Report for Week 4 – 20th April to 26th April

Tasks Performed :

- Updated the new data as per Professor Andrei Marian code from the Gitlab

- As per requested data from for the transition of user from the current stance to next stance according to the periods wise in Table 1 with Current stances are indicated as “curr” and Next stances are indicated as “next”,this data is collected from the FS4 features set which is combination of FS4= FS1+FS2+FS3 (all the new feature-sets as proposed)

Table1:User Transition per timeframe

T1	0(curr)	1(curr)	2(curr)
0(next)	31	14	23
1(next)	8	41	16
2(next)	7	27	23

T8	0(curr)	1(curr)	2(curr)
0(next)	147	56	55
1(next)	54	63	48
2(next)	66	54	59

T2	0(curr)	1(curr)	2(curr)
0(next)	37	19	11
1(next)	7	20	13
2(next)	25	21	14

T9	0(curr)	1(curr)	2(curr)
0(next)	92	31	23
1(next)	40	31	19
2(next)	81	41	62

T3	0(curr)	1(curr)	2(curr)
0(next)	24	7	5
1(next)	10	19	4
2(next)	18	10	12

T10	0(curr)	1(curr)	2(curr)
0(next)	94	45	86
1(next)	52	49	76
2(next)	23	19	46

T4	0(curr)	1(curr)	2(curr)
0(next)	20	14	12
1(next)	7	10	7
2(next)	19	13	10

T11	0(curr)	1(curr)	2(curr)
0(next)	292	128	118
1(next)	119	164	123
2(next)	99	86	150

T5	0(curr)	1(curr)	2(curr)
0(next)	38	15	19
1(next)	12	11	12
2(next)	10	8	20

T12	0(curr)	1(curr)	2(curr)
0(next)	179	73	50
1(next)	145	152	56
2(next)	151	151	158

T6	0(curr)	1(curr)	2(curr)
0(next)	76	19	20
1(next)	21	26	23
2(next)	17	7	32

T13	0(curr)	1(curr)	2(curr)
0(next)	130	74	96
1(next)	59	132	109
2(next)	75	95	155

T7	0(curr)	1(curr)	2(curr)
0(next)	176	47	37
1(next)	65	85	33
2(next)	67	56	56

T14	0(curr)	1(curr)	2(curr)
0(next)	143	64	72
1(next)	68	129	80
2(next)	106	99	161

- I have read the paper which was proposed by Professor Andrei, from the Proceedings of the National Academy of Sciences of United States of America titled as “The spreading of misinformation online”

- As we already know that this paper is not related to our work, moreover this paper is based on the dataset which is obtained from facebook Api .which contains pages of science related new, conspiracy related news and trolls
- In this paper , author refers about generation of tree , as the main part of the work is by considering sharing tree(which depends on the sharing of the post)
- First share of the post is considered as the root of the tree.
- Size of the sharing tree is referred as the number of shares in the tree and height of the tree is considered as the maximum path length from the root.
- Author referred polarization as polarization $\sigma = 2\varrho - 1$ where $0 \leq \varrho \leq 1$ is the fraction of "likes" a user puts on conspiracy-related content, and hence $-1 \leq \sigma \leq 1$.
- Author also referred as the edge homogeneity for any edge eij between nodes i and j, as $\sigma ij = \sigma i \sigma j$, with $-1 \leq \sigma ij \leq 1$.
- Edge homogeneity reflects the similarity level between the polarization of the two sharing nodes. A link in the sharing tree is homogenous if its edge homogeneity is positive.
- Homogenous clusters are derived by the sharing patterns and its resulted that all the majority of links between consecutive sharing users is homogenous.

- Considering our work is based on the comments on the posts and sub-post which is goes on from one node (post) to the other leaves(comments).
- We can implement this ideology of the work from the referred paper above , here where we need to concentrate on single stance whether its is against Brexit , pro Brexit.
- But the problem here is our user stances changes according to the time period , where as the information which is can go either way of Brexit as pro Brexit or against Brexit.
- User tends to move their stances In our work , moreover paper which author refer to the homogeneity is always on the same group of people who believes and shares the information according to it
- This could be challenging to incorporate in our work.