Discourse network Twitter for rtweet

Roslyn Walker, Macquarie University, Sydney

Collins Dictionary named Climate Strike the word of 2019:

"a form of protest in which people absent themselves from education or work in order to join demonstrations demanding action to counter climate change"

"Climate Strike and public discourse" is the topic of my thesis.

In my research I've encountered two issues with gathering empirical data from public discourses around Climate Strike.

(1) Ethical considerations for collecting data from social media.

(2) How do I validate the hashtag public "ClimateStrike" on Twitter as a global conversation?

As a solution I've written an R script to scrape Twitter.

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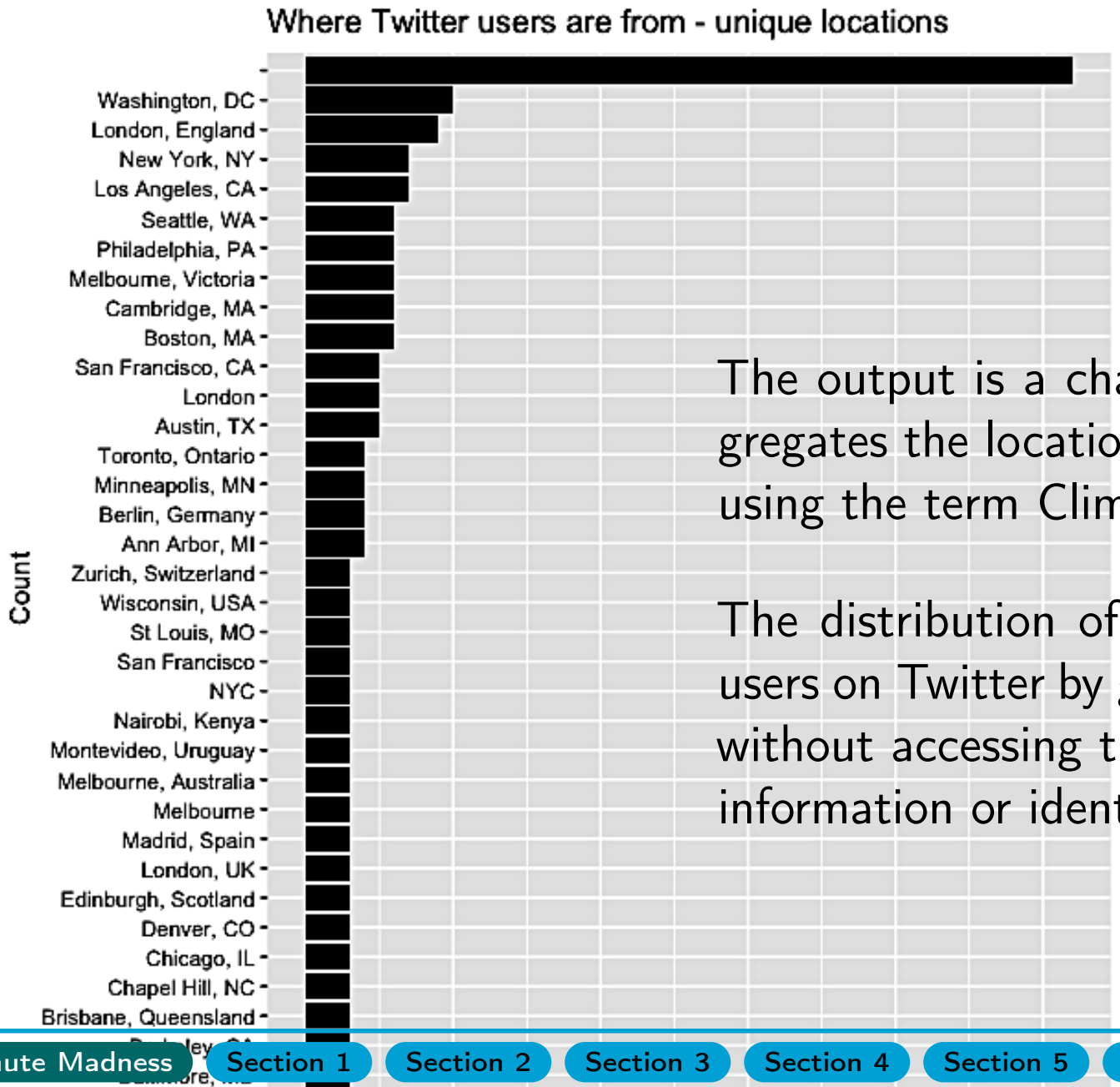

The output is a chart that aggregates the location of people using the term ClimateStrike.

The distribution of the public users on Twitter by geolocation without accessing their private information or identity.

Social media data is a valuable research source for a critical discourse analysis.

Sensitivity considerations for collecting data from social media platforms.

Data reflects the political opinions of the contributors their identity may be discovered through an online search.

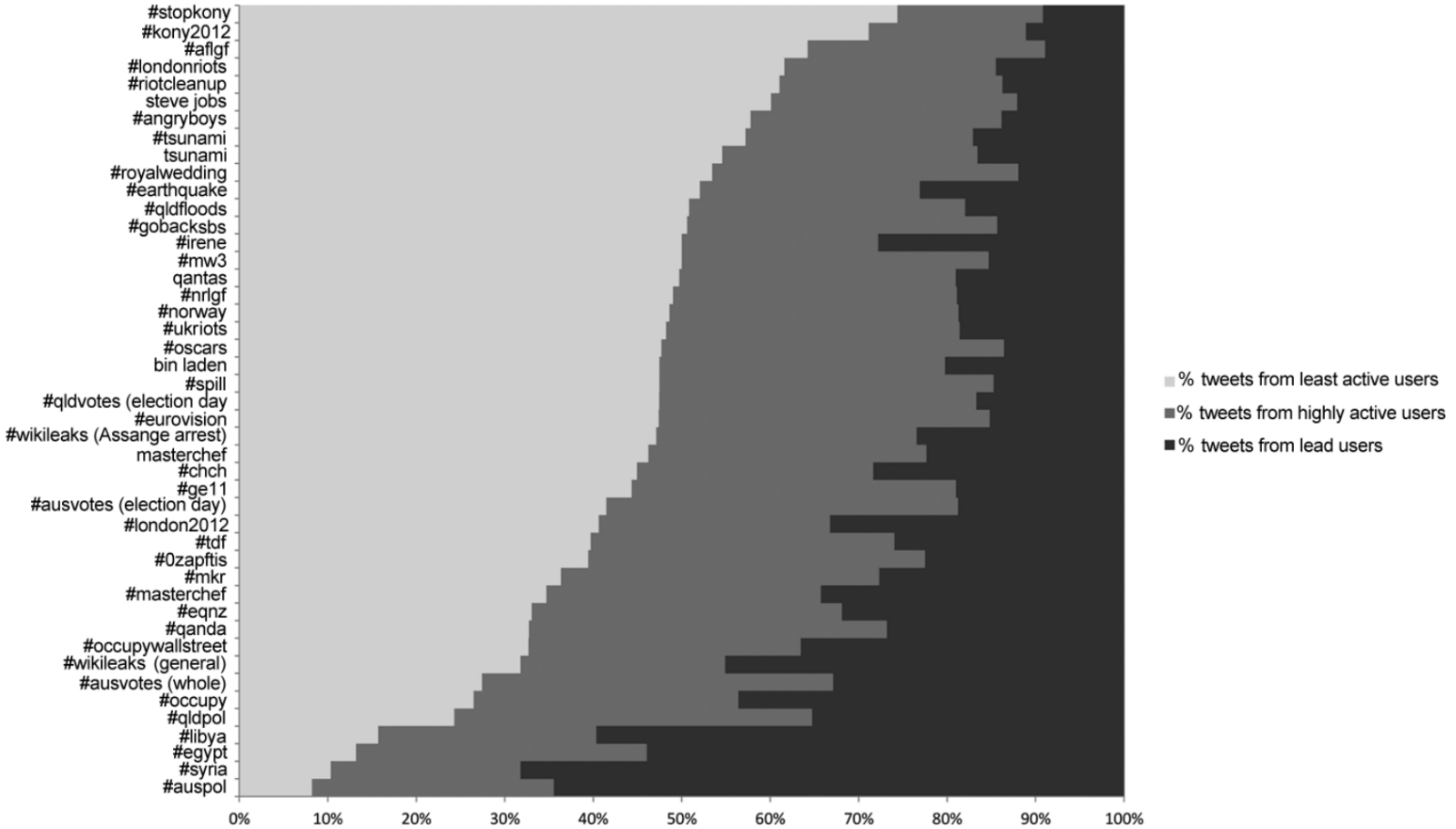

FIGURE 1 Relative contributions from the three user groups.

⇒ Image source: reproduced from Bruns and Steiglitz (2012: 171). Twitter activity patterns among user groups.

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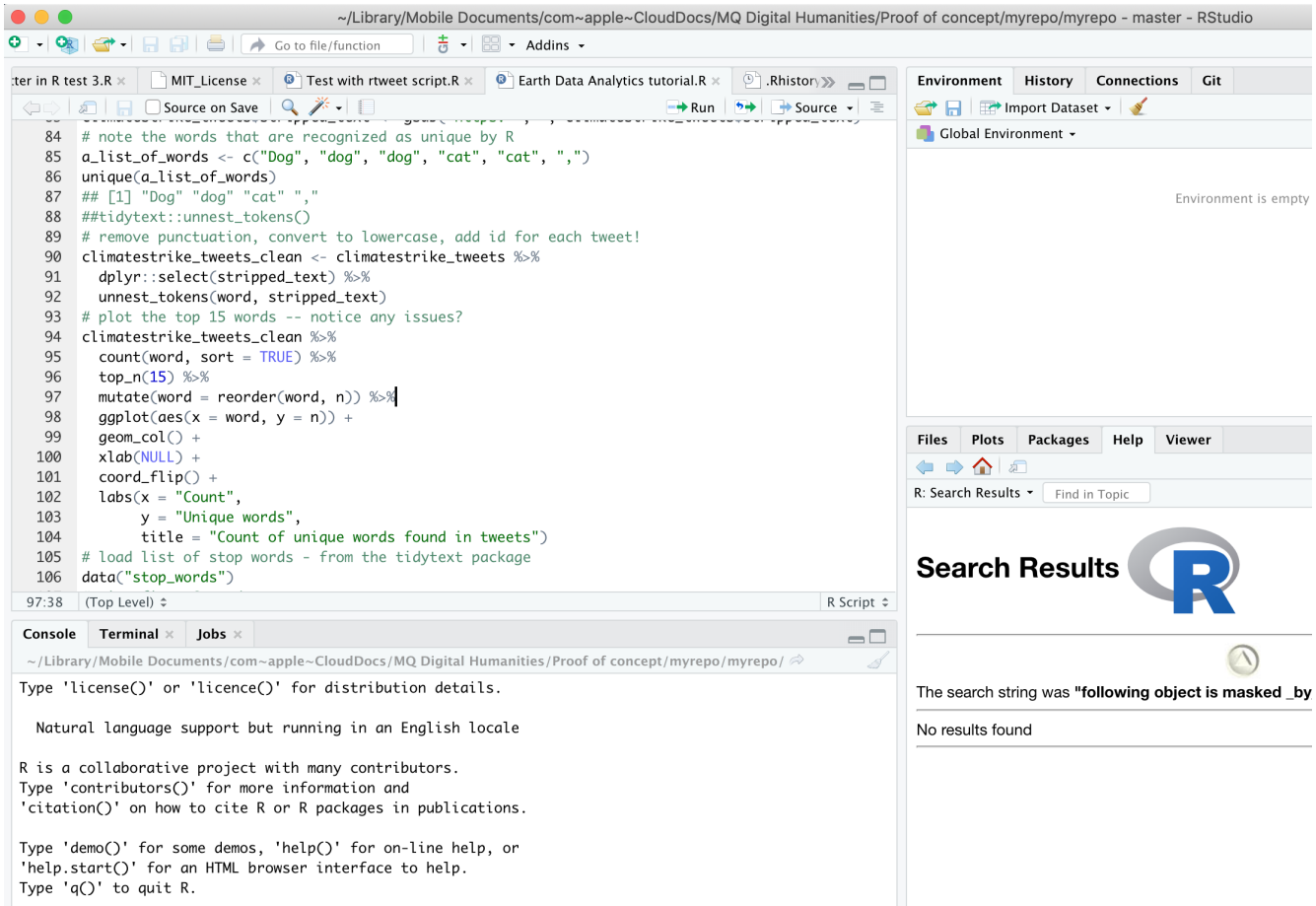

My research uses rtweet in Rstudio to gather communicative actions within a hashtag community. This informs the information flow around an issue within and among communities.

I use Twitter as the digital technology for my research due to public status of tweets which are by default public. My study considers the affordance of digital technologies, such as Twitter, for civic protest for social change.

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This proof of concept has three main goals:

(1) send request to Twitter's stream APIs

(2) retrieve data

(3) format data into a structure

As a social media researcher, I wanted to access public social media postings as data, so that I could analyse the data collected under a hashtag public and identify discourse circulation patterns. As a social media researcher, I wanted to extract tweets based on a hashtag through metadata (place).

Quality assurance

The acceptance tests for this proof of concept includes whether the data retrieved is in an accessible format that enables the exporting, sorting, collecting, analysis, and archiving of the data output.

The acceptance criteria includes the use of automated tools to access and manipulate the data output.

These acceptances have been met by this proof of concept.

Limitations of the proof of concept

(1) Access to data on Twitter requires a personal application programming interface (API) key. Source: https://developer.twitter.com/en/apps

(2) Before using this software a user requires a secret pair for the OAuth flow.

(3) The process of accessing Twitter changes frequently, so that software written to interact with the Twitter client requires frequent testing and revision.

(4) None of the four private pieces of identity and authentication information should ever be committed to public source control, in order to protect your application and/or user account from compromise or misuse. Source: https://twittercommunity.com/t/upcoming-changes-to-access-token-and-secret-management/130851

References:

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Pico Presentation: https://github.com/MQ-FOAR705/Walker$_R$oslyn$_P$ICO$_P$resentation

Photographic images are the author's own ©Roslyn Walker 2019 Taken on location at the Global Strike, 20 September 2019 in Sydney, at the Domain.