

The Impact of Digital Sound: A Twitter Reception Study

Presented at ARSC 2015
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In a few words...

This study is an exploration of Twitter data as a source of information on the impact of digital sound archives

Six archives under consideration:

- British Library Sounds
- Europeana Sounds
- Internet Archive Audio Archive
- Library of Congress National Jukebox
- PennSound
- UbuWeb

Bibliometrics v. webometrics

Citations:

- Rich source of information on scholarly use

Altmetrics:

- Quick results, compared to citations
- Good for study of readers and reception, as well as of research outputs other than scholarly articles
- Useful for measuring non-academic impacts

Why Twitter for this study?

- Humanities & social science research has highest number of social media mentions per publication of all disciplines
- Humanities & social sciences have higher altmetric density than citation density
- Twitter provides more altmetric scores than any other social media source

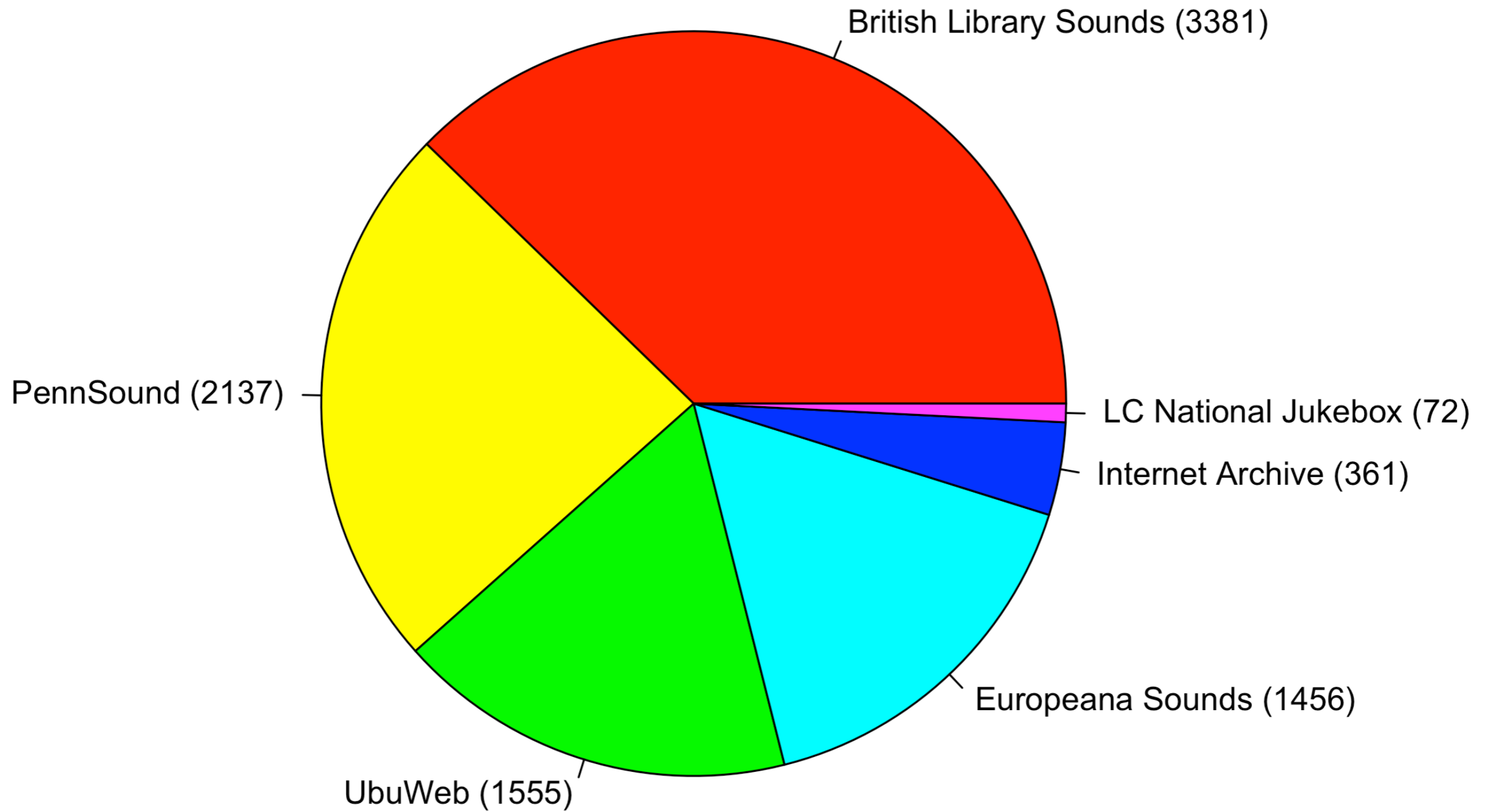
Research questions

- How to characterize the interactions of users with digital sound archives on Twitter?
- What can tweets tell us that is relevant to the preservation and dissemination of historical sound?
- Through observation of user engagement, what can we infer about values, meanings, relationships to digital sound?

Data + methodology

- 9,000 tweets collected over 8 months using TAGS, or Twitter Archiving Google Spreadsheet (Hawksey)
- Text processing and word frequency analysis on tweets using R programming language
- Quantitative and qualitative analyses
- Grounded approach—except for innovation impacts, which had to be sought

Total Tweets Per Archive

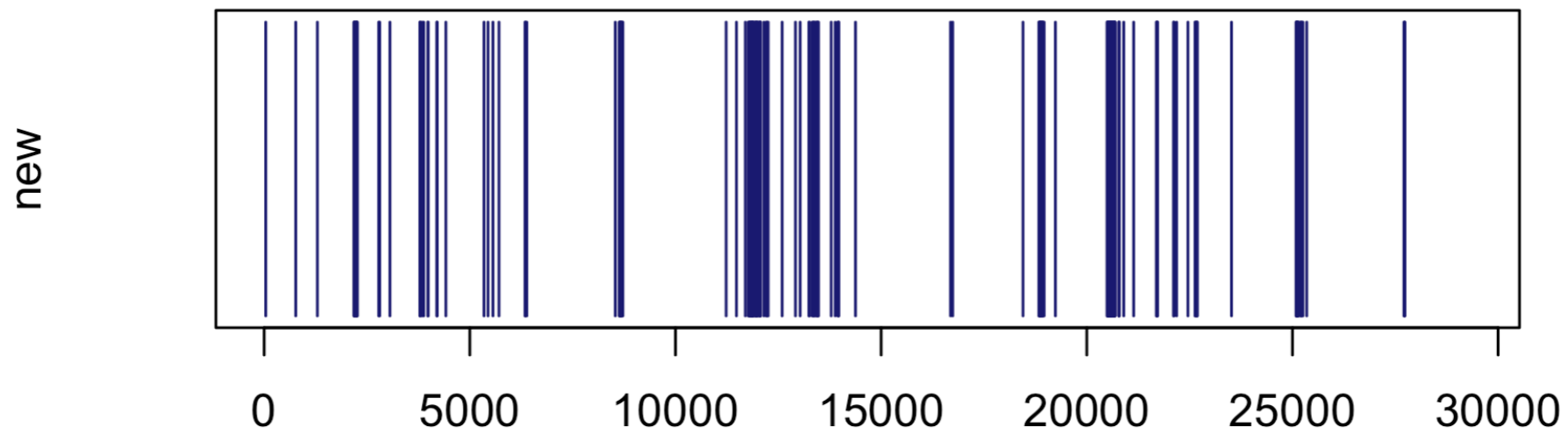


Limitations

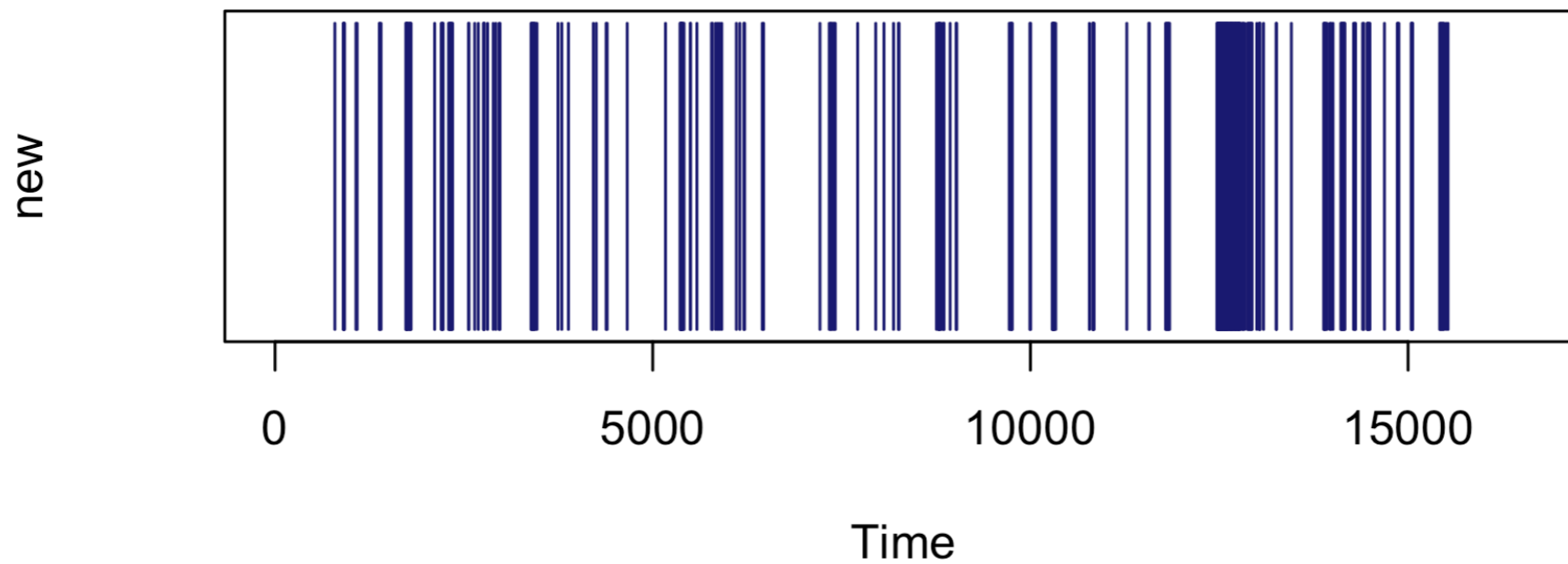
- Twitter APIs do not support collection of tweets older than 7 days
- Search API has some documented biases toward central users (peripheral activity may get lost)

Recency

Dispersion Plot of 'new' in British Library Sounds Tweets



Dispersion Plot of 'new' in PennSound Tweets



Odd and ends

Twitter users have a love of the bizarre. Why?

- Real or perceived rarity (existence value)
- Specialized interest
- Identification

**32nd anniversary of
CD & CD player (n=109)**



**Leicester sock
knitting factory (n=50)**

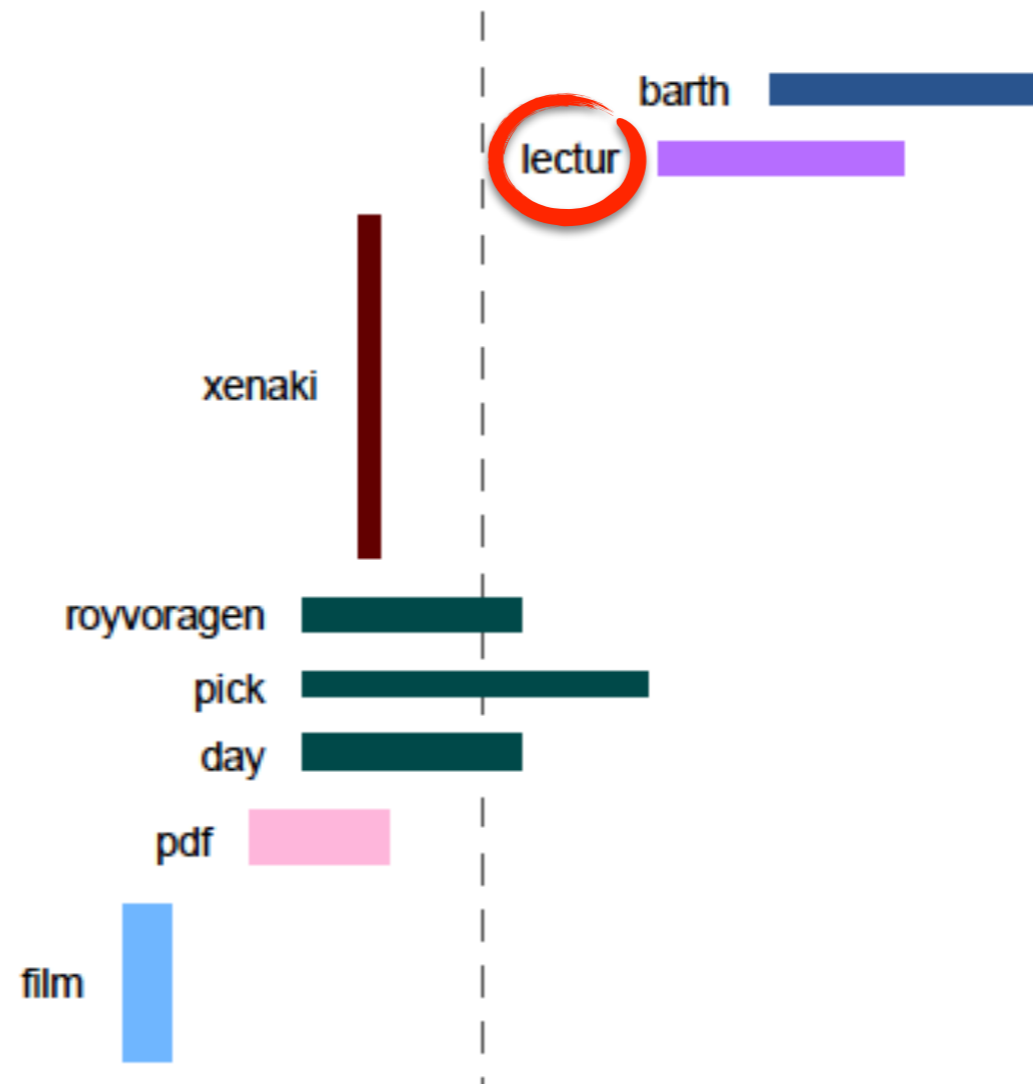


**Gertrude Stein's
#valentine (n=81)**

Pedagogy

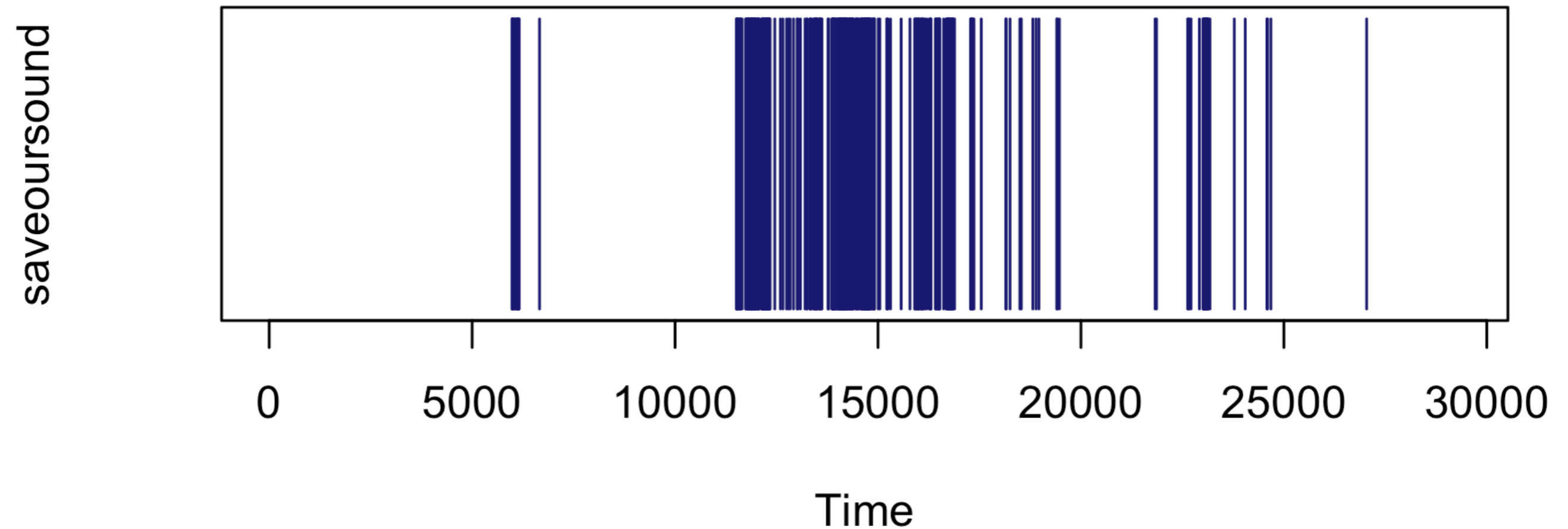
@ubuwweb
lecture (n=26)

@pennsound
lecture (n=31)



Community

Dispersion Plot of #saveoursounds in BLS Tweets



Innovation impacts

UbuWeb corpus:
terms associated with
'copyright' (n=8)

	copyright
<i>twentieth</i>	0.47
<i>amus</i>	0.35
<i>centuri</i>	0.35
<i>centuryäü</i>	0.35
<i>godz</i>	0.35
<i>infring</i>	0.35
<i>peril</i>	0.35
<i>relinquish</i>	0.35
<i>human</i>	0.25

Future directions

- Further collection and analyses of Twitter data
- Collection of citation references
- Comparative research on Twitter and citation data

Thank you!

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