

ARCHIVING THE SINGAPORE-WIDE WEB

Recent amendments to the National Library Board Act now allow the National Library to preserve Singapore websites without the express permission of content owners. **Shereen Tay** explains.



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- National Day Parade** (Archived on 25 August 2015)
The National Day Parade website is updated annually to reflect the programmes and events of that year's celebrations. The National Library has archived the website since 2006, including the momentous SG50 milestone in 2015 celebrating Singapore's Golden Jubilee.
- Ministry of Information, Communications and the Arts** (Archived on 27 January 2006)
The Ministry of Communications and Information has undergone several reorganisations and name changes since its formation in 1959 as the Ministry of Culture. Prior to its most recent change in 2012, it was known as the Ministry of Information, Communications and the Arts.
- Fighting SARS Together!** (Archived on 3 July 2006)
The Severe Acute Respiratory Syndrome (SARS) outbreak in 2003 is a tragic episode in Singapore's history. This website was launched by the government to keep the public informed of the latest news and information on the disease.
- First Toa Payoh Secondary School** (Archived on 8 November 2015)
Founded in 1968, First Toa Payoh Secondary School was one of four secondary schools merged in 2016 due to falling student enrolment. The WAS portal contains several archives of its website, including the 2015 version before it was absorbed into Bartley Secondary School.

Revamping Web Archive Singapore (WAS)

In preparation of the work ahead, the National Library revamped the WAS portal in August 2018. The website now has a completely new look with added features and functions, along with other enhancements to provide a better user experience.

Curator of website content took centre stage in the portal's transformation. "Special Collections" contains websites on significant events or topics relating to Singapore, while the monthly "Librarian's Pick" highlights a specific archived website that is of interest for that month. Selected and managed by librarians of the National Library, these two features aim

to promote the web archive collection, generate interest among researchers and encourage further exploration of the portal.

The search capability of the portal has been enhanced too and now facilitates full-text search right down to the individual webpages and files within the archived website. In addition, screenshots of archived websites are included; these are especially handy when technical limitations hamper the display of archived websites.

To encourage public participation, users are invited to help build the national web archive collection by recommending websites that should be archived via an online nomination form. These website suggestions will be reviewed by librarians before they are selected for archiving.



The revamped Web Archive Singapore portal now boasts new features such as curated content and enhanced full-text search.

Have you ever bookmarked a favourite website only to later find a broken link, or worse, find that it no longer exists? Unlike print materials, websites are ephemeral, and their content easily updated or removed with a mere swipe of the screen or click of the mouse.

Within the span of just one year, between 2016 and 2017, the total number of websites on the World Wide Web grew by a whopping 69 percent to more than 1.7 billion.¹ As at 10 September 2018, the number is close to a staggering 2 billion.

Websites are important records of memory, knowledge and history, and as more and more content is created online, there is an increasing need to ensure that websites are systematically archived and the information preserved for future generations. In recognition of this, many national libraries and institutions around the world today are collecting and preserving websites through a process called web archiving.

As the custodian of our nation's published heritage, the National Library of Singapore embarked on a web archiving initiative more than

a decade ago in 2006. An online portal, the Web Archive Singapore (WAS), was specially created to archive Singapore-related websites. Its reach, however, was limited as the National Library Board (NLB) Act only empowered the National Library to collect print materials via the Legal Deposit function.² As the archiving of websites involved the administratively cumbersome process of seeking the written consent of website owners, it hampered the building of a comprehensive national collection of Singapore websites.

Following in the footsteps of national libraries in the United Kingdom, Australia, New Zealand, Japan and South Korea, the NLB Act amendment bill was passed by parliament in July 2018 to allow Singapore's National Library to archive websites containing the .sg domain without the need for written permission.³ With the introduction of the new legislation, the library intends to archive publicly available .sg websites at least once a year. Selected websites, such as those covering significant events like National Day and the Southeast Asian Games, will be archived more frequently.

Shereen Tay is an Associate Librarian with the National Library, Singapore. She is part of the team that oversees the statutory functions of the National Library, in particular web archiving.

Next Steps

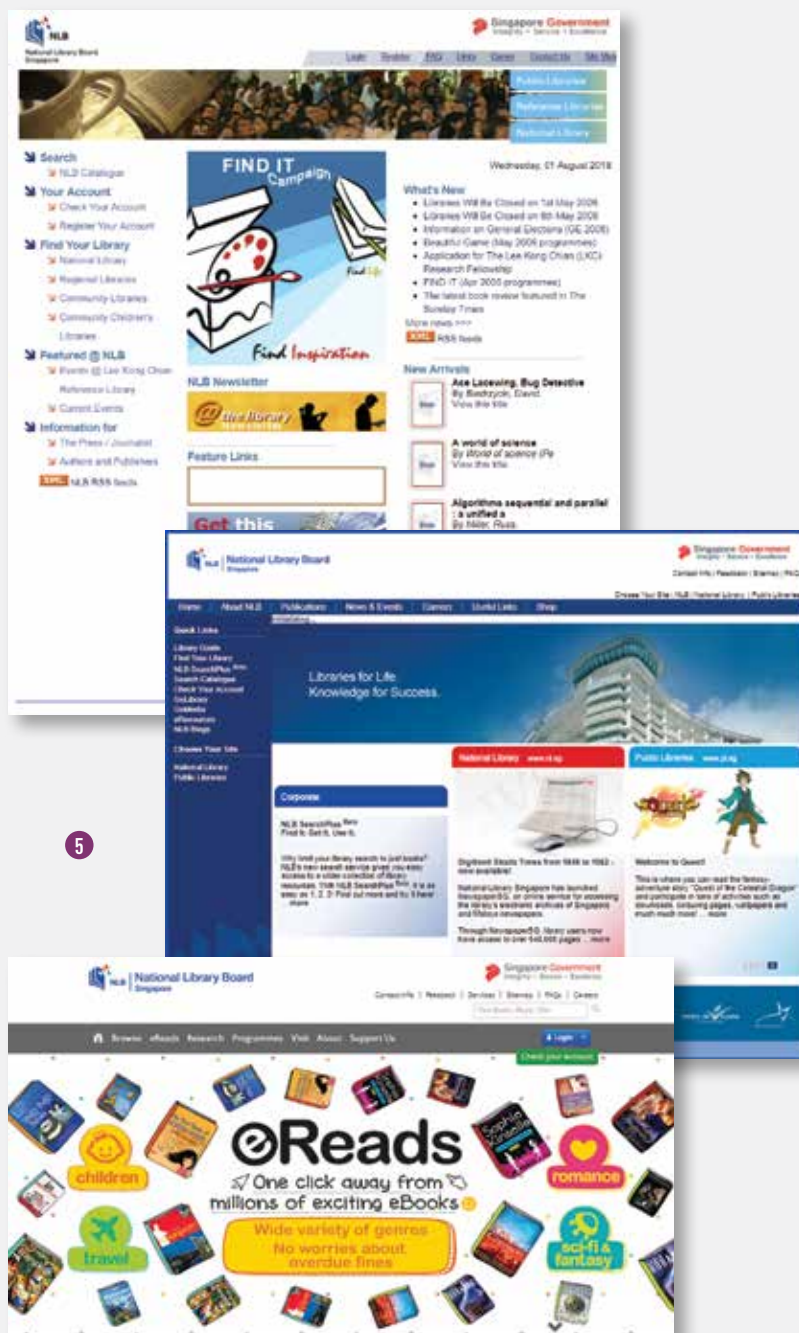
The new legislation to collect and preserve Singapore-related websites is a notable step forward for NLB. It enables the National Library to strengthen its national collection by collecting published heritage materials that are born digital, including all Singapore websites. These digital materials will not only enrich and supplement existing local content and create a lasting legacy for future generations of Singaporeans, but also enhance the National Library's standing as a public and heritage institution.

The journey, however, does not end here. Given the more than 180,000 registered .sg domain websites⁴ and with the number set to increase every year, collecting and preserving Singapore-related websites is an uphill task. To complicate matters, there are many non-.sg websites out there with significant Singaporean content. As non-.sg websites are excluded under the new NLB Act mandate, the National Library is legally bound to seek written consent from website owners before such sites can be archived.

The WAS portal currently comprises mainly government websites as well as a handful of websites of private organisations that had previously granted NLB permission to archive their sites.

Featured here are some highlights from the collection. ♦

5. **National Library Board** (Archived on 28 April 2006, 15 November 2009 and 24 August 2015) Archived websites are not only useful in tracing organisational history, they also show how website designs and functionality have changed over the years. The National Library Board's website has undergone several transformations between 2006 and 2016. From static HTML to dynamic content such as carousel banners, websites have to continually reinvent themselves to improve the user experience.



WHAT IS WEB ARCHIVING?

One of the new statutory functions of the National Library Board (NLB) Act is web archiving. Web archiving, which ensures that Singapore's online published heritage is preserved for future generations, is done via a systematic process of collecting content that has been published on the World Wide Web at a specific point in time, storing it in an archive, and making the collected data accessible for future research. Under the NLB Act, the National Library is empowered to collect publicly available Singapore websites that end with the .sg domain. For more information, please visit eresources.nlb.gov.sg/webarchives.

Notes

- 1 Internet Live Stats. (n.d.). *Total number of websites*. Retrieved from the Internet Live Stats website.
- 2 Legal Deposit is a statutory function of NLB. All publishers, commercial or otherwise, are required by law to deposit two copies of every work published in Singapore with the National Library within four weeks of its publication. The National Library has collected close to 1.3 million print publications over the last 50 years.
- 3 The amendments to the NLB Act extended the scope of the Legal Deposit function to include digital materials and web archiving. All publishers are now required by law to deposit one copy of every digital work published in Singapore with the National Library within four weeks of its publication.
- 4 Singapore Network Information Centre. (n.d.). *Registration statistics*. Retrieved from the Singapore Network Information Centre website.