

Artist Popularity: Do Web and Social Music Services Agree?



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Practical implications

No two indices are completely equivalent: we can use them to promote diversified recommendations
 Service-based indices change at a much lower speed
 The Web index is highly dynamic

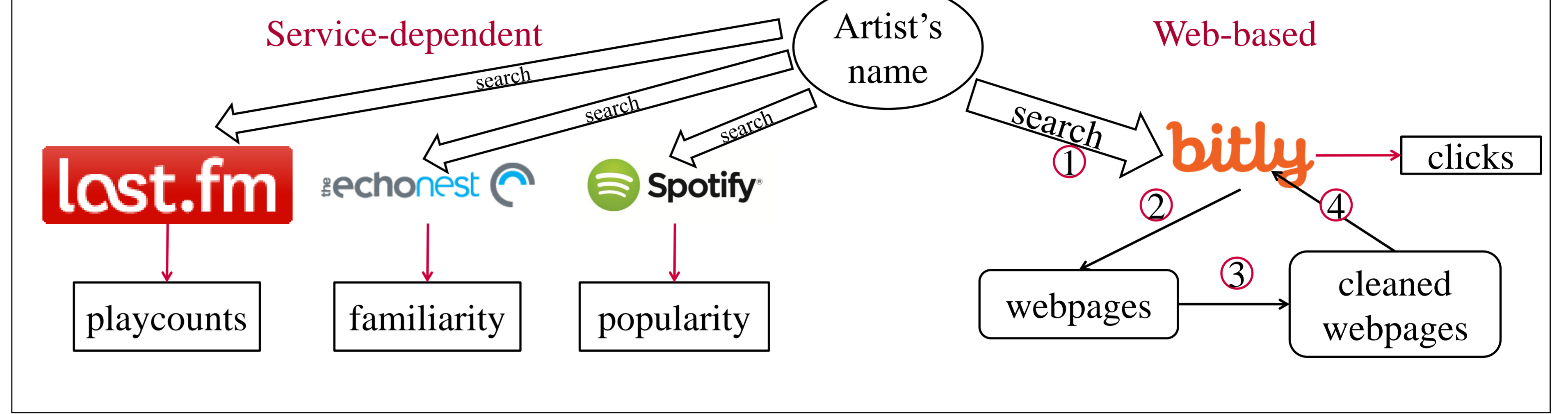
Limitations

No constraint on regions, but concerts and culture are local events, important within a specific community
 Positive vs negative popularity: exploit the context (where an artist is mentioned) in the Web index

Open questions

Are users more interested in *currently* popular artists or they prefer those that are *always* popular?
 Should all the reasons why an artist could be popular considered equally important?

Popularity indices



Check the source code and dataset at:

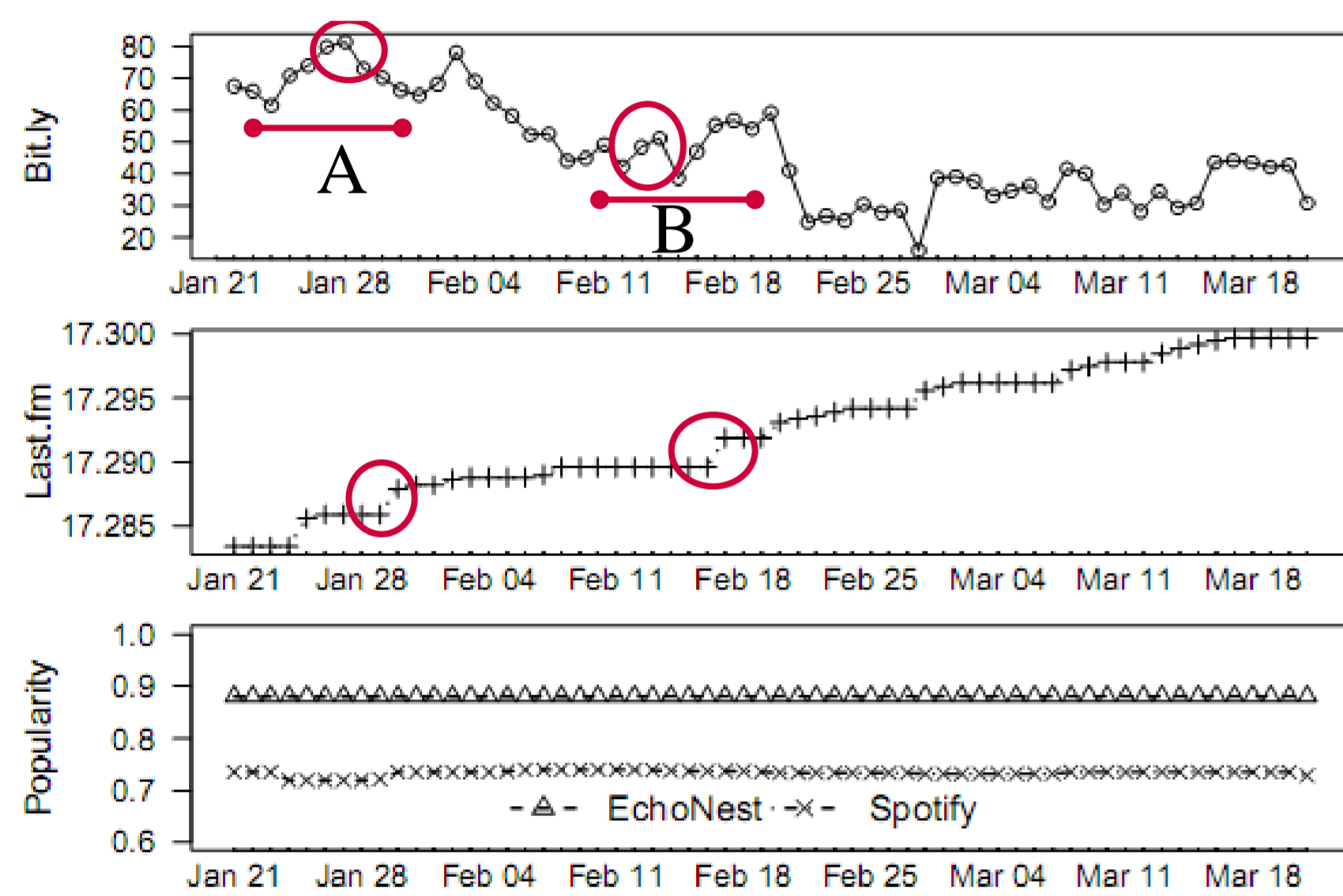
<http://www.cwi.nl/~media/papers/ICWSM13>



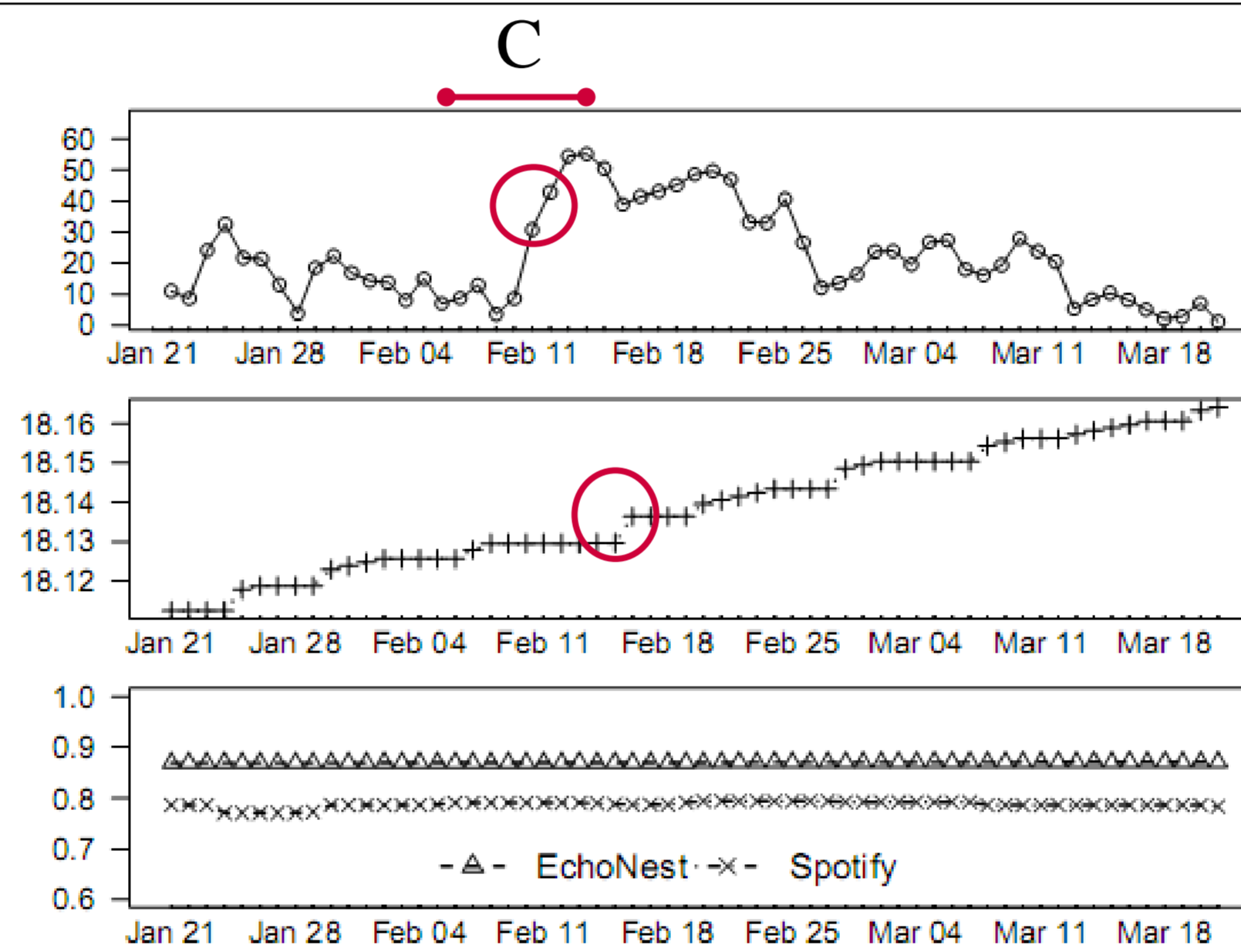
Dataset

1,312 artists
 Timestamped popularity indices (~ every 3 hours)
 Jan 21 – Mar 21
 including the Grammy awards and The Oscars

Temporal dynamics

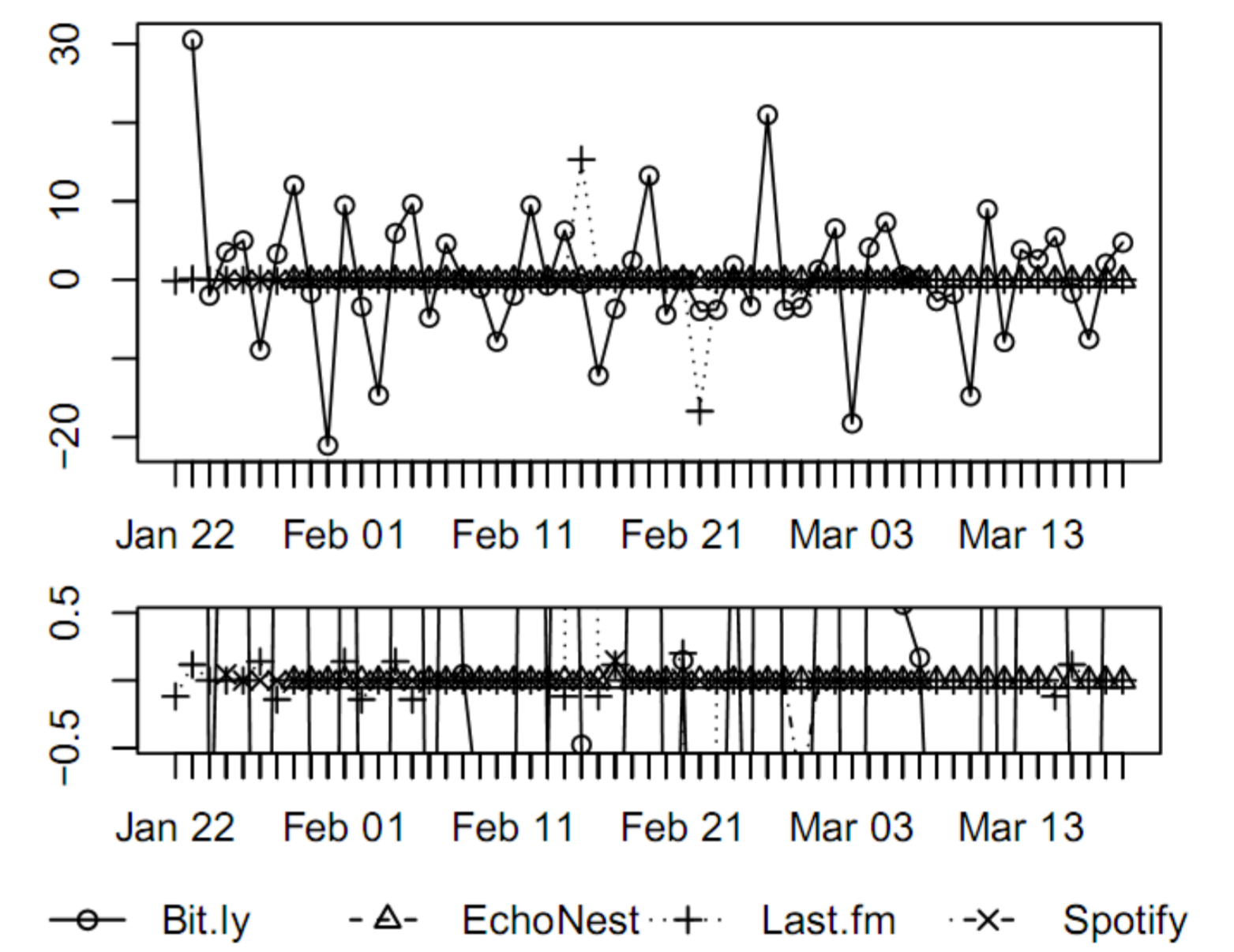


(a) Lupe Fiasco

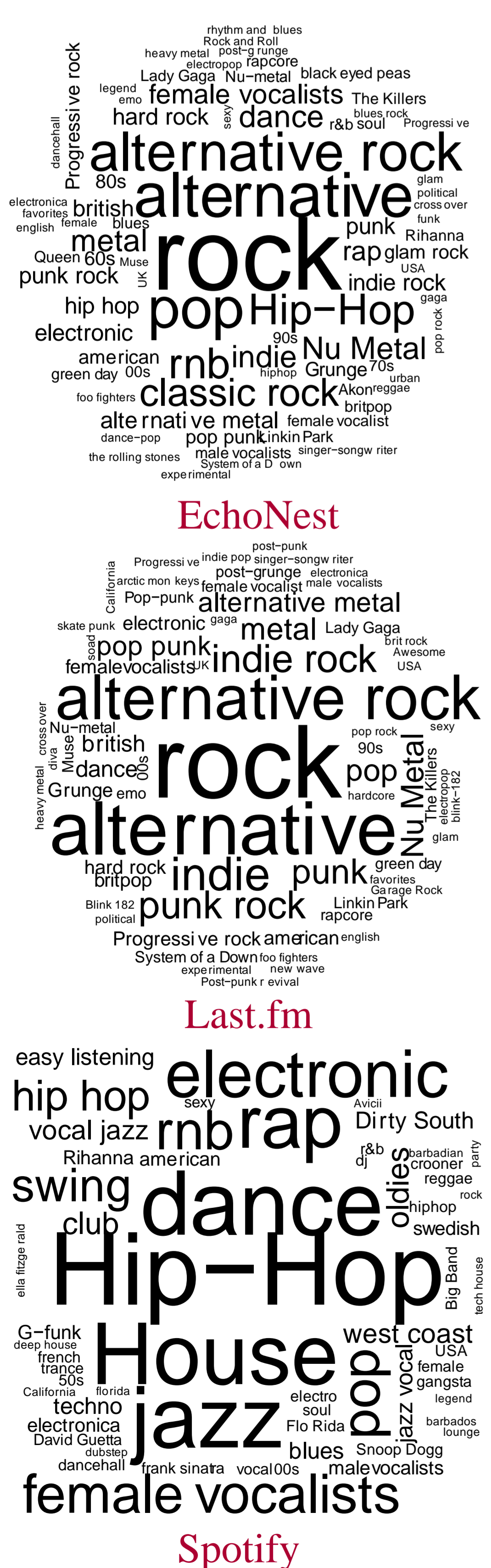


(b) The Black Keys

Stability of popularity rankings



Tag clouds



Correlations

ρ	pop _E	pop _L	pop _S
pop _E	1.00		
pop _L	0.88	1.00	
pop _S	0.75	0.66	1.00

Spearman

τ	pop _E	pop _L	pop _S
pop _E	1.00		
pop _L	0.72	1.00	
pop _S	0.56	0.47	1.00

Kendall



Ranking-based comparison

Bit.ly	EchoNest	Last.fm	Spotify
One Direction	Coldplay	The Beatles	Johnny Cash
Kelly Clarkson	Rihanna	Radiohead	Frank Sinatra
Anne Hathaway	Radiohead	Coldplay	Elvis Presley
Taylor Swift	RHCP	Muse	Kanye West
Justin Bieber	Eminem	RHCP	Snoop Dogg

Top-5 popular artists throughout the timespan of our dataset

Change in Jaccard similarity when more artists are considered

$$J(S, T)@N = \frac{|S[1..N] \cap T[1..N]|}{|S[1..N] \cup T[1..N]|}$$

