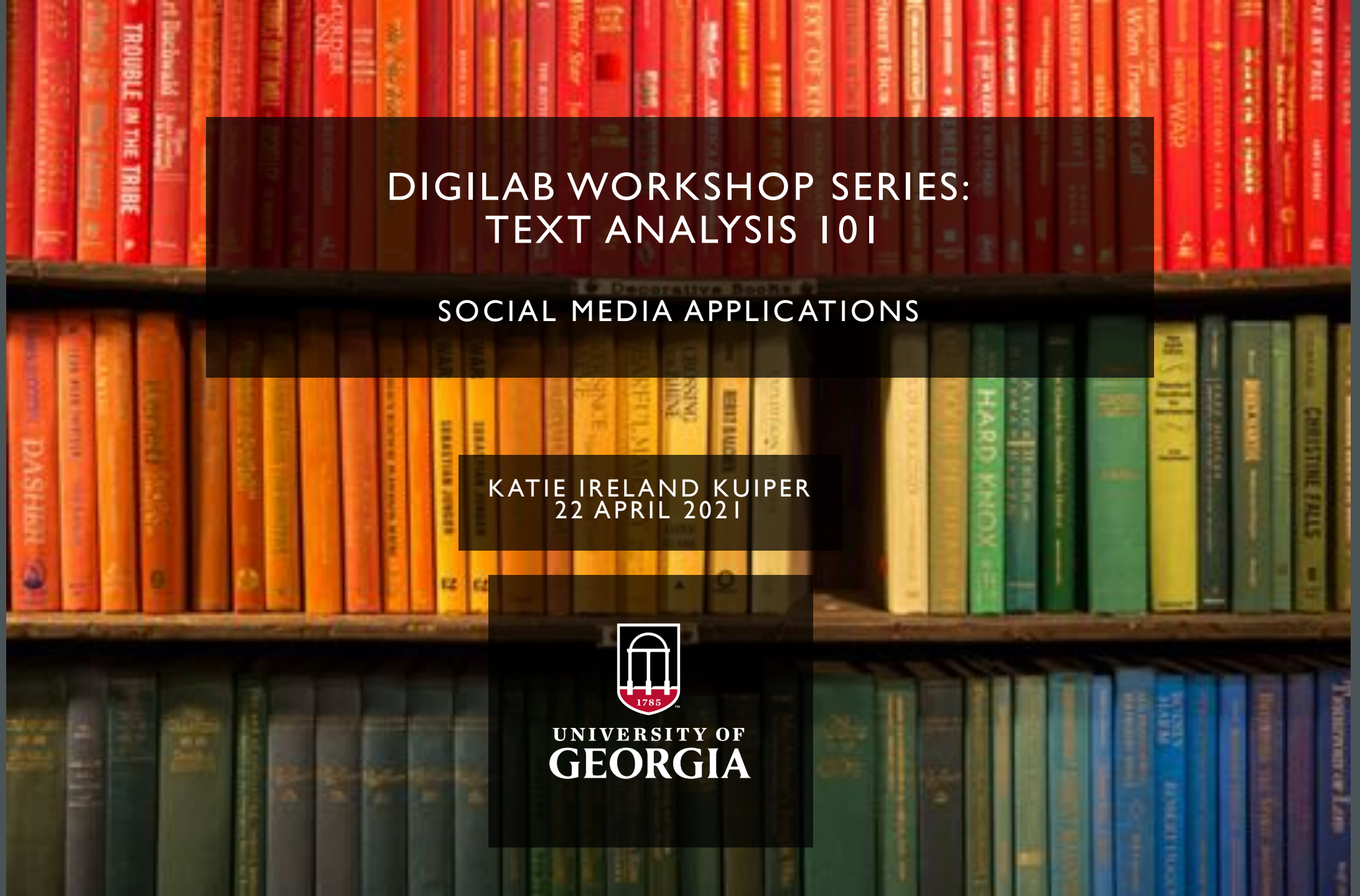


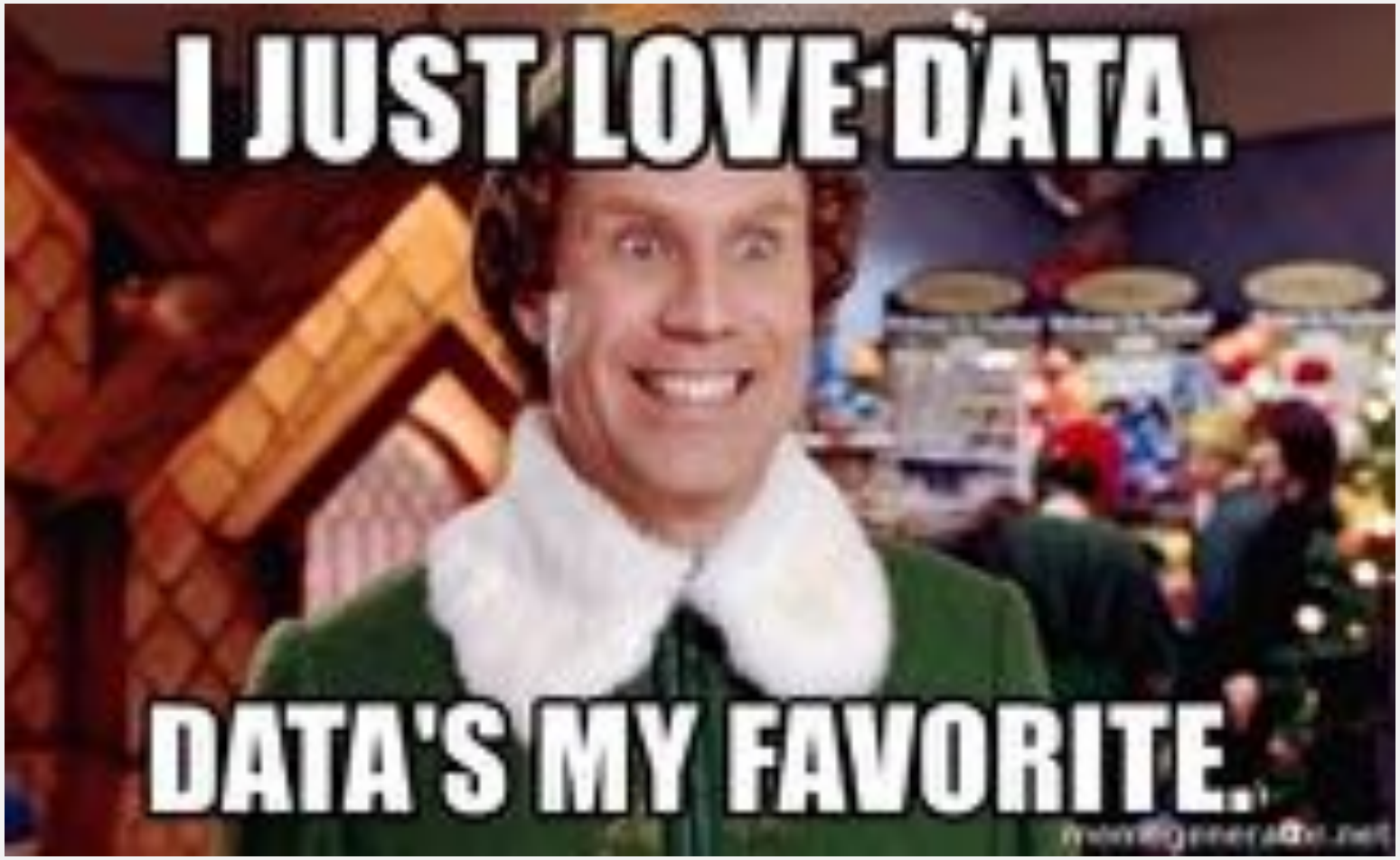
DIGILAB WORKSHOP SERIES: TEXT ANALYSIS 101

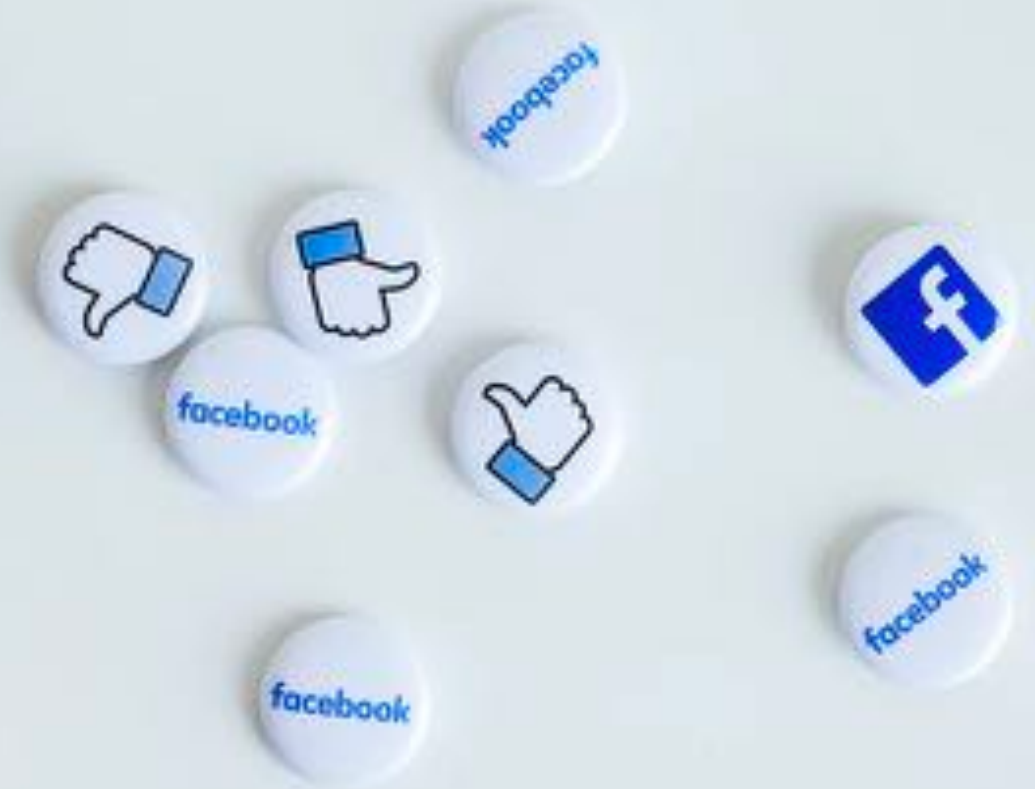
SOCIAL MEDIA APPLICATIONS

KATIE IRELAND KUIPER
22 APRIL 2021

UNIVERSITY OF GEORGIA

IN PREPARATION





APPLICATIONS OF SOCIAL MEDIA

METHODS: CORPUS ANALYSIS

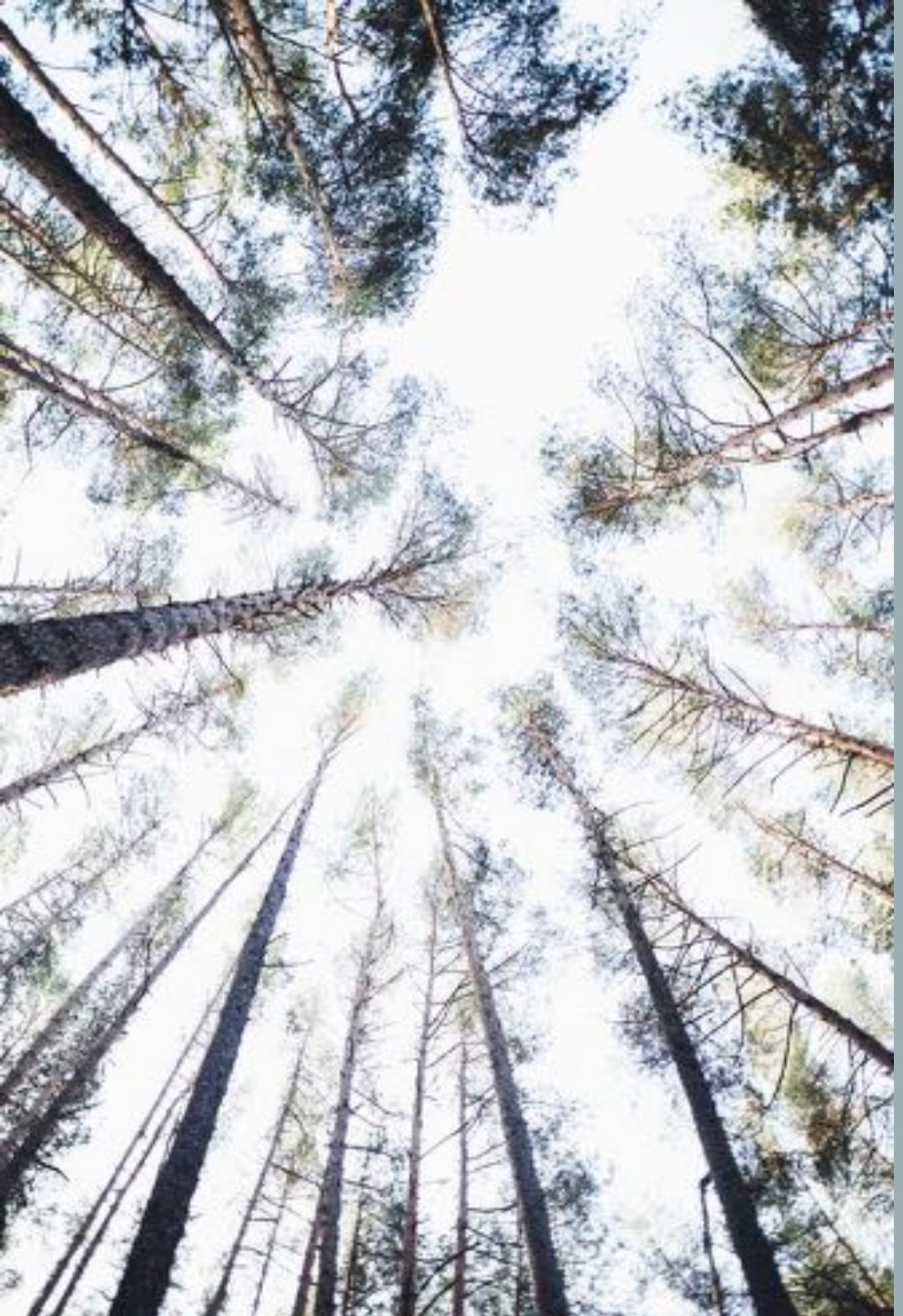
Gather data

Organize metadata & dataset(s)

Annotate and format

Analyze

- **tidytext**: helpful for data formatting and visualization; works well with other packages in the Tidyverse (Silge & Robinson 2016)
- **quanteda**: incredibly useful package; includes preprocessing abilities, dtm function, as well as statistical analyses options like document classification and topic modeling
- **tokenizers**: useful options for text analytics, including tokenization and stemming
- **ggplot2**
- **ggraph**
- **igraph**
- **Sentiment analysis** using quanteda and the AFINN lexicon



ADDITIONAL RESOURCES

DATA SOURCES

- Linguistic Data Consortium
- The World Wide Web
- Kaggle.com: many pages of social media datasets, including tweets, and others: example: disaster tweets dataset, Instagram data, emojis, reddit, and many many others.
- Stanford SNAP: large network dataset collection, including data from amazon, social media, Wikipedia and others
- Network Repository: including social networks, biological, graph data and tools for analyzing and comparing available datasets

iScience Maps: web-based option for getting Twitter data, with options for sorting and analyzing the data

Naoyun: software for connecting Twitter data with Gephi, with options for visualizing "live Twitter activity"

Netlytic: uses APIs to collect public data from Twitter, YouTube, and RSS feeds. Includes free and paid user options, with network and text analytics

Socioviz: get and analyze Twitter data in this web-based environment

The Chorus Project: free web-based option for analyzing and obtaining Twitter data; based out of the UK

Webometric Analyst: free Windows-based program for gathering data, including Social media, from the Statistical Cybermetrics Research

Digital Footprints: obtain and analyze Facebook data; web-based service available for researchers, based out of Aarhus University

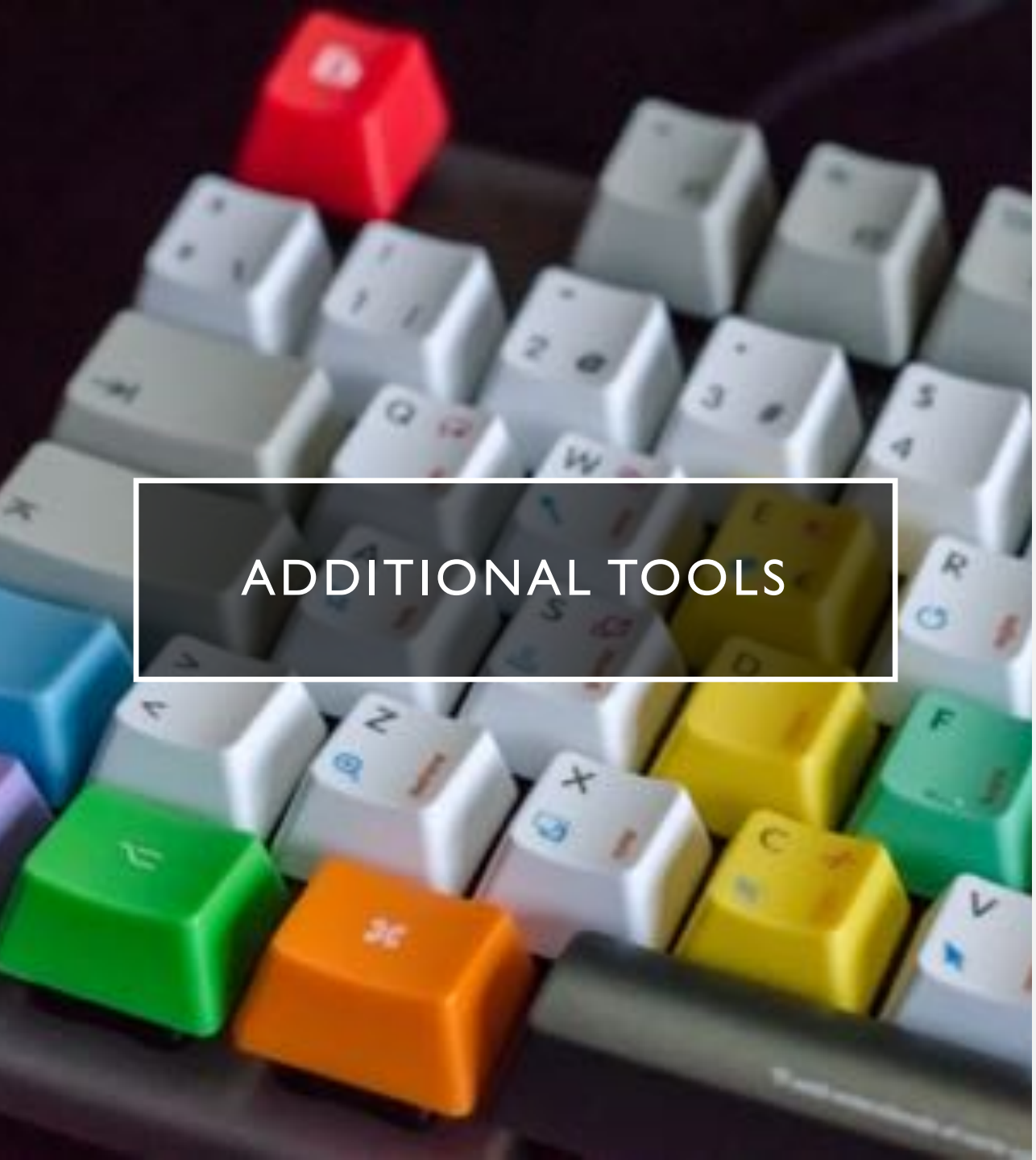
InfoExtractor: no longer maintained, but offers options for getting data from different URLs

Snoopreport: free for researchers; focus on obtaining Instagram data

- **streamR:** Access to Twitter Streaming API via R
- **twittR:** also useful for getting twitter data in R
- **Rfacebook:** Rfacebook: Access to Facebook API via R
- **instaR:** access Instagram data via the Instagram API; an approved developer account is required
- **RedditExtractoR**: utilizes Reddit API to obtain posts, comments, and subreddit information
- **Rtweet**: useful package for getting Twitter data, with options for accessing followers, retweets, geolocation, and additional metadata.

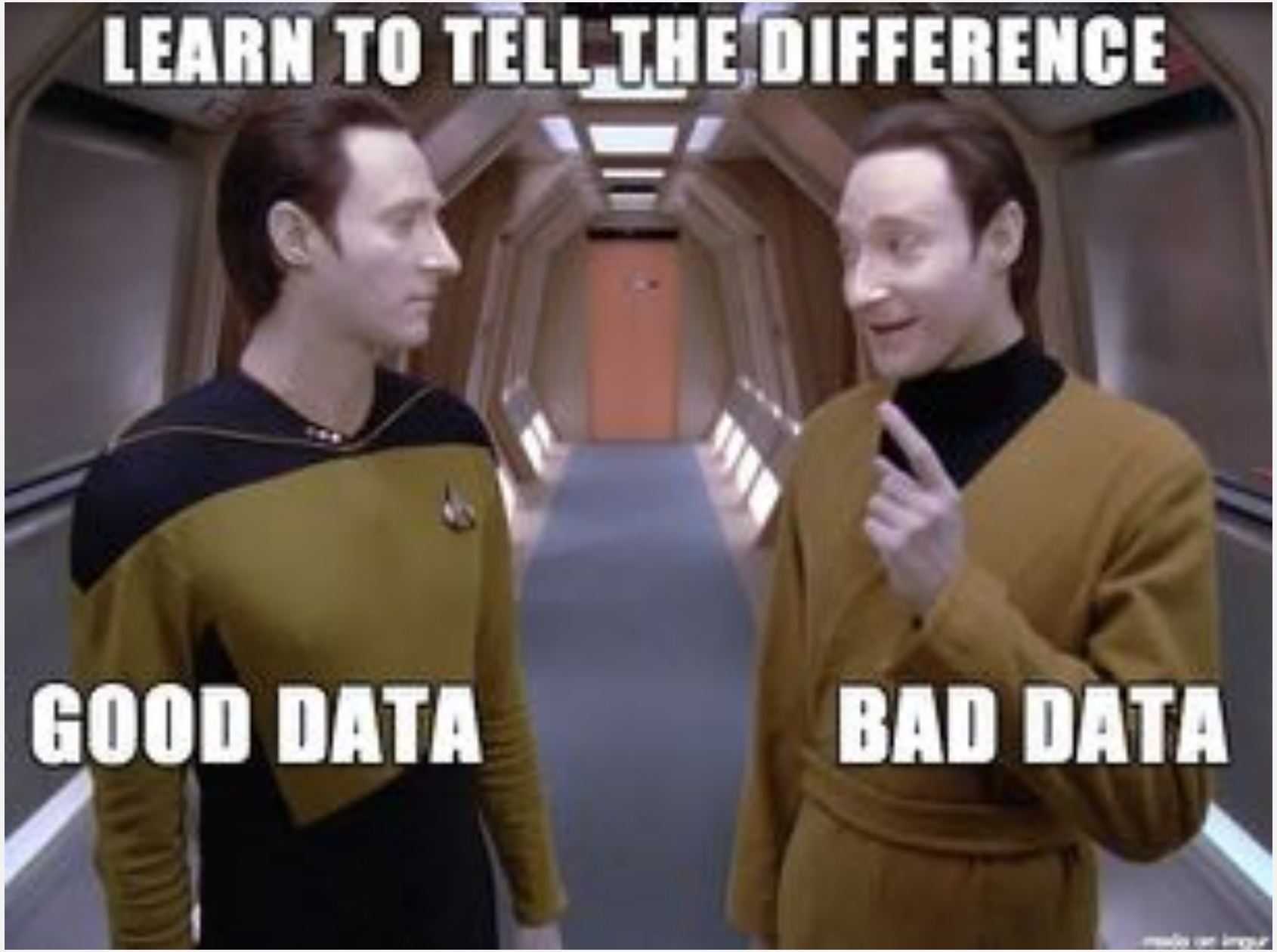
PYTHON LIBRARIES

- **spaCy**: pos tagging, tokenization, dependency parsing, etc. Check out this tutorial for more about NLP with spaCy
- **CoreNLP**: lemmatization, pos tagging, tokenization, named entity recognition
- **NLTK**: Natural Language ToolKit; contains over 50 corpora, includes options for tokenization, tagging, parsing, document classification
- **Gensim:** useful for various types of topic modeling
- **PyNLPI:** open-source NLP library; great for of tasks ranging from building simplistic models and extraction of n-grams and frequency lists, with support for complex data types and algorithms
- **Pattern**: useful for web-crawling (webscraping) for creating your own corpora; includes options for tokenizing, pos tagging, etc
- **Polyglot**: very useful library for other languages than English
- **TextBlob:** includes options for pos-tagging, noun phrase extraction, classification, translation and sentiment analysis



ADDITIONAL TOOLS

- AntConc: A free corpus analysis toolkit for concordancing and corpus-based methods
- Voyant Tools: web-based text reading and analysis environment
- Google Books Ngram Viewer: online search engine that charts the frequencies of any set of comma-delimited search strings
- Wordseer: text analysis environment that combines visualization, information retrieval, and nlp methods

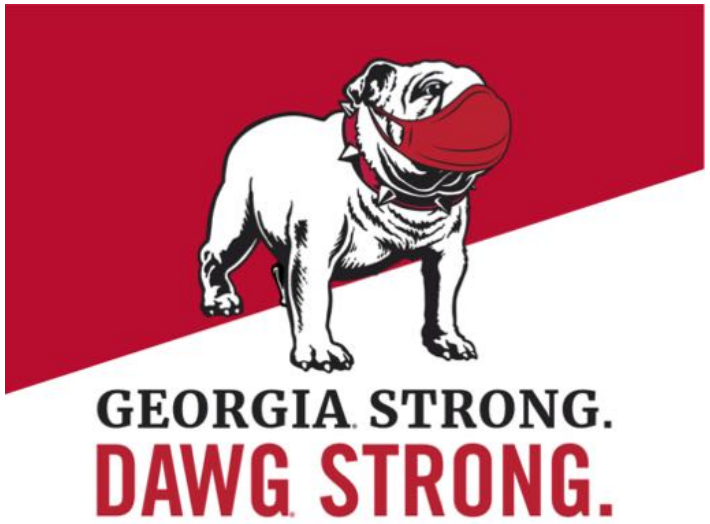

LEARN TO TELL THE DIFFERENCE
GOOD DATA
BAD DATA

RECOMMENDED RESOURCES

- Silge and Robinson's Text Mining with R
- Social Media Research using R
- Rswirl package
- Python 3 tutorials
- Social Media Analytics: helpful overview of options and types of analyses
- Text Analysis Glossary
- Corpus Approaches to Social Media (Rüdiger & Dayter 2020)
- DigiLab tutorials & Linked-in Learning Tutorials
- Twitter and Tear Gas by Z. Tufekci
- UGA CQP Server: new social media corpus BLM, added courtesy of Jordan Graham and Dr. Hale!

COURSES AT UGA

- Maymester 2021:
  - #TheDigitalLifeofLanguage ROML 4120/6120 & LING 4910
- This Fall:
  - Natural Language Processing: LING 4570/6570
  - Style: ENGL/LING 4826/6826
  - Text and Corpus: ENGL/LING 4886/6886
- Note: These all count toward the Digital Humanities Undergraduate certificate!



THANKS FOR LISTENING!

KATHERINE.KUIPER25@UGA.EDU

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Whether just starting your work, or trying to make sense of your research, schedule an appointment for our Data Office Hours and bring your data (text, archival information, numerical data, etc.) for advice and guidance on your project. Expertise in corpus linguistics, Excel, and R, among other tools for data structuring and visualization.

TUESDAYS • 4:00-5:00
WEDNESDAYS • 2:00-3:00

To schedule an appointment visit:
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