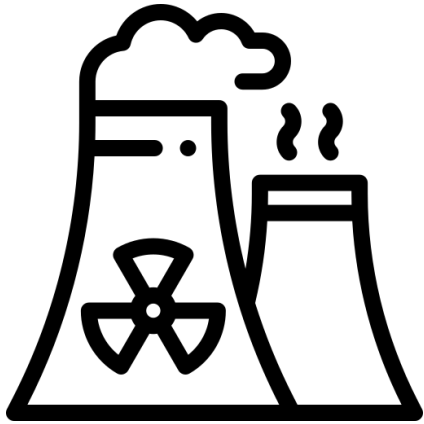


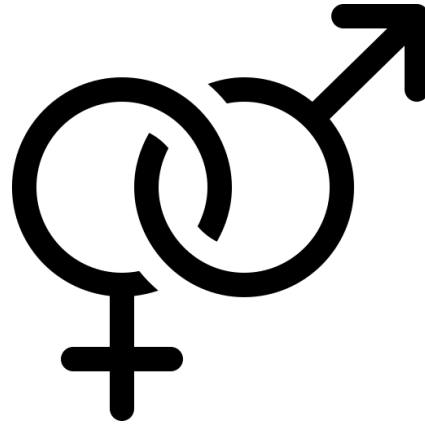
Issue-oriented homophily in Taiwan Facebook data

Qi-Wen Ding

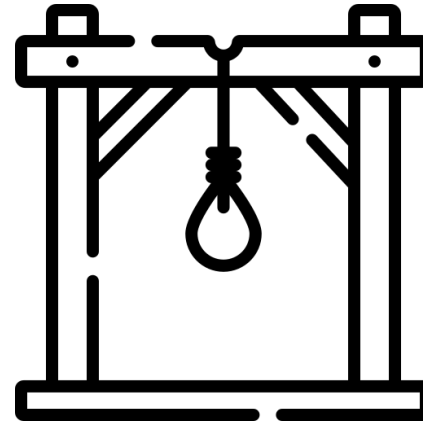
Online visualization: https://rayrdemo.shinyapps.io/DSRshiny_upload/



Nuclear power



Same-sex
marriage



Death penalty



Taiwan
independence

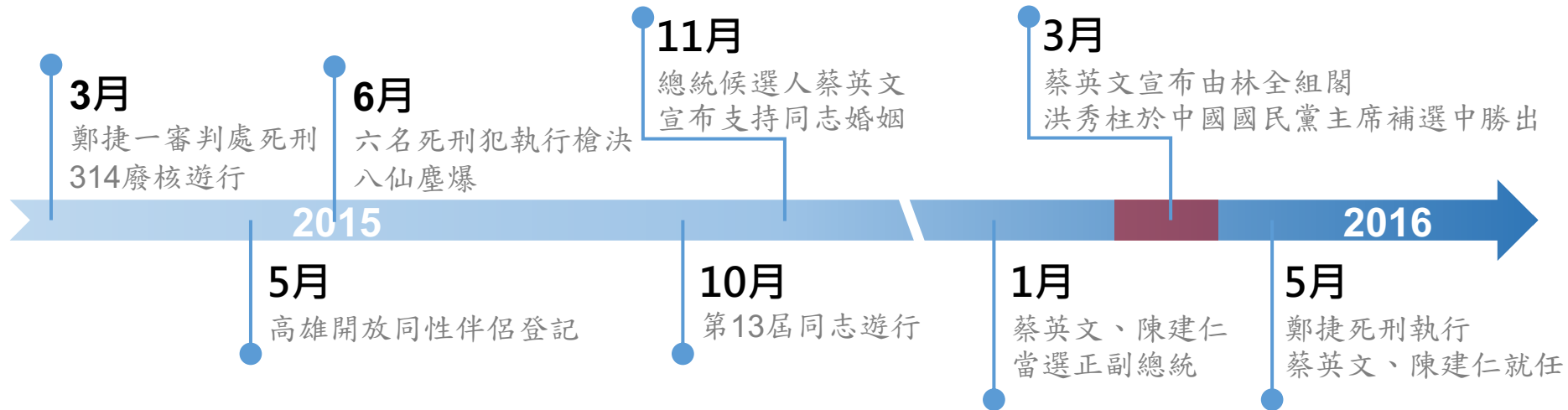
Q1: Does the issue-based homophily exist?

Q2: Is there any relationship between clusters?

Q3: Other hidden characteristics for these clusters

Data

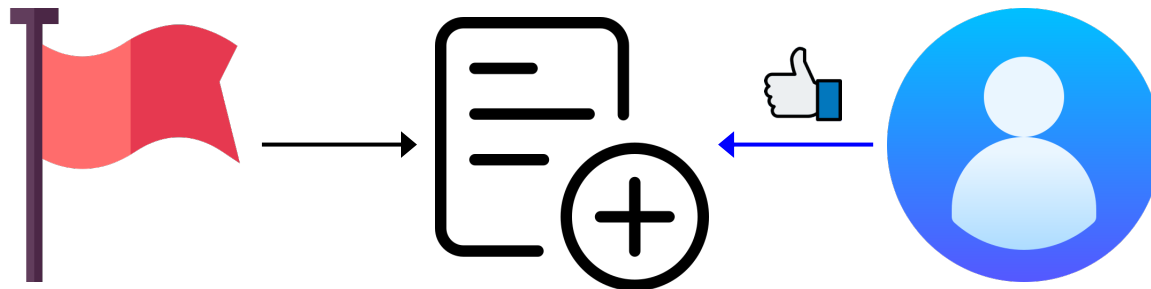
- All public data from Facebook fanpages in Taiwan (2016/3/01-2016/3/31)
- 19 million “Like” and 340 thousand users



Fanpage ID

Post ID

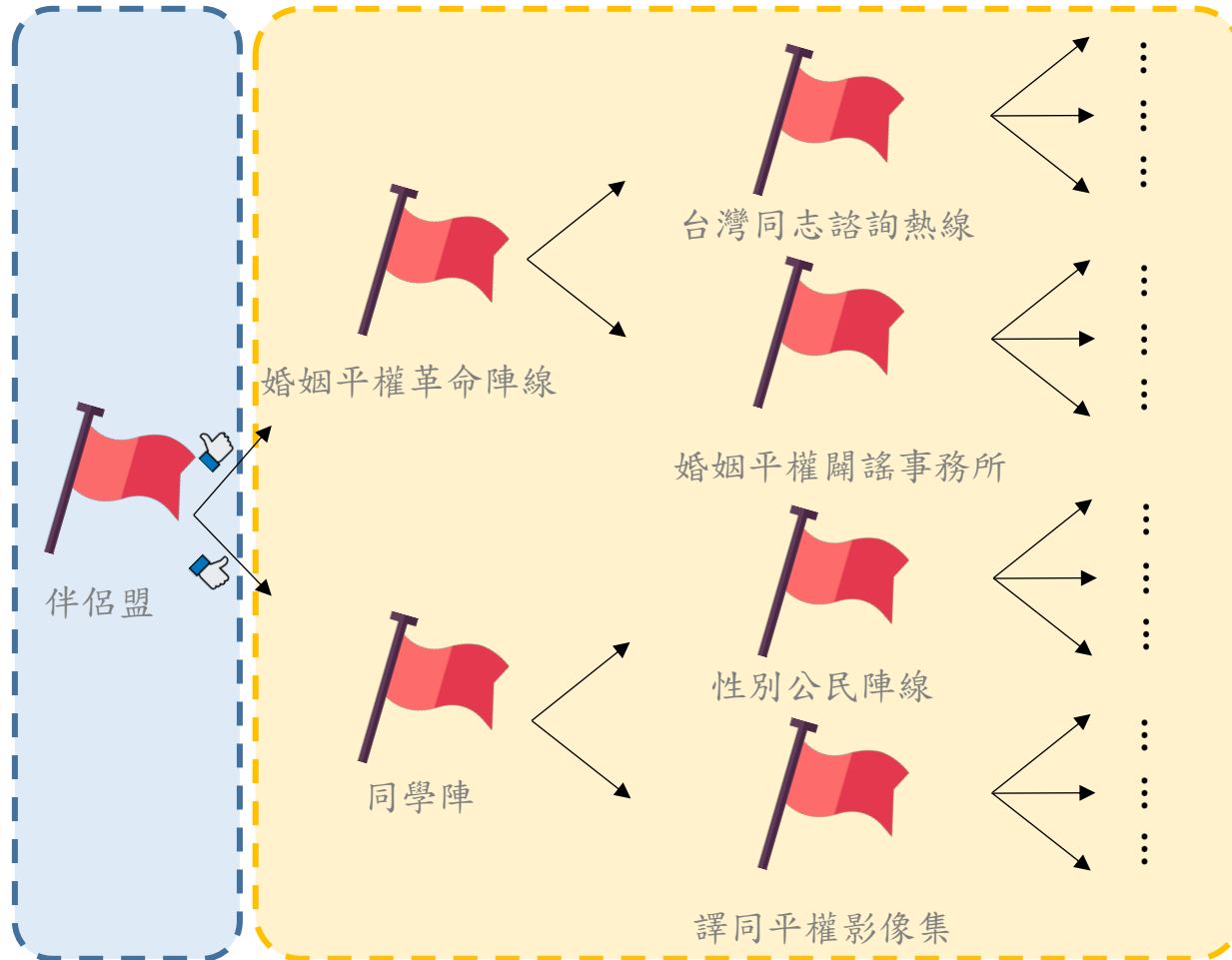
User ID



Step 1: Web crawling

Find fanpages supporting/opposing these issues **manually** and **automatically**

Support
same-sex
marriage:



Within 3 levels or less than 1,000 fanpages

Step 2: Construct user's opinion scores

Number of likes for the posts

UserID	Nuclear	Anti-nuclear	Same-sex	Anti-same-sex	Death	Anti-death	Taiwan indep.	Anti-indep.
01489	1	15	122	0	0	3	0	5



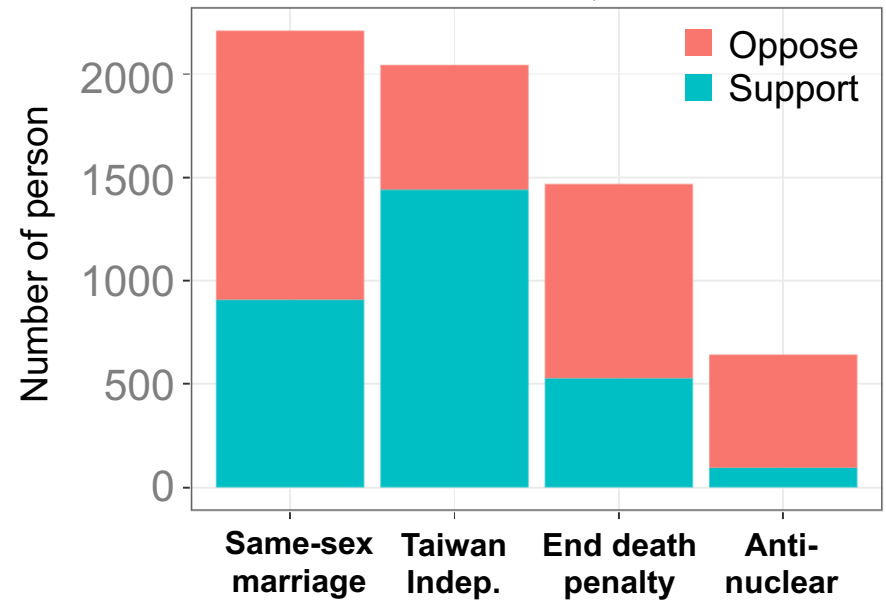
Standardized by each issue as the final opinion score

UserID	Nuclear	Anti-nuclear	Same-sex	Anti-same-sex	Death	Anti-death	Indep.	Anti-indep.
01489	-0.153	0.451	1.775	-0.234	-0.423	0.421	0.006	0.366

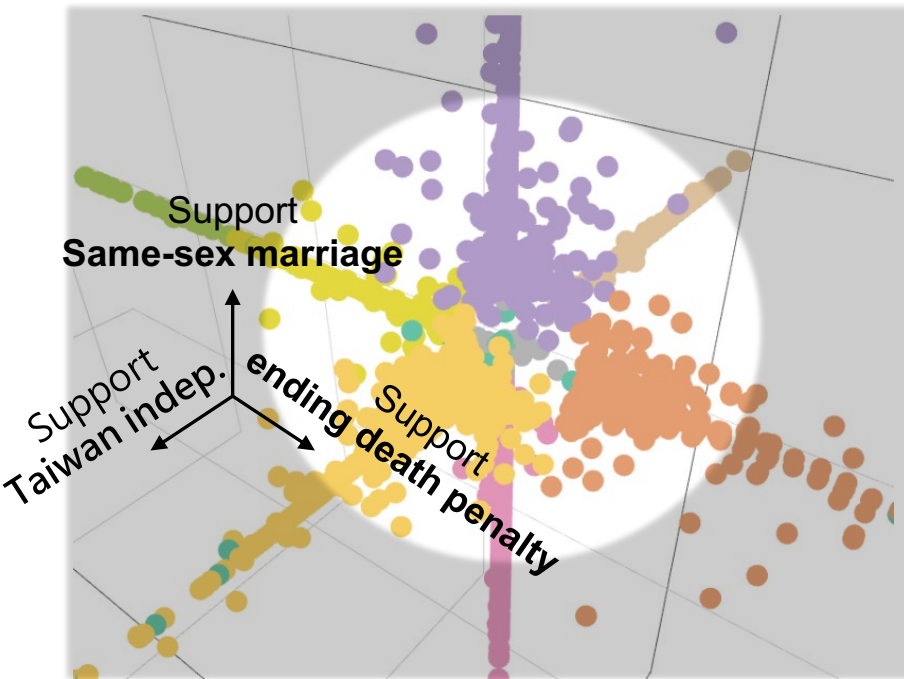
Step 3: *k*-means clustering

98% users are indifferent (vs. 6,364 users with active opinions)

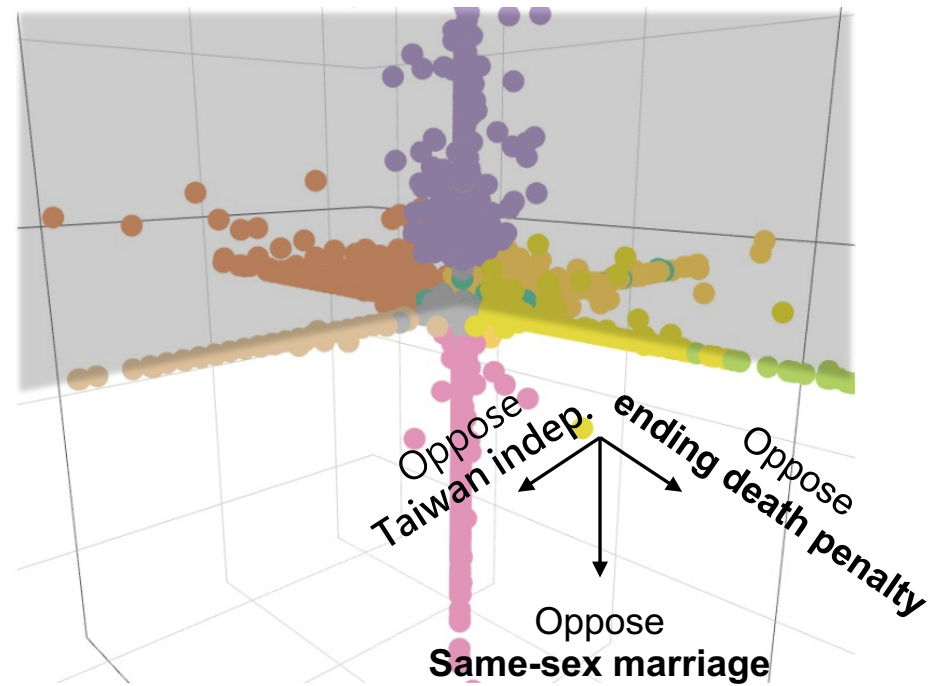
Cluster	Counts	% (no cluster 2)
1. Anti-nuclear	94	1%
2. Indifferent	336432	-
3. Same-sex	907	14%
4. Homophobia	1303	20%
5. Death penalty (more extreme)	30	< 1%
6. Death penalty	911	14%
7. Taiwan indep.	1440	23%
8. Reunification	604	9%
9. Nuclear	548	9%
10. End death penalty	527	8%



Relationships between clusters



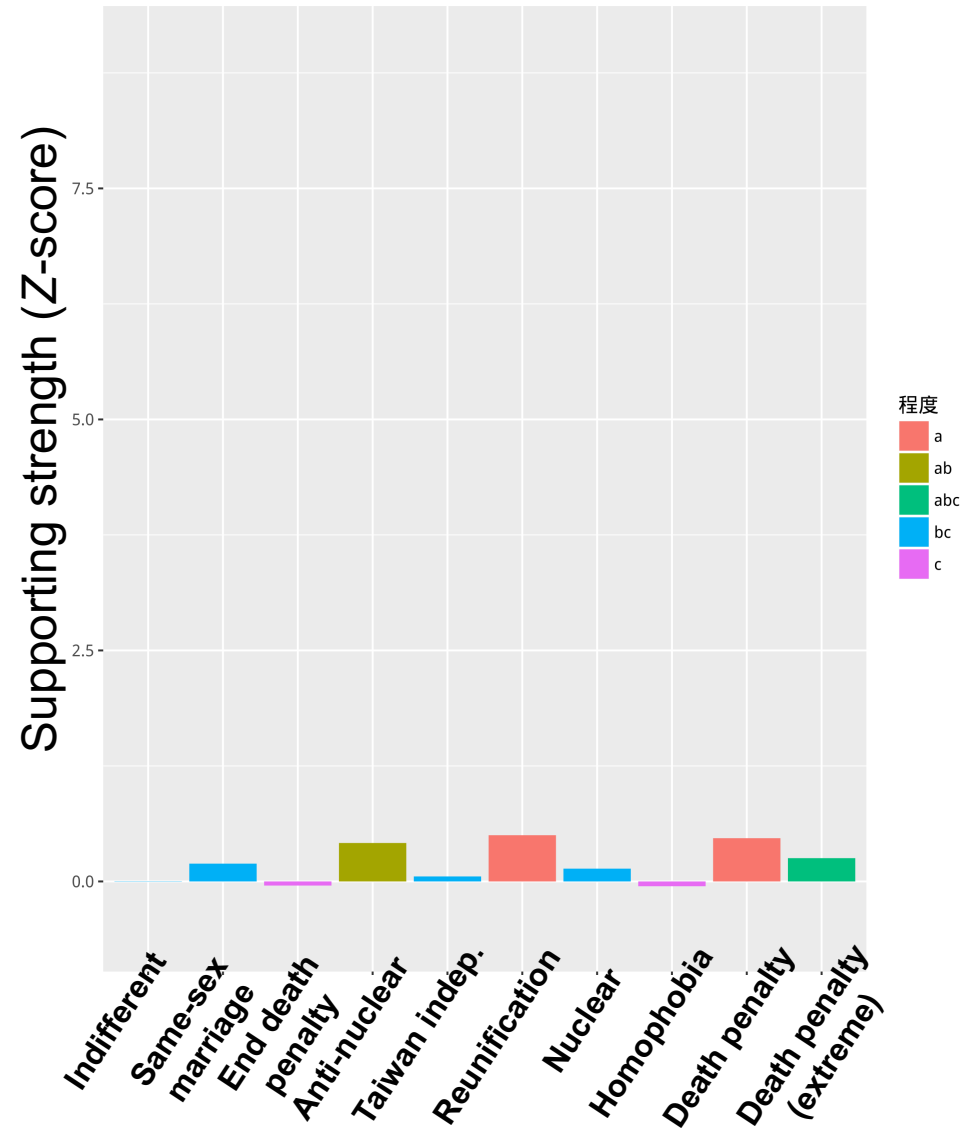
Reflecting the common values from young generation?



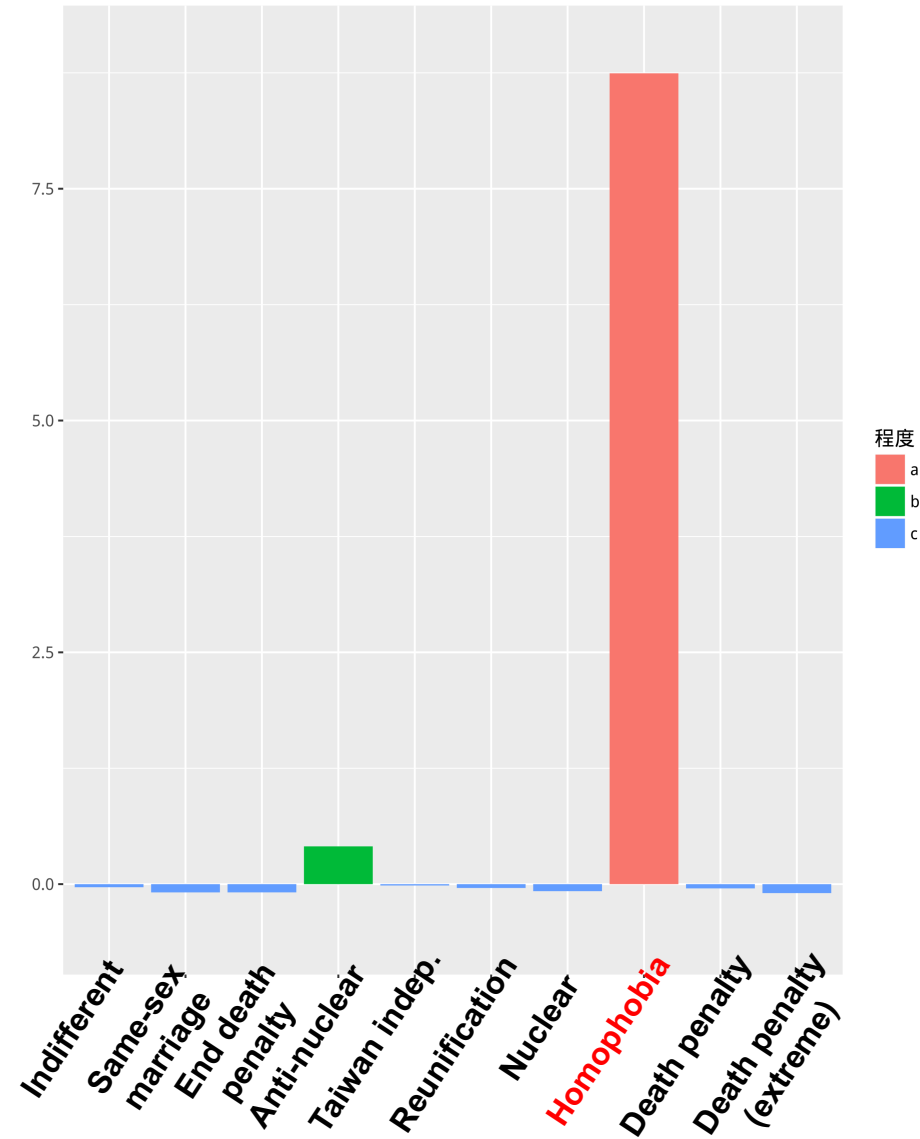
Three independent clusters which don't form a higher-order homophily

Clusters by religion

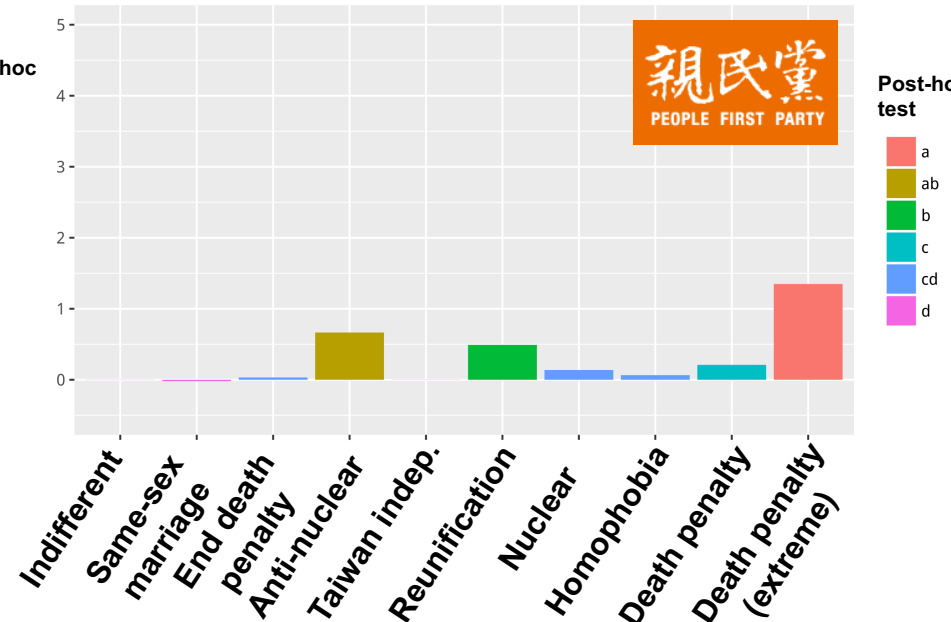
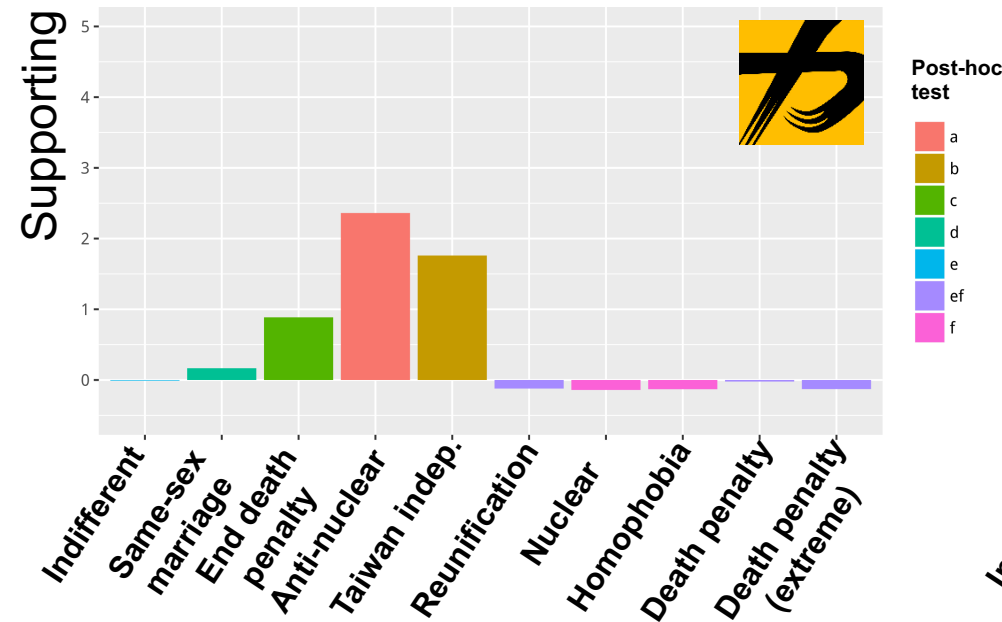
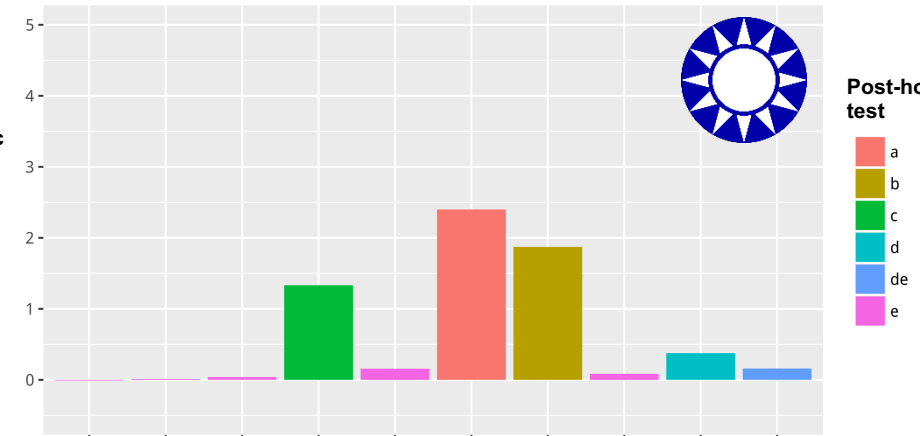
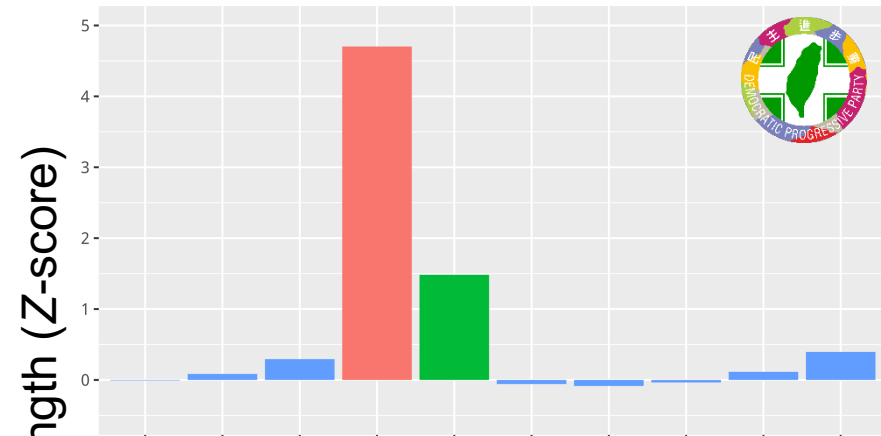
Buddhism



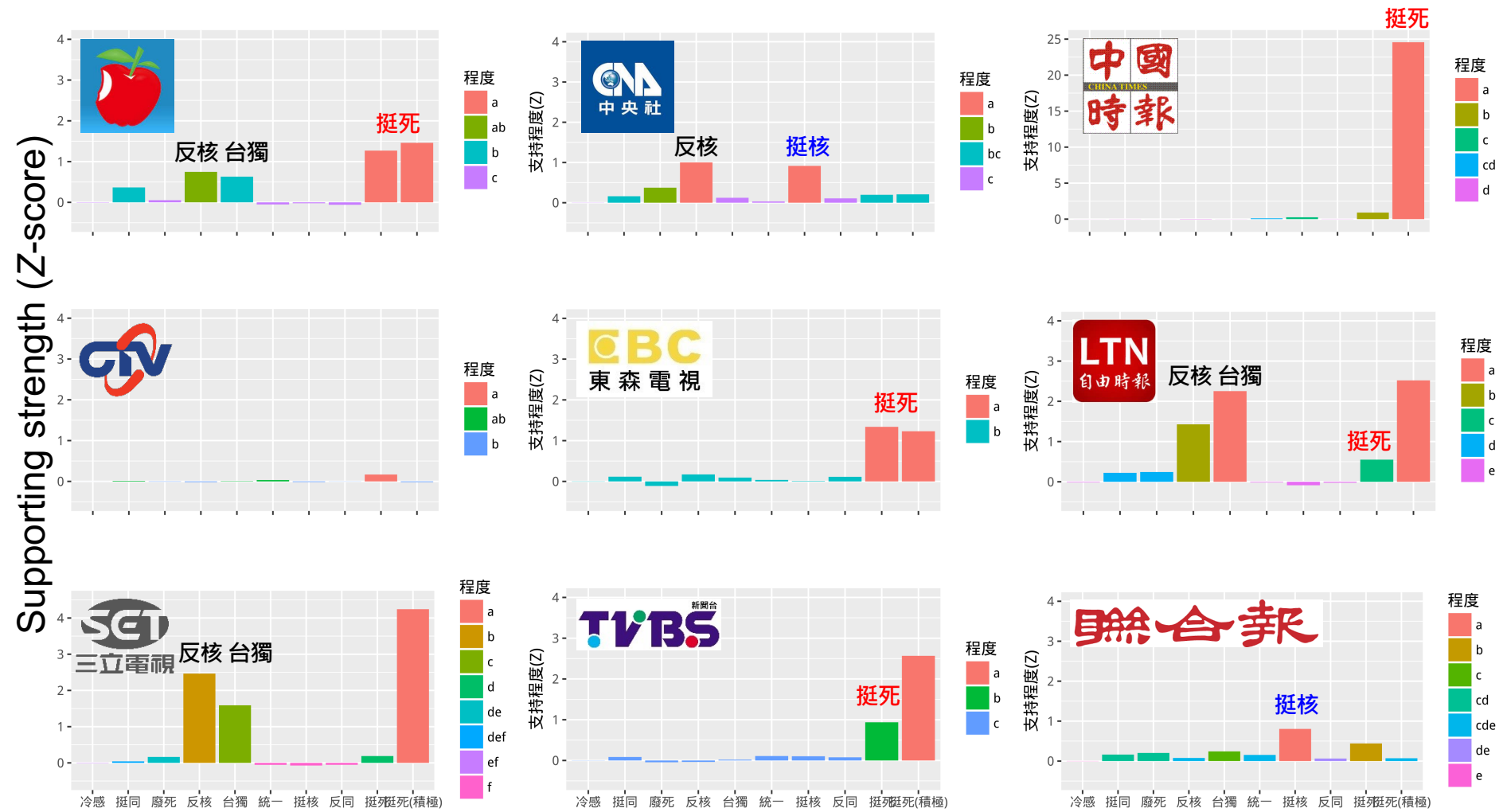
Christianity



Clusters by political parties



Clusters by media



Top 10 fanpages for each cluster

Same-sex marriage

- 1 QueerWatch 酷新聞
- 2 ETtoday新聞雲
- 3 蘋果日報
- 4 社團法人台灣伴侶權益推動聯盟
- 5 台灣同志諮詢熱線
- 6 東森新聞
- 7 同學陣（力挺同性婚姻學生聯合陣線）
- 8 Age Of Queer 酷時代
- 9 Yahoo!奇摩新聞
- 10 麥當勞

Homophobia

- 1 基督教今日報
- 2 基督教論壇報
- 3 水深之處（水深之<U+5904>）
- 4 GOOD TV 好消息電視台
- 5 東森新聞
- 6 新生命小組教會
- 7 佳音Love聯播網
- 8 口袋聖經協會 - 繁體中文版
- 9 BBN 聖經廣播網
- 10 Yahoo!奇摩新聞

- Most Taiwanese Facebook users haven't expressed a clear stance on these issues
- Those who support the abolition of the death penalty are also more likely to support Taiwan independence or same-sex marriage
 - but there is no similar phenomenon among opponents.
- Different homophiles use different media.