

COLLECTING AND PRESERVING COVID-19 TWEETS

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Introduction – Anaesthesia and COVID-19

The Australian and New Zealand College of Anaesthetists (ANZCA) is the professional organisation responsible for training and accrediting approximately 7000 specialist anaesthetists and 1600 anaesthetists in training (Australian and New Zealand College of Anaesthetists [ANZCA], 2020). ANZCA employs a number of support staff, including a small team of library, records, and museum staff.

Anaesthetists are not simply the doctors that “put you to sleep.” Anaesthetists administer a wide range of medical services and are part of multidisciplinary teams that provide healthcare to patients before, during, and after surgery. Anaesthetists are the experts in resuscitation and intubation for ventilation.

On 30 January 2020, the World Health Organization declared the novel coronavirus to be a Public Health Emergency of International Concern (PHEIC), posing an increased threat to healthcare workers internationally (2020). Not only are anaesthetists at risk of contamination by being in the presence of infected patients, but intubation of a patient with COVID-19 is a high-risk procedure. Intubation is necessary for patients with respiratory failure that require a ventilator. In conducting the procedure, however, anaesthetists are in “close proximity to the oropharynx and the exposure to airway secretions, which can carry a high viral load.” (Odor et al., 2020). Anaesthetists are the frontline healthcare professionals responding to the COVID-19 pandemic.

Twitter

ANZCA’s [Geoffrey Kaye Museum](#) chronicles the history of anaesthesia, intensive care and pain medicine, with a focus on the Australian and New Zealand perspective. The COVID-19 pandemic presents a rare opportunity for the museum to collect primary historical sources as the event is unfolding, potentially forming an exhibition in the future.

ANZCA's members are very active on Twitter. ANZCA maintains a popular [Twitter account](#) and the experiences of anaesthetists are personally created and shared with it. These Tweets are immediate, publicly available, and relevant. Anaesthetists can share their experience with COVID-19 to a worldwide audience from just outside the operating theatre.

Tweets, however, are ephemeral. Twitter users and their tweets are subject to the terms of service, rules, and design of the social networking site, which may not be conducive to archiving and preservation. As an example, it was recently announced that Twitter would begin testing a new feature called 'fleets' – tweets that would disappear after 24 hours (Pardes, 2020). Additionally, efforts to archive Twitter on a large scale have not been successful. In 2010 it was announced that the Library of Congress would archive all public tweets. In 2017, the project was effectively abandoned due to cost, privacy concerns, and shifting terms of service. The Library of Congress now acquires tweets on a selective basis and access to the collection is embargoed (Osterberg, 2017).

Current Systems

ANZCA does not have a digital preservation system that automates the ingestion, fixity, and migration of digital files. Currently, digital files assessed as having permanent value to the organisation are stored on a secure network drive and have checksums and metadata applied using [Bagger](#). A reference to the file is manually entered in a text database.

This process is not appropriate for a tweet. A tweet is not comprised of a single digital file, but a collection of HTML script, images in various formats, background applications, and databases. Similarly, a tweet is not simply the 280 character content. A tweet is a connected profile, hashtags, images, hyperlinks, and the interoperability between these components. The functionality and design of a tweet should be preserved to provide context for future viewing and reuse.

Appraisal

An early limitation of identifying tweets for capture and preservation is the search function of Twitter. Initial forays into Twitter did not immediately reveal the advanced search function – staff were limited to manually browsing through hashtags or feeds to select tweets to add to the collection. Additionally, the nature of tagging on Twitter proved to be an obstacle. Although folksonomies are easy for end-users to understand and apply, the lack of a controlled vocabulary results in inconsistently applied synonymous tags. At the time of writing, #COVID, #Covid_19australia, #COVID19, #covid2019, #coronavirus, #COVID19au, are interchangeably used hashtags.

In discussions with [Australasia Preserves](#) members, ANZCA staff were directed to [TAGS](#). TAGS is a free Google Sheet template which allows for the automated collection of search results from Twitter. A user of TAGS can enter multiple search strings to be conducted and saved every hour. TAGS saves the tweet text in a separate Google Sheet with the following metadata:

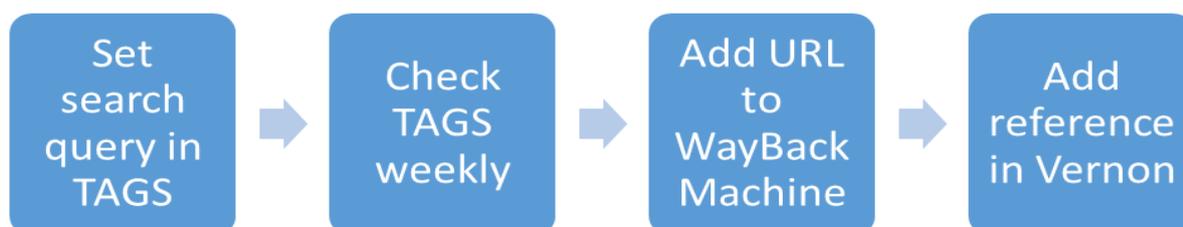
- Username
- Time posted
- User location
- User language
- Tweet URL
- Profile image URL
- Hashtags used
- Tweet and User replied to (if applicable).

Preservation

TAGS is used by ANZCA staff as a selection and appraisal tool, not an archive, as it does not capture or preserve the functionality of a tweet. To retain this information, the URL of the tweet is added to the [Internet Archive's Wayback Machine](#). The Wayback Machine captures the 'front-end' of a webpage as it is seen on that day. Users can view and interact with the preserved webpage as they would have been able to in the past.

The WayBack Machine is simple to use and does not require the installation of software, and with an Internet Archive account, URLs can be saved to a dashboard for later viewing. However, the dashboard does not allow for the meaningful curation or application of metadata to a saved URL. As such, ANZCA staff accession the archived webpage in Vernon, the museum's collection management system.

Process Workflow



Conclusion

Without the convenience of a single system, digital preservation can be a lengthy process of responding to multiple technological limitations. However, through the collaboration of information management professionals, ANZCA has been able to collect and preserve historical tweets with meaning and functionality at no cost. These tweets may form the basis of a future COVID-19 exhibition for its valued members and the public.

Acknowledgements

[Australasia Preserves.](#)

Monica Cronin. Curator, Geoffrey Kaye Museum. ANZCA.

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