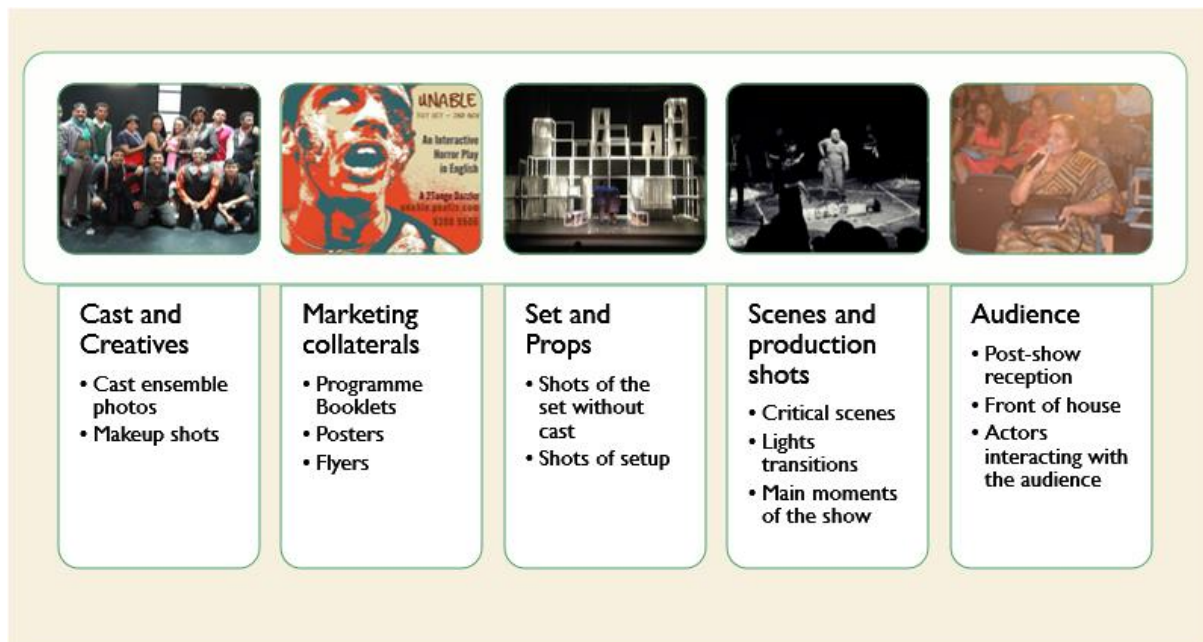


Figure 4: Collection facets for theatre archives

NLB also prepared a timeline template that can guide the deliverables required for each project. At the start, communicating the intent and getting buy-in from contributors such as arts groups is a shared responsibility between the library and the community group. Copyright clearance is critical in order for the library to disseminate the materials as part of its collection and preserve them in its digital preservation repository for future generations of Singaporeans to access. In addition, apart from ensuring sufficient information is provided, creating a proper inventory of the submissions is important to ensure proper accountability for all parties concerned. In NLB's case, due to the multi-lingual nature of the country all descriptions need to be provided in both English and Tamil. It was a great achievement that these annotations were done by volunteers from the community although traditionally it is the task of cataloguers, as even with subject-matter knowledge it would not always be possible to make sense of some of the submissions.

Month	Activity	Remarks	In-charge
	Discussions with NLB		TDHG & NLB
Month 1	To email NLB the Tamil Digital Heritage Group (TDHG) Copyright form	Legal parties from both sides need to agree and clear the copyright forms	TDHG
	Presentation on DASTT project to arts groups	Preferable for copyright forms to be distributed at this meeting.	TDHG & NLB
Month 2 & 3	1. Submission of all Materials in batches 2. Listing of Materials 3. Signed Copyright forms	All 3 to be submitted together. Copyright forms to be appended with listing of relevant materials belonging to the rights owner.	TDHG
Month 3	Digitisation of materials (different vendors for print and AV)	Materials will be selectively digitized based on NLB digitisation guidelines.	TDHG & NLB
Month 4	Volunteers to assist in descriptions: to provide a bilingual description of materials that have signed copyright forms	- NLB will provide a template - TDHG to oversee and submit to NLB once completed	TDHG
	Ingestion of records/ Testing and mapping of records / Upload	Back end processing	NLB
Month 5 – 6	Back-end processing including cataloguing	Materials will be part of overall NLB pipeline of items to be catalogued	NLB
Month 7	Testing and Checks		NLB & TDHG
Month 8	Launch	TDHG to provide details.	NLB & TDHG

Figure 5: Timeline template

8 Digitisation, access and delivery

NLB set up a cross-divisional team comprising of selectors, cataloguers, IT professionals and reference librarians to form its project team. As the collection owner, the reference librarians from the National Library (NL) act as liaison to the community. Requirements for selection, cataloguing and website delivery were coordinated in this way. Important considerations such as naming the collection in English and confirming its vernacular form was reached through the many bi-lateral meetings held. Specific requirements such as a request for NLB to come up with a Tamil language taxonomy for website navigation were discussed and acceded to. Once the selectors have curated the items, the next step in the process was activated. This was for digitisation and metadata creation.

Information such as the below needed to be stated up-front:

- Service microsite in which the collection is to be made available
- Collection Name
- Access Rights
- Requirements for Digitisation and Preservation
- Requirements for Access & Delivery

Access Rights:	<input type="checkbox"/>	Remote viewing only (No downloading / No printing / No copying)
	<input type="checkbox"/>	Remote full access (Can download / Can print / Can copy)
	<input type="checkbox"/>	Remote full access - Publishing (Can download / Can print / No copying)
	<input type="checkbox"/>	Restricted - 10% online viewing only (100% onsite viewing at 2 workstation (No downloading / No printing / No copying)
	<input type="checkbox"/>	Restricted - 2 pages online viewing only (Pages 9 & 10 online viewing, 100% onsite viewing at 2 workstation (No downloading / No printing / No copying)
	<input type="checkbox"/>	Unpublished (Ingestion in CMS & DPS / no public access to item / no exposure of metadata to public / metatagging needed)
	<input type="checkbox"/>	Dark Archive (DPS only)
Preservation Copy:	<input type="checkbox"/>	Master Copy <input type="checkbox"/> Do not scan blank pages
	<input type="checkbox"/>	To be transformed from the digital Access Copy: from "Word" format to "PDF" format
Delivery Access Copy:	<input type="checkbox"/>	Thumbnails <input type="checkbox"/> In full
	<input type="checkbox"/>	Webink to partner's site <input type="checkbox"/> Partial: TOC only
	<input type="checkbox"/>	OCR required <input type="checkbox"/> Partial: Please specify: <u>First 10 pages</u>
	<input type="checkbox"/>	Watermarking <input type="checkbox"/> Do not scan blank pages
	<input type="checkbox"/>	<input type="checkbox"/> To be transformed from the digital Master Copy
	<input type="checkbox"/>	Others: Please specify: <u>to use the transformed "PDF" copy</u>

Figure 6: Requirements for Digitisation, Access & Delivery

NL librarians submit brief metadata to accompany each material submitted for digitisation. The resulting file of each digitised material together with these metadata are then submitted for ingestion into NLB's content management system (CMS). As NLB practices direct publishing of content submitted into its CMS to its website, cataloguers check the brief metadata submitted prior to ingestion for obvious errors. Since cataloguing is a time-intensive effort, full enhancement in the form of assignment of Library of Congress Subject Headings, local taxonomy terms and other metadata description are done after the objects are published so as not to hold these materials back.

NLB uses Dublin Core (DC) metadata standard for describing its digital collections. The NLB-Application Profile (NLB-AP) is based on the DC-Libraries Application Profile (<http://www.dublincore.org/specifications/dublin-core/library-application-profile>). The NLB-AP is a document that defines standard operating procedures and best practices for the creation of metadata records for digital library resources in NLB. It guides the cataloguers in the selection of metadata elements or terms to be used according to the material type and the encoding schemes to be applied based on service delivery needs. Adopting DC metadata terms has proven to be the best option for NLB for its simplicity and interoperability. It has less rigorous content rules and more importantly, supports resource discovery in making the digital objects retrievable in a flexible and scalable manner. Its value is that it provides a framework of elements which aids in the management of information.

A bespoke metadata creation template was built as a layer atop the CMS where cataloguers catalogue the digital collection (see Figure 7). Some of the fields would have been populated through the ingestion earlier. Cataloguers are able to view the contents of the items ingested so as to aid in cataloguing.

Figures 7: Metadata in the Generic Template, National Library Board



Figure 8: Digitised content viewable from the Generic Template, National Library Board

The collection is published on the website as well as made searchable on NLB's integrated search platform, OneSearch.

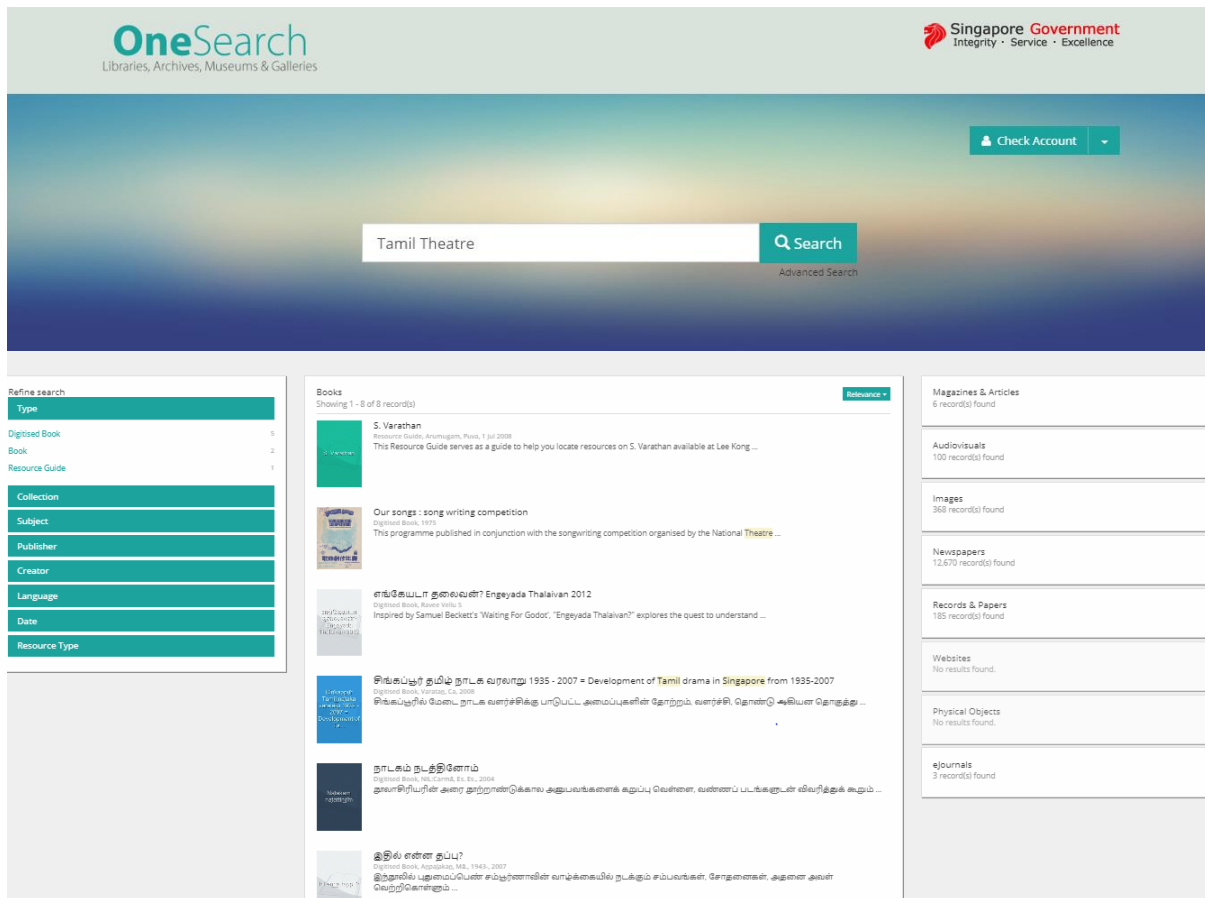


Figure 9: OneSearch, National Library Board

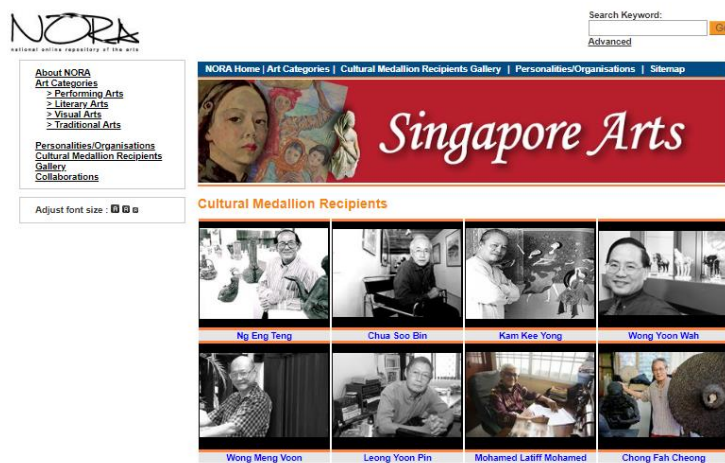


Figure 10: NORA, National Library Board

10 Appendix: Standard Operating Procedure

In the course of doing this project, we came up with, a template or a step by step instruction which might be useful for other libraries to adopt.

S/N	Process steps	Task Owner
1.	<p>Select collection to be digitally archived</p> <ul style="list-style-type: none"> -Select a collection that the library wants to digitally archive. -Identify community groups to work to fill the collection gaps. -Identify the roles of the library vs community group. 	Library and Community
2.	<p>Collaboration with community</p> <ul style="list-style-type: none"> -Engage with the community to set up Library Services Advisory Panel or an interest group. -Form partnership and conduct dialogues with the community. -Get to know the community through library outreach programmes. -Identify a champion who is a representative from the community and who can work with the library and form a group with like-minded volunteers. <p>(The library can step in with its volunteers or Friends of the Library [FOL])</p>	Library and Community
3.	<p>Setting up a project team</p> <ul style="list-style-type: none"> -Set up a project team with representatives from the community and cast clear deliverables and milestones. -Library to set up a project team with representatives from relevant divisions. -Library to liaise with the group leader identified by the champion from the community on the progress of the project. 	Library and Community
4.	<p>Data Collection, Curation and Delivery</p> <ul style="list-style-type: none"> -Community group to solicit materials. 	Library and Community

	<ul style="list-style-type: none"> -Community group to gather, sort, conduct quality checks on all materials collected. - Library to use existing systems and processes to enable relevant materials to be collected, processed and digitised for access. - Decide on the use of metadata elements. Use schema such as Dublin Core. - Library to create an inventory list of materials collected by the community. -Library to do content management and website enhancements while community to do volunteer management. - Library to do ingestion, metadata and publishing of the content in the microsite. 	
5.	<p>Launch the Digital Archive</p> <ul style="list-style-type: none"> -Upon publishing the content on the library's microsite, perform user acceptance tests with the community which is necessary. - Library to launch the service jointly with the community. 	Library and Community

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