Measuring Media Slant

Using Data of Daily Newspaper in Post-handover Hong Kong

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East China University of Political Science and Law, Shanghai, 17 Oct. 2020

Why this topic?

- Media heavily shapes people’s perception on certain institution, and further affects public opinion and even political ideology, especially in a society where information flows freely.

Research Questions

- **From media slant to media polarization?**
- Does media slant affect media reporting?
- What drives media polarization?

Literature Review: How to Measure Media Slant

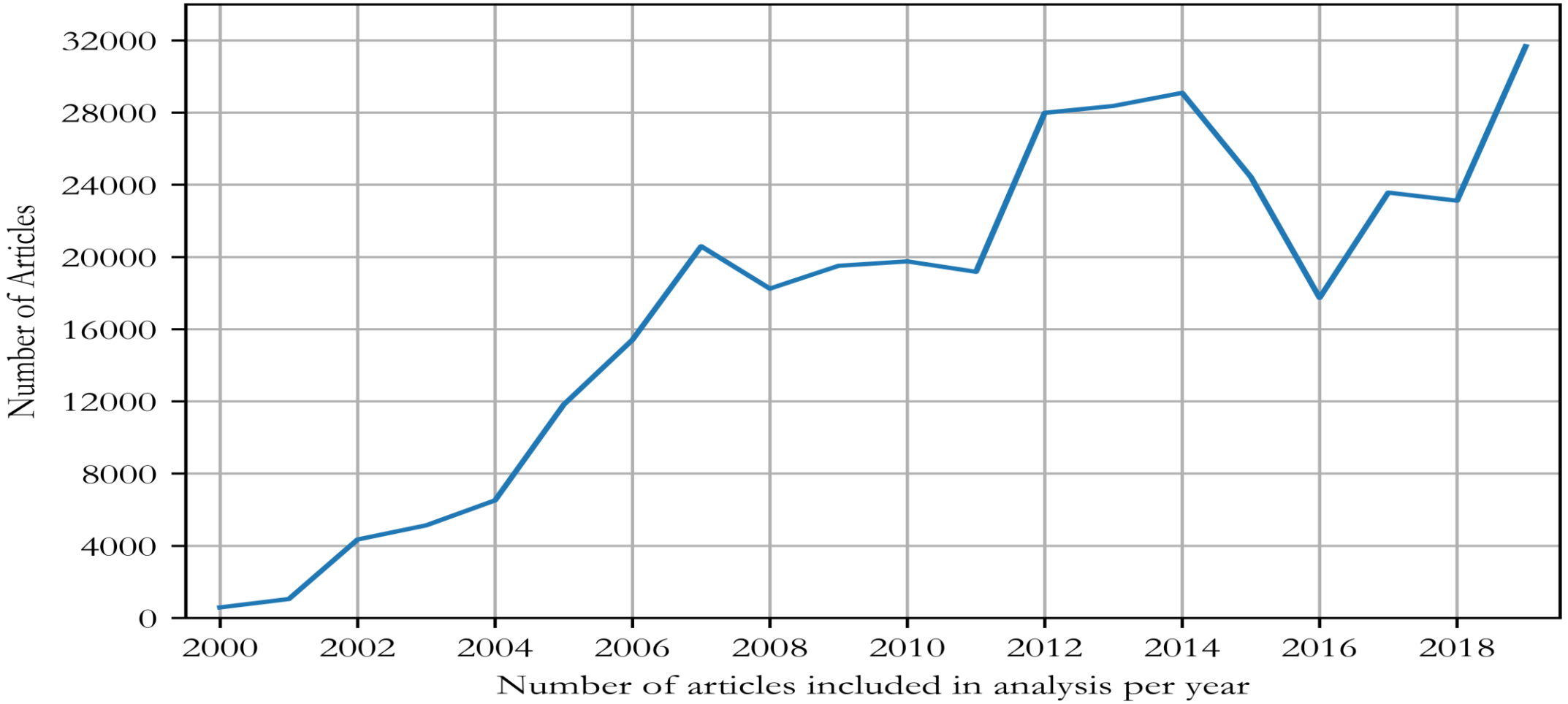
- Machine learning based on manual definition
  - Very subjective, and sometimes arbitary
- Gentzkow & Shapiro (2010): measure the similarity of a news outlet's language to that of a congressional Republican or Democrat.

Data

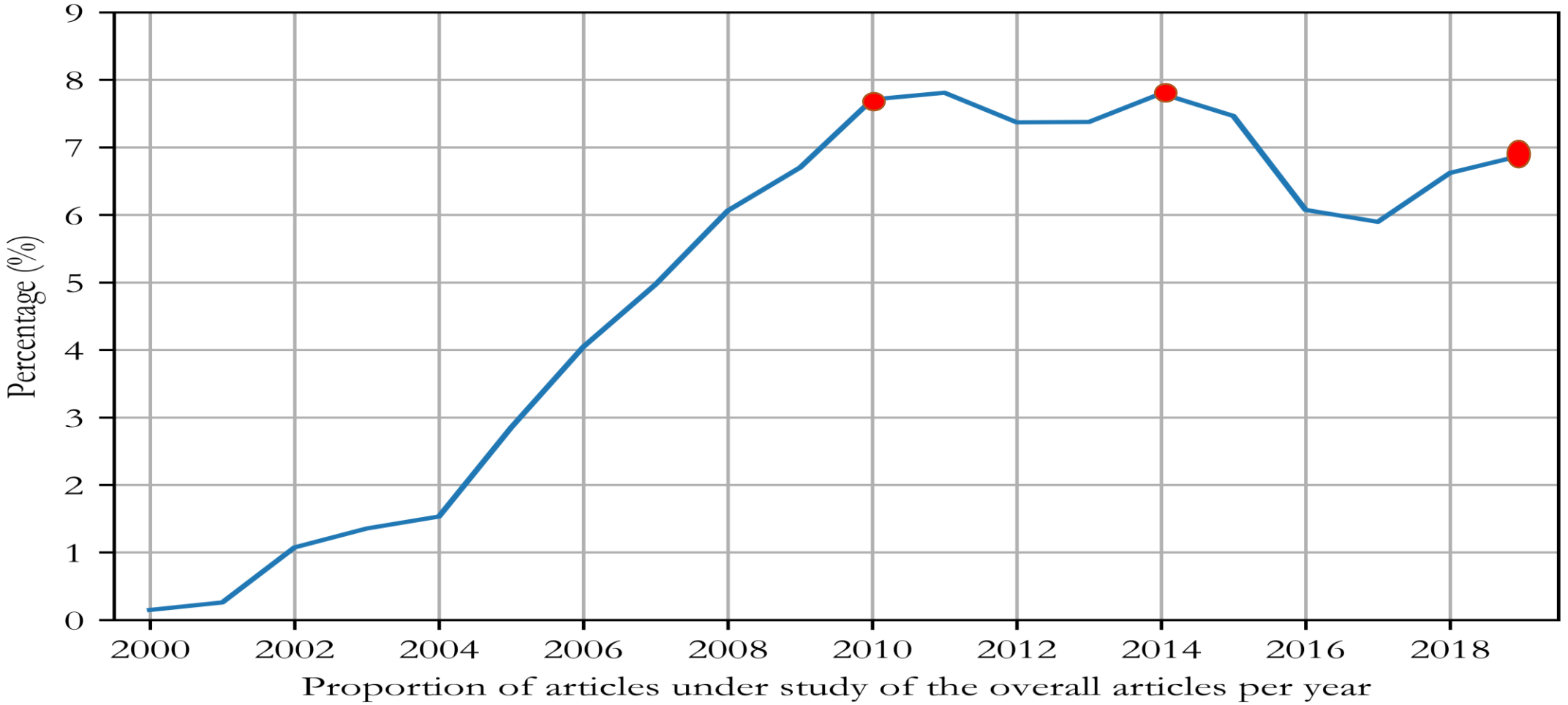
- Media reporting on CCP by Hong Kong newspapers in the post-handover era.
- **539381** unique articles, 15 newspapers, 2000-2019

Media Coverage

Media Coverage (number of articles)



Media Coverage (percentage)

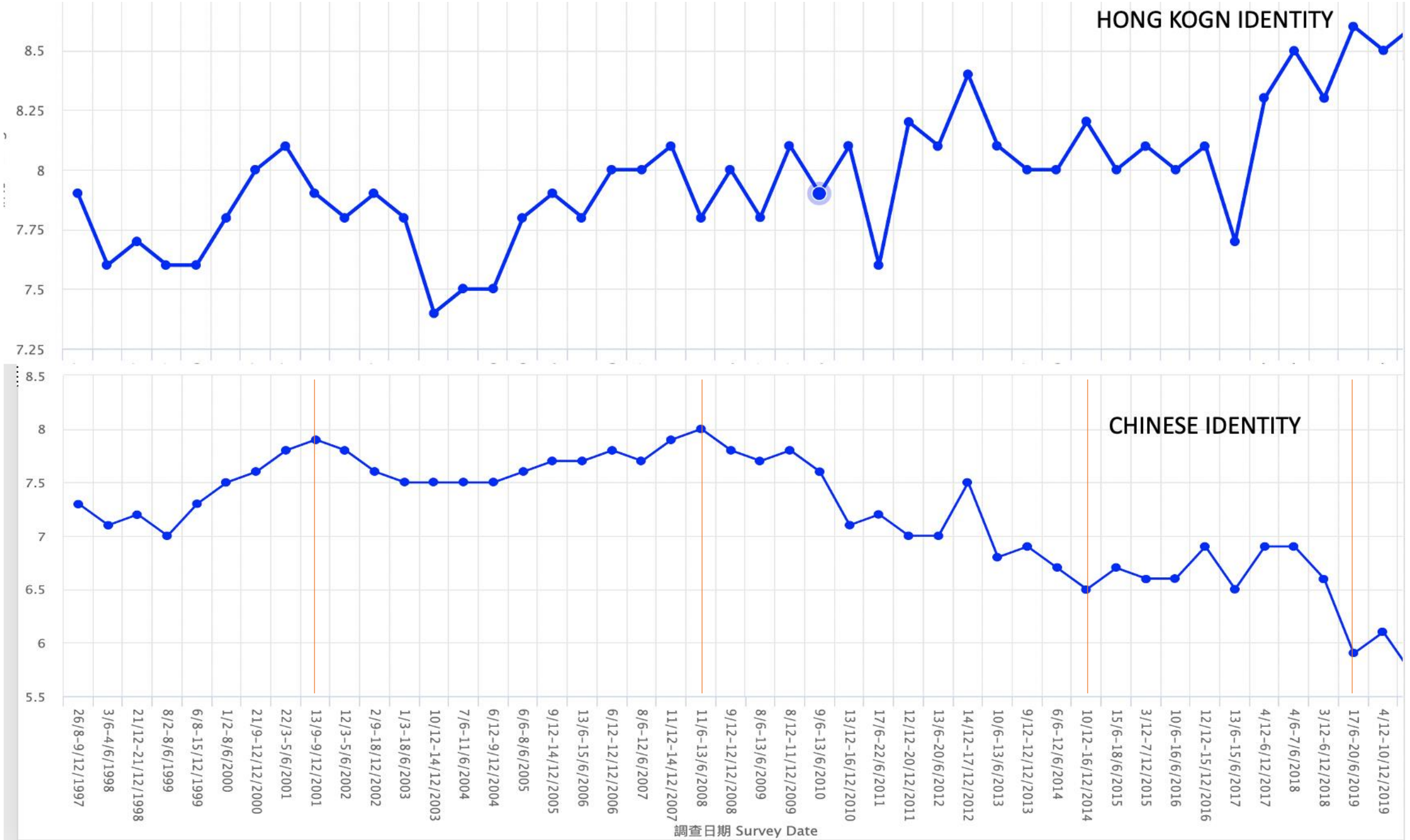


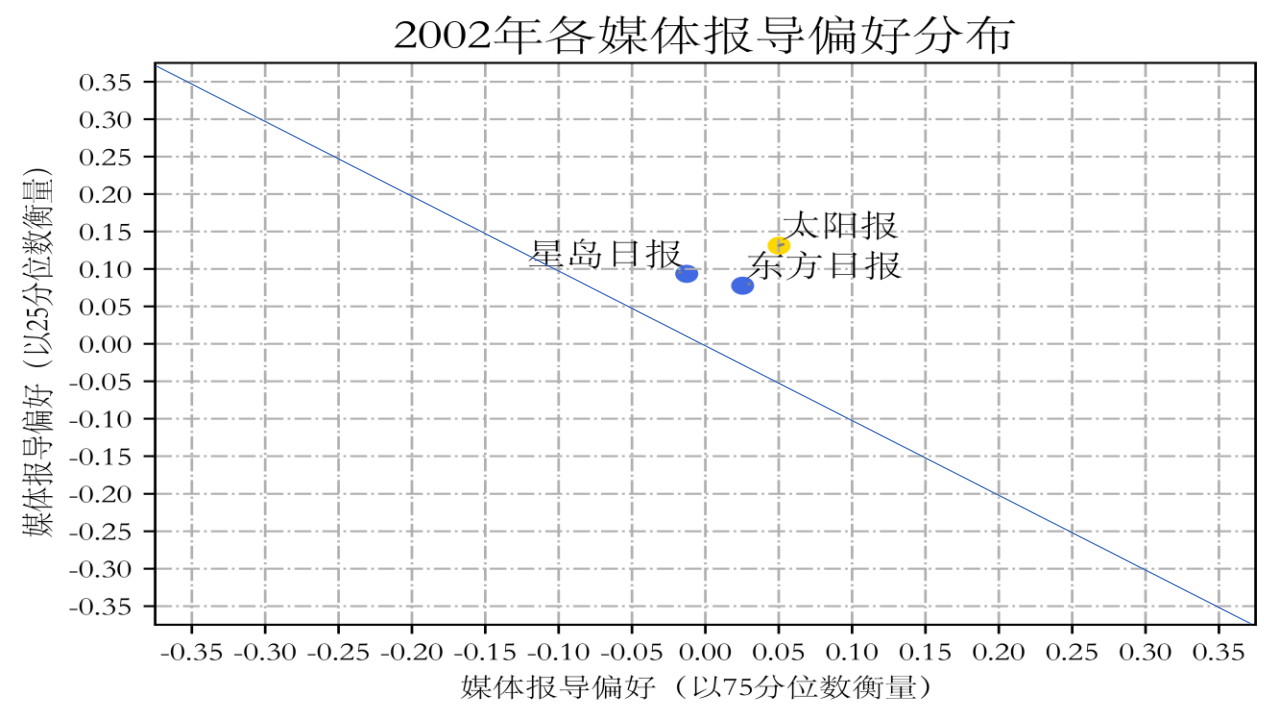
Data preprecessing

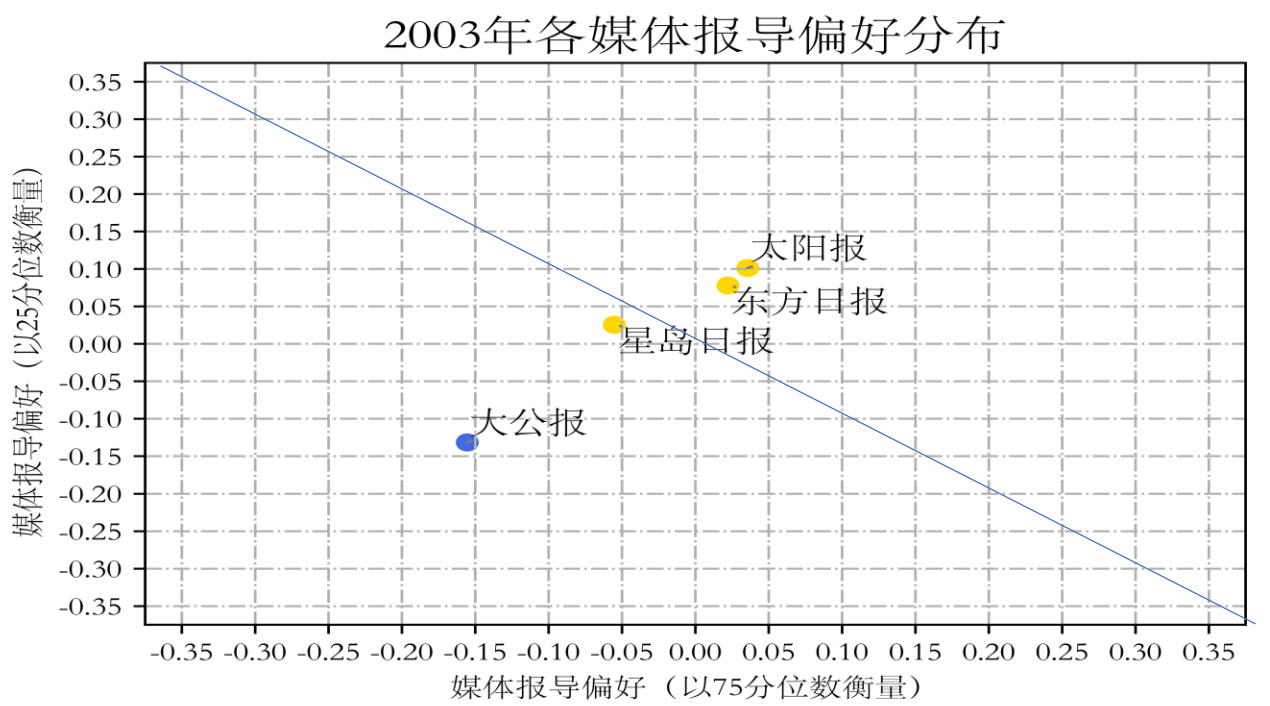
- Removing extremely common words and stop words from the original text scripts

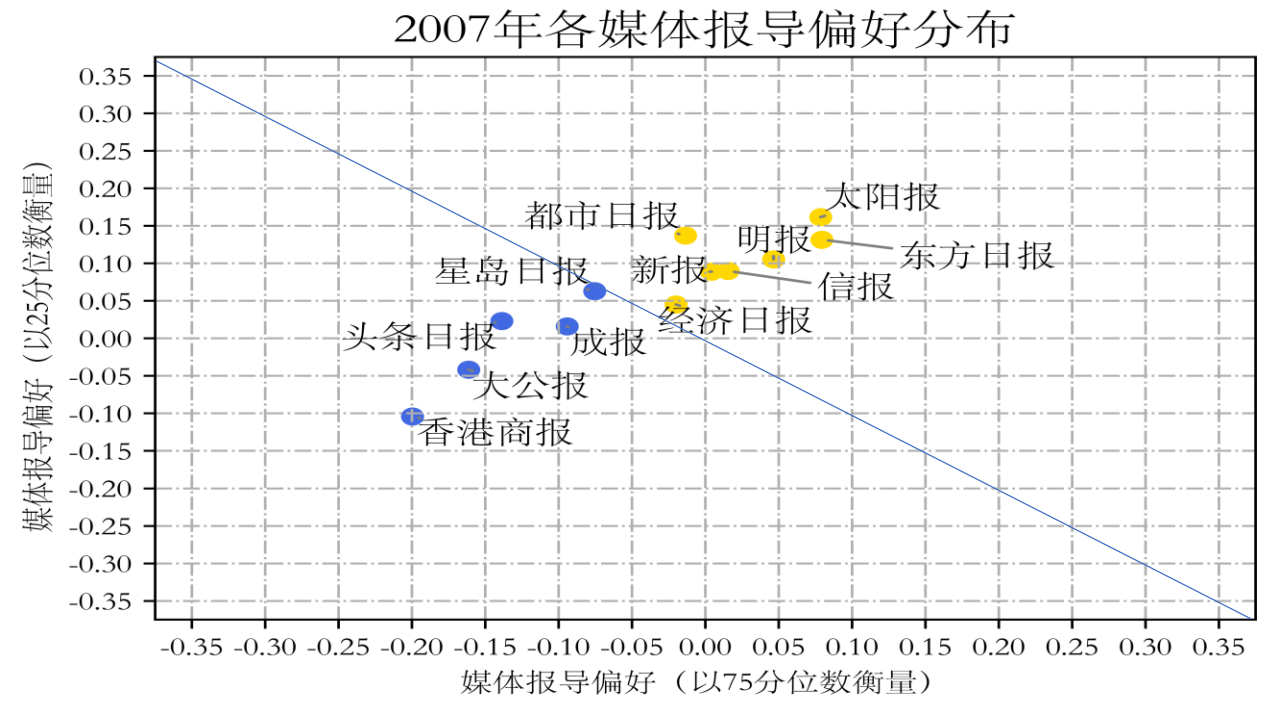
Consine Similarity

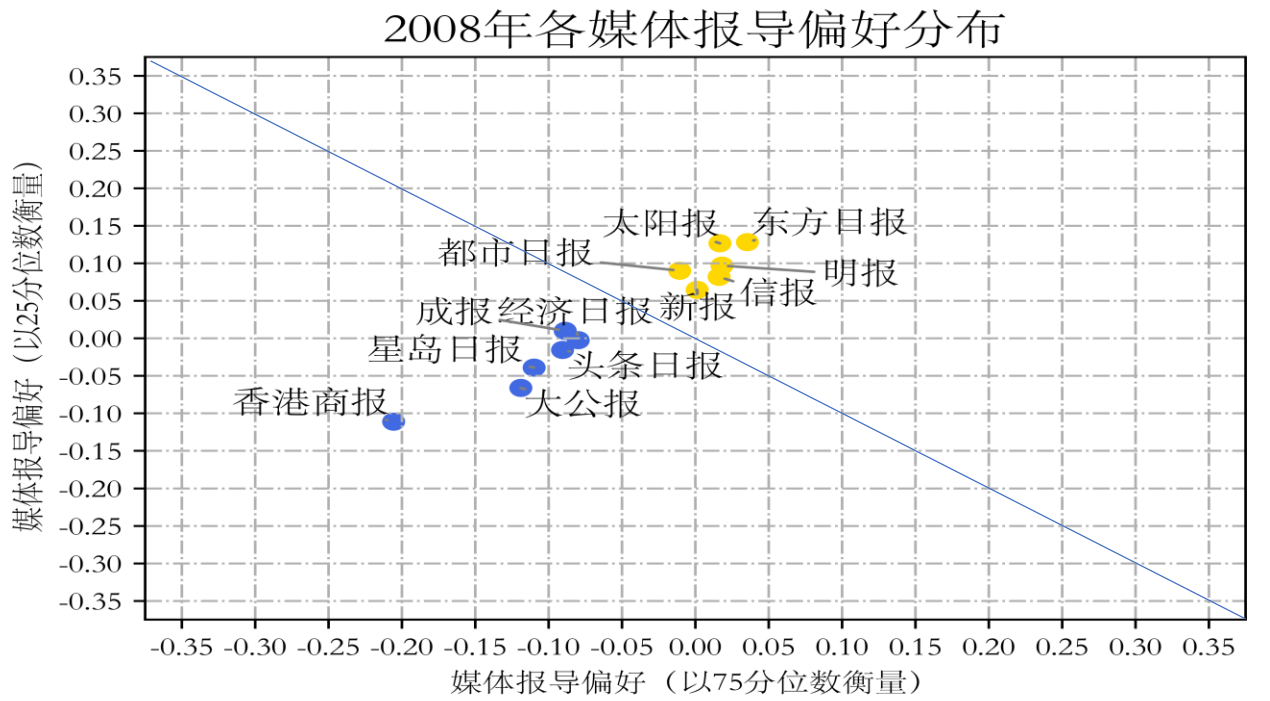
- Using *Wen Wei Pao* and *Apple Daily* as the baselines, respectively measure cosine similarities of other newspapers with them, on a 7-day basis.

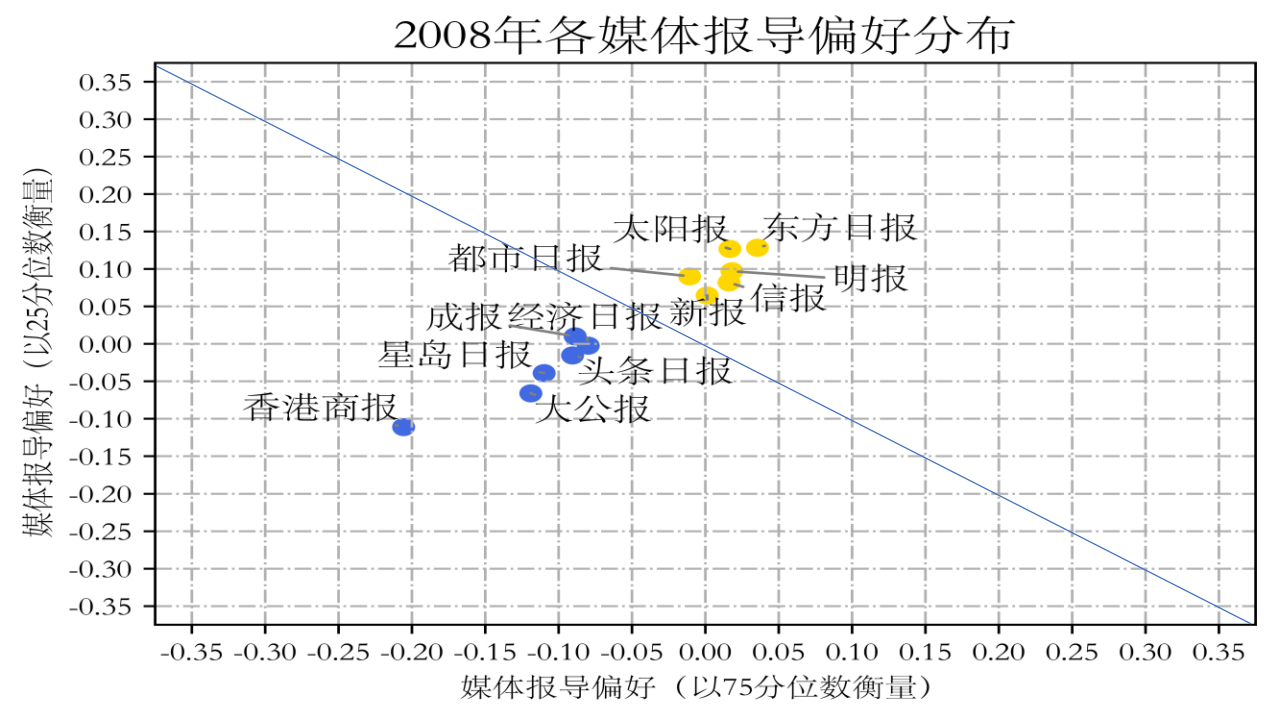

HONG KOGN IDENTITY
8.5
8.25
8
7.75
7.5
7.25
CHINESE IDENTITY
8.5
8
7.5
7
6.5
6
5.5
26/8-9/12/1997
3/6-4/6/1998
21/12-21/12/1998
8/2-8/6/1999
6/8-15/12/1999
1/2-8/6/2000
21/9-12/12/2000
22/3-5/6/2001
13/9-9/12/2001
12/3-5/6/2002
2/9-18/12/2002
1/3-18/6/2003
10/12-14/12/2003
7/6-11/6/2004
6/12-9/12/2004
6/6-8/6/2005
9/12-14/12/2005
13/6-15/6/2006
6/12-12/12/2006
8/6-12/6/2007
11/12-14/12/2007
11/6-13/6/2008
9/12-12/12/2008
8/6-13/6/2009
8/12-11/12/2009
9/6-13/6/2010
13/12-16/12/2010
17/6-22/6/2011
12/12-20/12/2011
13/6-20/6/2012
14/12-17/12/2012
10/6-13/6/2013
9/12-12/12/2013
6/6-12/6/2014
10/12-16/12/2014
15/6-18/6/2015
3/12-7/12/2015
10/6-16/6/2016
12/12-15/12/2016
13/6-15/6/2017
4/12-6/12/2017
4/6-7/6/2018
3/12-6/12/2018
17/6-20/6/2019
4/12-10/12/2019
調查日期 Survey Date


2002年各媒体报导偏好分布
太阳报
星岛日报
东方日报
媒体报导偏好（以25分位数衡量）
媒体报导偏好（以75分位数衡量）


2003年各媒体报导偏好分布
太阳报
东方日报
星岛日报
大公报
媒体报导偏好（以25分位数衡量）
媒体报导偏好（以75分位数衡量）


2007年各媒体报导偏好分布
太阳报
都市日报
明报
东方日报
星岛日报
新报
信报
经济日报
头条日报
成报
大公报
香港商报
媒体报导偏好（以25分位数衡量）
媒体报导偏好（以75分位数衡量）


2008年各媒体报导偏好分布
太阳报
东方日报
都市日报
明报
信报
成报
经济日报
新报
星岛日报
头条日报
大公报
香港商报
媒体报导偏好（以25分位数衡量）
媒体报导偏好（以75分位数衡量）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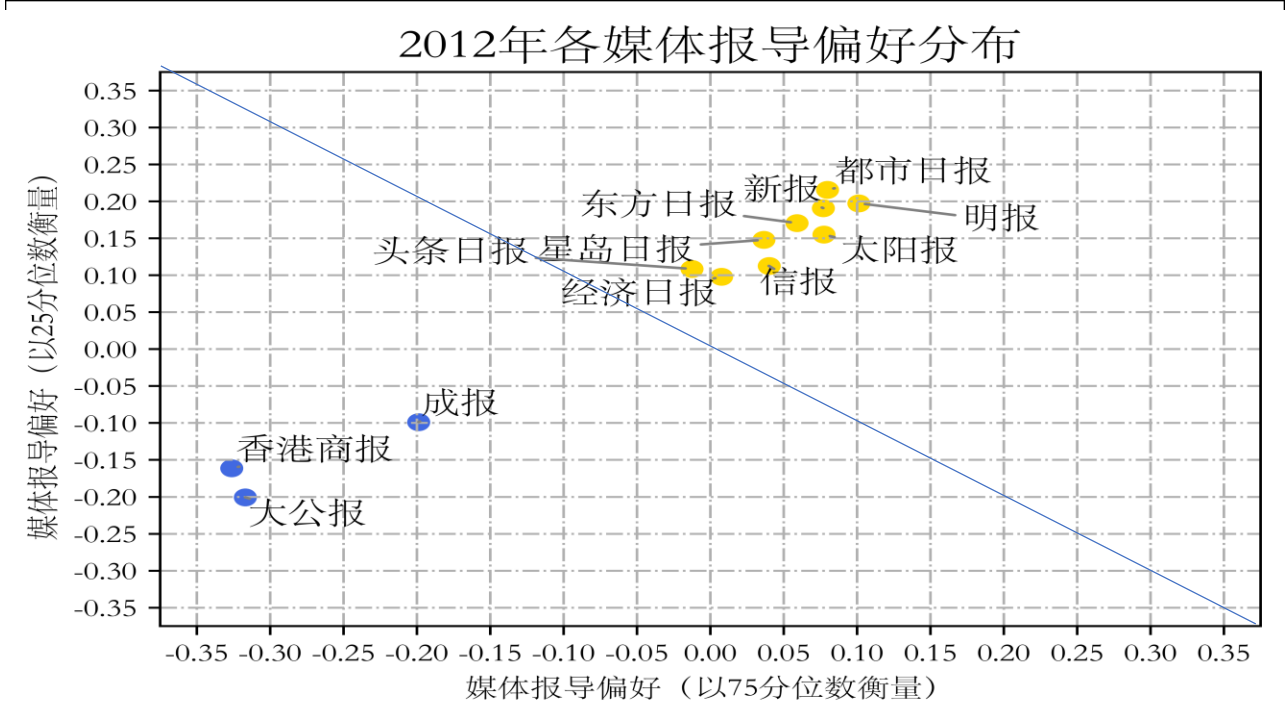
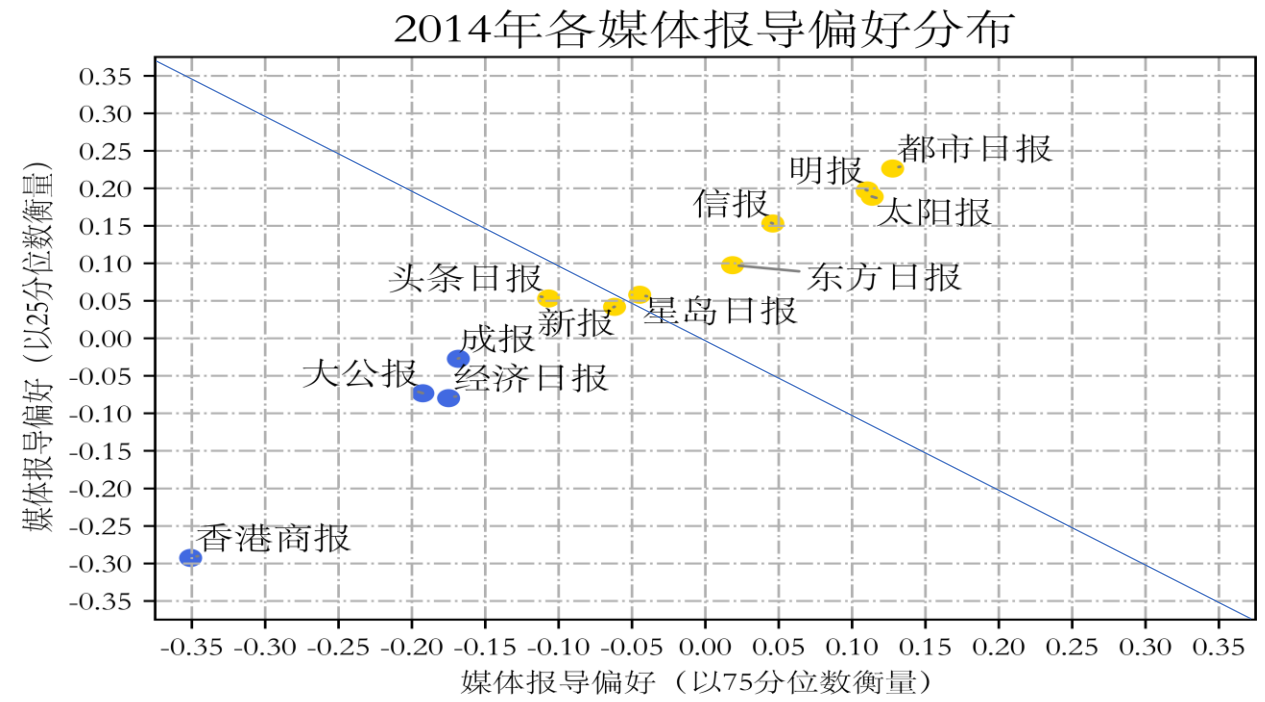
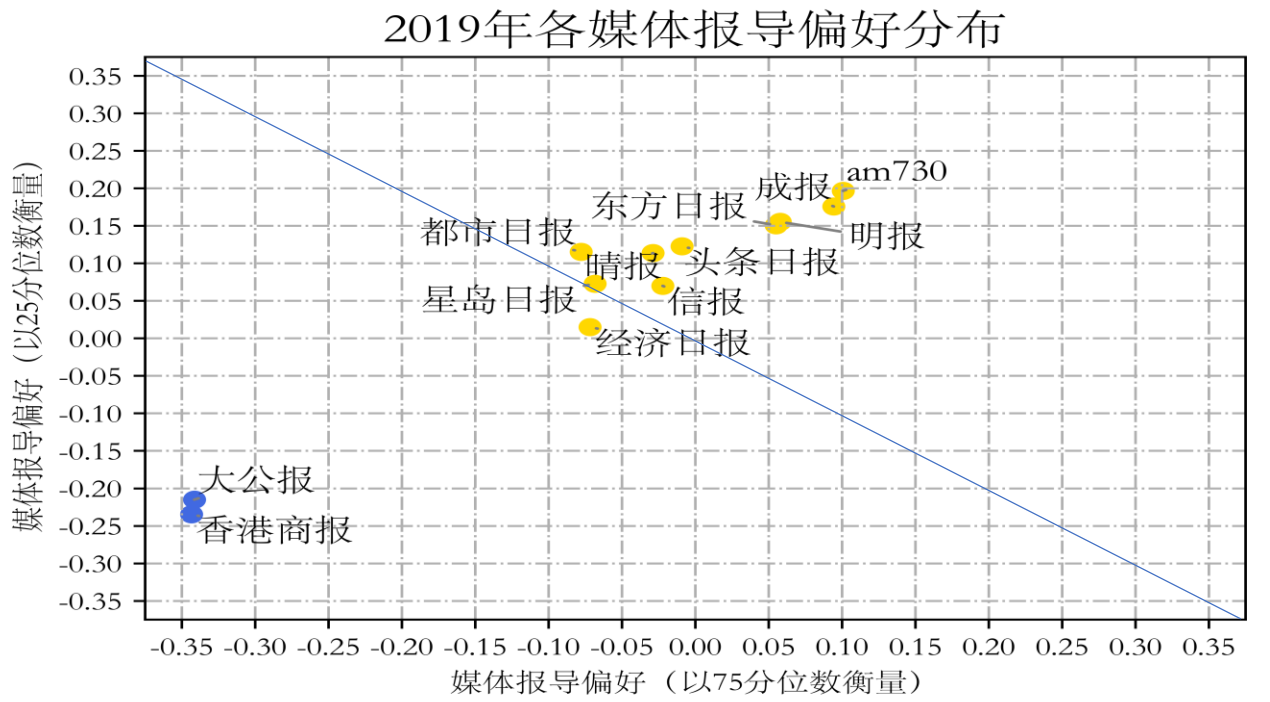
媒体报导偏好（以75分位数衡量）
太阳报
东方日报
都市日报
明报
信报
成报
经济日报
新报
星岛日报
头条日报
香港商报
大公报


2012年各媒体报导偏好分布
媒体报导偏好（以25分位数衡量）
媒体报导偏好（以75分位数衡量）
都市日报
新报
东方日报
明报
头条日报
星岛日报
太阳报
经济日报
信报
成报
香港商报
大公报


2014年各媒体报导偏好分布
媒体报导偏好（以25分位数衡量）
媒体报导偏好（以75分位数衡量）
都市日报
明报
信报
太阳报
东方日报
头条日报
新报
星岛日报
成报
大公报
经济日报
香港商报


2019年各媒体报导偏好分布
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媒体报导偏好（以75分位数衡量）
成报
am730
东方日报
明报
都市日报
晴报
头条日报
星岛日报
信报
经济日报
大公报
香港商报

Further Studies

- Relationship between consine similarity and reporting topics of relevant newspapers
- External events and media slant variation
- Relationship between media slant variation and other factors, e.g., Hongkongers' ethnic identity, political trust, government safisfaction etc.