Analysis of Overlap Communities

	Ni	Pi
TOI	11026375	0.7747
HT	6299717	0.4426
HINDU	4842235	0.3402
IE	2742133	0.1926
NIE	347149	0.0244
TG	51885	0.0036
DH	24897	0.0017
All	14233874	1.0000

The following table shows Ni (no. of followers of a newspaper) and Pi (the probability of a random newspaper follower being in following newspaper i.

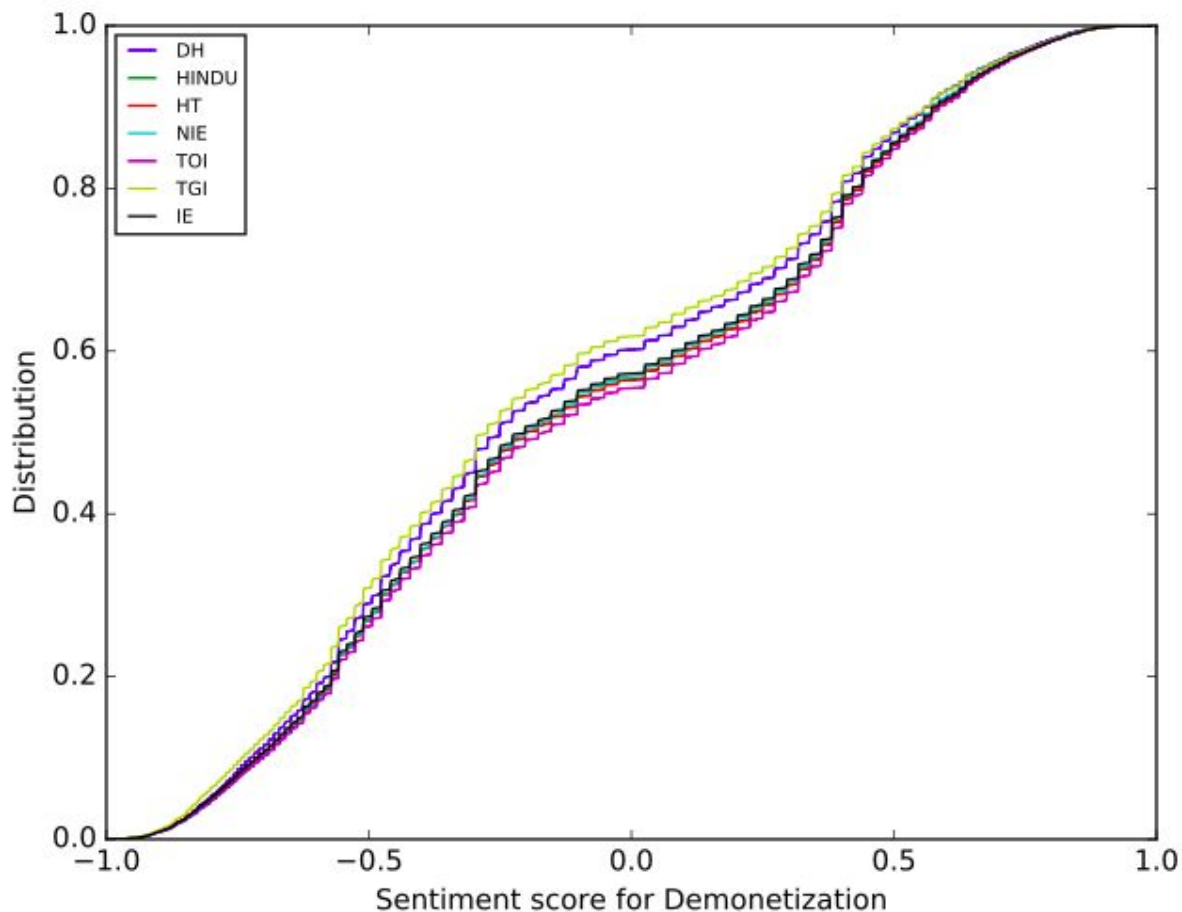|		Newspaper J						
		TOI	HT	Hindu	IE	NIE	TGI	DH
	TOI	1.0000	0.4116	0.2962	0.1842	0.0162	0.0029	0.0012
	HT	0.7204	1.0000	0.4583	0.3032	0.0260	0.0047	0.0018
	HINDU	0.6744	0.5962	1.0000	0.3872	0.0387	0.0112	0.0026
	IE	0.7406	0.6966	0.6837	1.0000	0.0590	0.0112	0.0041
	NIE	0.5130	0.4724	0.5393	0.4659	1.0000	0.0301	0.0602
	TGI	0.6136	0.5710	0.6111	0.5897	0.2016	1.0000	0.0602
Newspaper I	DH	0.5472	0.4603	0.5057	0.4539	0.2850	0.1255	1.0000

Table for Pij values - fraction of users following newspaper i who also follow newspaper j. Can be interpreted as probability of newspaper follower following newspaper j given he/she follows newspaper i.

Pij = (No. of users following both i and j)/(Users following i)

| Pij/Pj	TOI	HT	Hindu	IE	NIE	TGI	DH
TOI	1.2909	0.9299	0.8706	0.9560	0.6622	0.7921	0.7064
HT	0.9299	2.2594	1.3471	1.5738	1.0674	1.2902	1.0401
HINDU	0.8706	1.3471	2.9395	2.0096	1.5853	1.7962	1.4866
IE	0.9560	1.5738	2.0096	5.1908	2.4185	3.0613	2.3562
NIE	0.6622	1.0674	1.5853	2.4185	41.0022	8.2660	11.6846
TGI	0.7921	1.2902	1.7962	3.0613	8.2660	274.3350	34.4337
DH	0.7064	1.0401	1.4866	2.3562	11.6846	34.4337	571.7104

Table showing Pij/Pj values

From the previous table we see that Pij values for any i is maximum for j = TOI. The Pij values follow the order of popularity(size of follower-base)

CDF for tweet sentiment for newspapers followers (irrespective of the no. newspapers they follow).
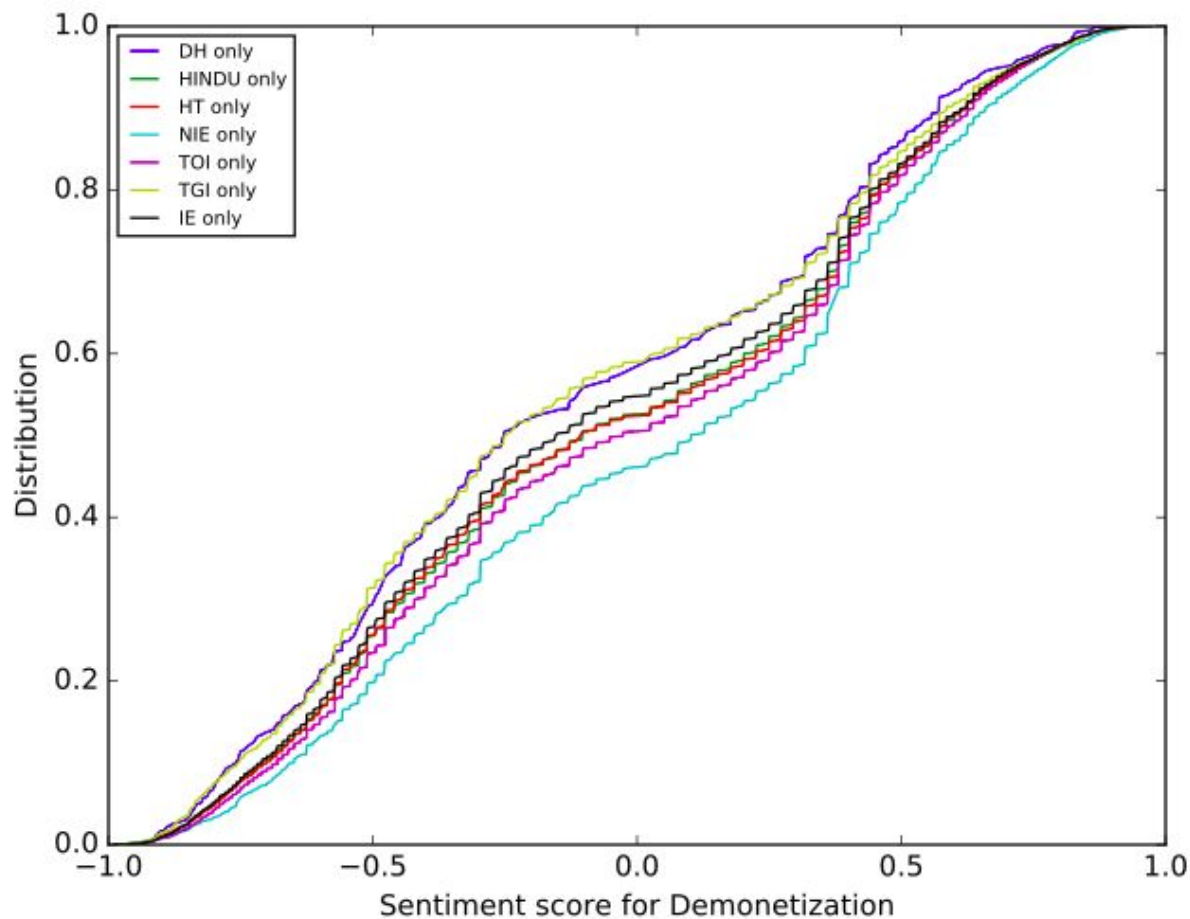
CDF for tweet sentiment for newspapers followers following only one newspaper. We see that these CDF's aren't as close as in the previous plot.

	Ni	Pi
All	12220214	1.00
BJP	10371874	0.85
INC	4765818	0.39

Pi values for BJP and
Congress. All corresponds to
the newspaper followers who
follow any of the political party.

	BJP	INC
TOI	23.9	10.0
HT	26.9	14.0
HINDU	29.6	16.2
IE	34.7	20.1
NIE	32.7	21.5
TGI	41.9	42.5
DH	39.9	33.7

P_newspaper_BJP and
P_newspaper_INC values in
percentage.

	BJP	INC
TOI	0.50	0.41
HT	0.56	0.58
HINDU	0.61	0.67
IE	0.72	0.84
NIE	0.68	0.89
TGI	0.87	1.77
DH	0.83	1.40

Table showing
P_newspaper_BJP/P_BJP and
P_newspaper_INC /P_INC

Visualization of P_newspaper_BJP and P_newspaper_INC values

P_newspaper_BJP and P_newspaper_INC
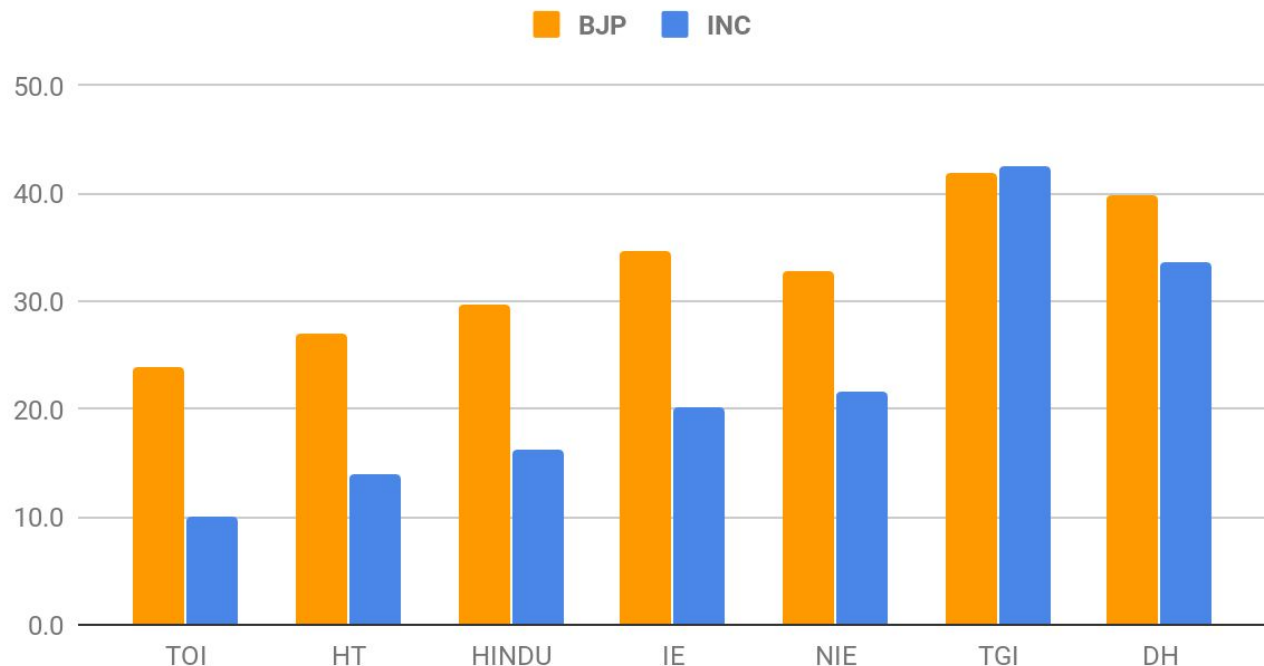
We observe that probability of a user following BJP and INC given the newspaper increases as the no. followers of the newspaper decreases.