

# Digital Empowerment Foundation

Linking instances of hate speech online

August 7, 2020

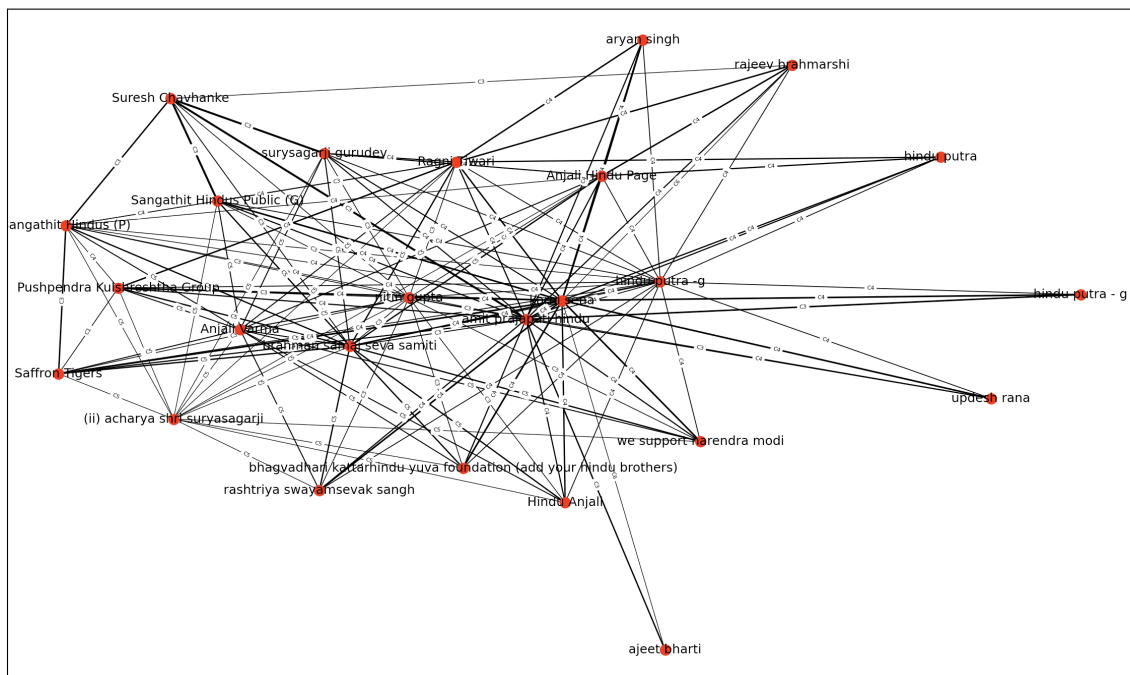
## 1 Graph Explanations

The overall purpose of the script `social-network.py` is to analyze the content type of the posts from every page that was studied and create links between pages that had overlapping content type. In order to do this, I used `networkx`, a python package for creating graphs. Theoretically, graphs simply consist of nodes and edges connecting nodes. In this case, the nodes are the pages studied and the edges are between pages which share content type. For example, `rashtriya swayamsevak sangh` and `bhagvadhari kattarhindu yuva foundation` both had 331 instances of content type C3, so an edge exists between them and is weighted based on the number of instances of C3. Since these two groups happen to have the largest overlap of content type C3, the edge between them has the thickest line.

Essentially, the function `MakeSocialNetwork` within `social-network.py` loops through all three of the excel sheets (`Sana`, `Tarun`, and `Shambhavi`) and creates nodes for all of the pages studied. The function reads each row of every Excel file, and checks if a node for that page has been created. If the node doesn't already exist, it creates one for that page. If the node does exist, it then checks if that type of post has been seen already on that page. If not, the program adds that type of post with a count of 1. If that type of post has been seen, it adds 1 to the count. By the end of the function, the number of occurrences of each type of post for every page is saved in the file `post-count.txt`. Then, the function `MakeEdges` loops through these occurrences, and if there is overlap between two pages for a given post type, creates an edge between them for that type of post. Finally, there are graphs created for the following:

- All of the connections across all post type
- All of the connections between groups for Strategies
- All of the connections between groups for Content
- All of the connections between groups for Calls to Action





## 1.2 Content

This graph only shows overlap between groups that are posts in the 'content' category. In fact, within the 25 largest overlaps, 24 out of 25 are either C3, C4, or C5 (video, pictures, and text post). As we can see from above, content type C3 and C4 were the two most prevalent types of posts, and C5 was the fourth most. The file `overlap.txt` lists the sorted list of overlaps and the pages that had the overlap, starting with the largest amount of overlap.

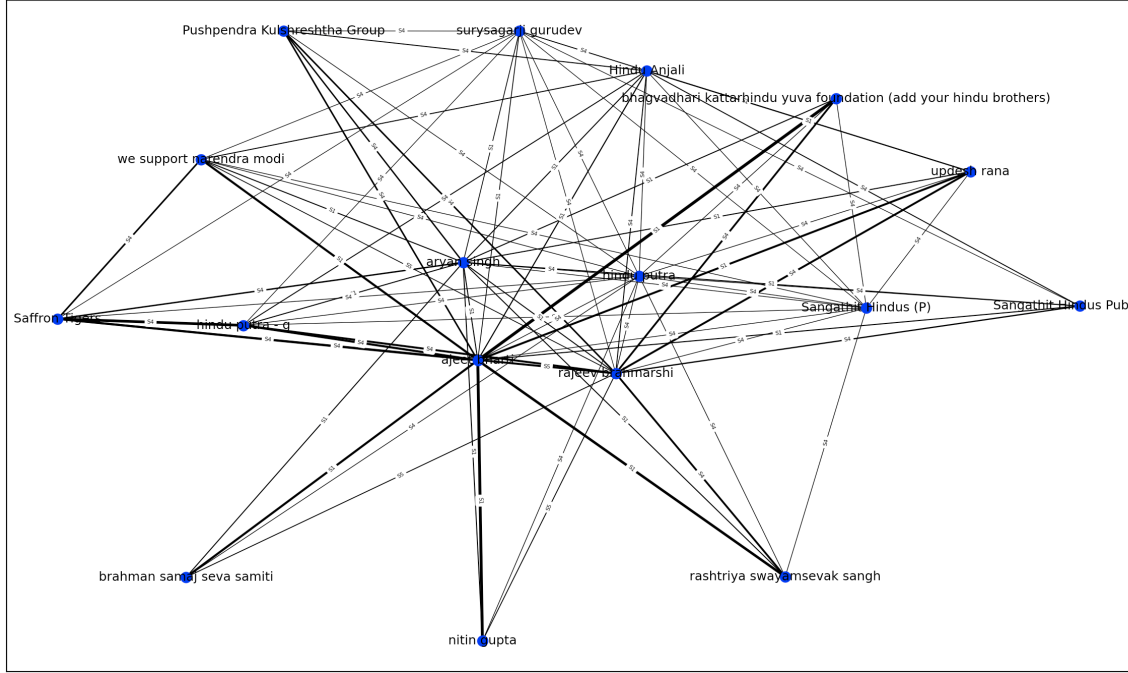


Figure 3: Strategies

### 1.3 Strategies

Strategies 1,2, and 4 were the most prevalent overall, corresponding to dehumanisation, disinformation, and glorification. The groups that had the largest number of these types of posts are:

1. Rashtriya Swayamsevak Sangh and Bhagvadhari Kattarhindu Yuva foundation– S2 with overlap: 180
2. we support narendra modi and bhagvadhari kattarhindu yuva foundation (add your hindu brothers)– S2 with overlap: 168
3. hindu putra and bhagvadhari kattarhindu yuva foundation (add your hindu brothers)– S1 with overlap: 164
4. hindu putra and brahman samaj seva samiti – S4 with overlap: 146
5. hindu putra and ajeet bharti– S1 with overlap: 144
6. ajeet bharti and bhagvadhari kattarhindu yuva foundation (add your hindu brothers)– S1 with overlap: 144

Again, we see Hindu putra, Bhagvadhari Kattarhindu Yuva foundation, and Rashtriya Swayamsevak Sangh all as being especially influential pages.

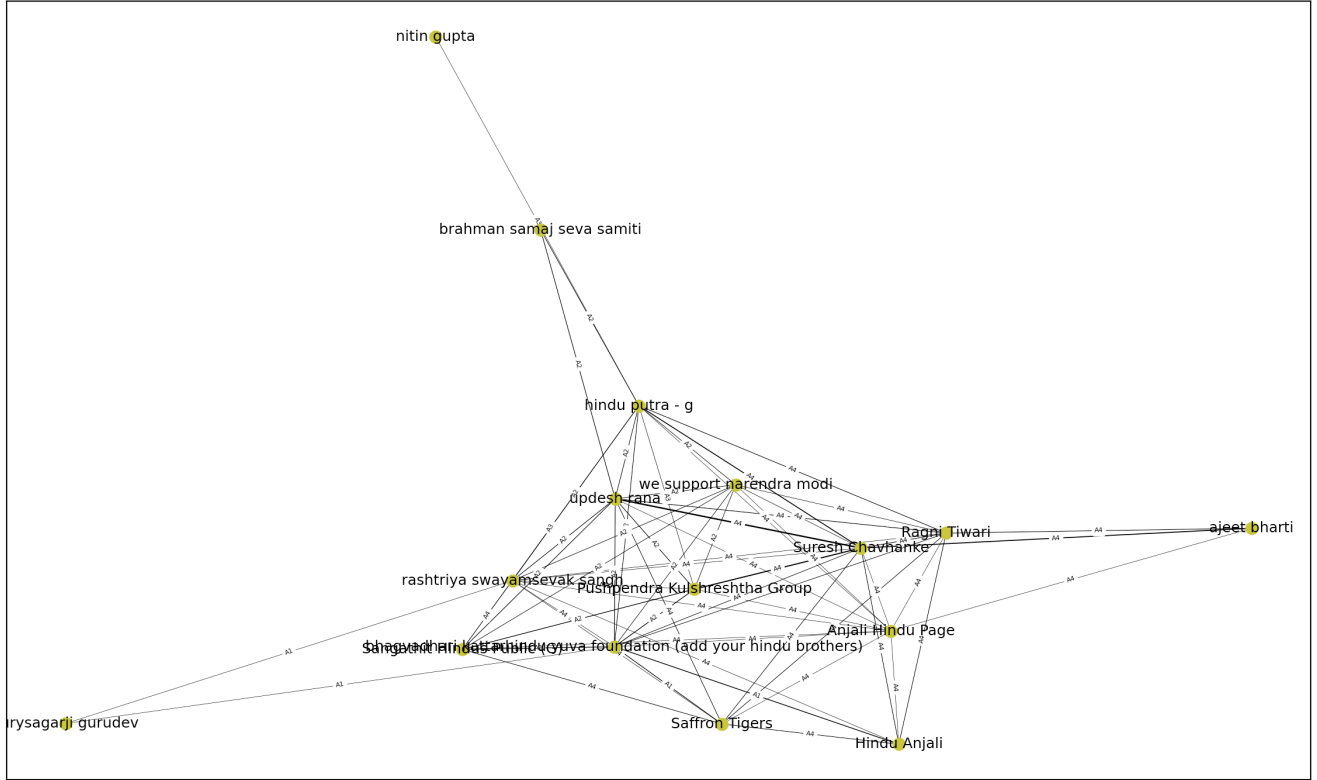


Figure 4: Actions

## 1.4 Actions

Finally, we have calls to action, which were overall the least prevalent type of post and also perhaps the most difficult to identify—what determines a call to action? There were 2897 instances of A1 (Inciting any form of violent action against a community/individual based on ethnic identity/religious belief- taking matters into their own hands) and 2437 instances of A4 (Demanding violent/extreme state action against a community). The pages that had the largest amount of overlap for calls to action are:

1. Sangathit Hindus Public (G) and Suresh Chavhanke – A4 with overlap: 64
2. Updesb Rana and Sangathit Hindus Public (G)– A4 with overlap: 60
3. Updesb Rana and Suresh Chavhanke Content Type: A4 with overlap: 60
4. Hindu Putra - g and Sangathit Hindus Public (G)– A1 with overlap: 55
5. Hindu Putra - g and Updesb Rana– A1 with overlap: 53

## 1.5 Conclusion

Overall, I believe the most influential cluster of pages are Hindu Putra, Rashtriya Swayamsevak Sangh, We support Narendra Modi, and Bhagvadhari Kattarhindu Yuva foundation. These groups all had large numbers of posts, and therefore had a large amount of influence. I believe that looking through these pages more closely side-by-side could provide a more fruitful analysis of the specific posts of type 'content' that could potentially lead to action.