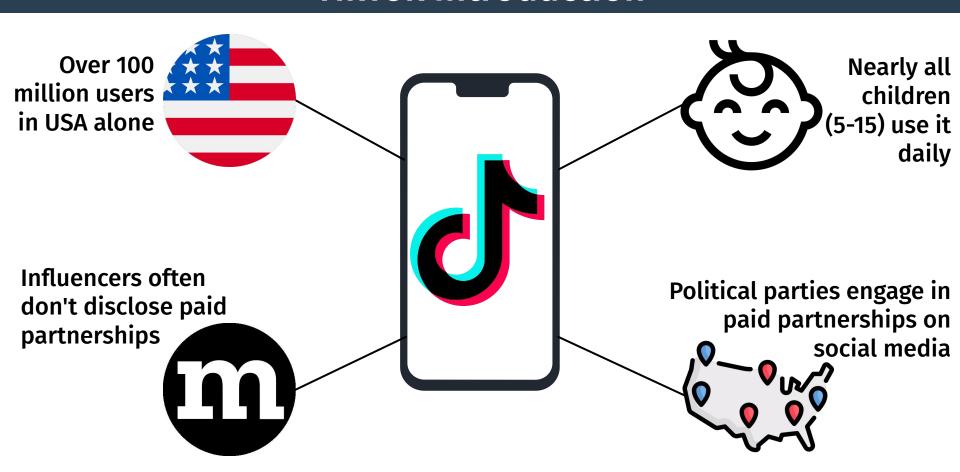
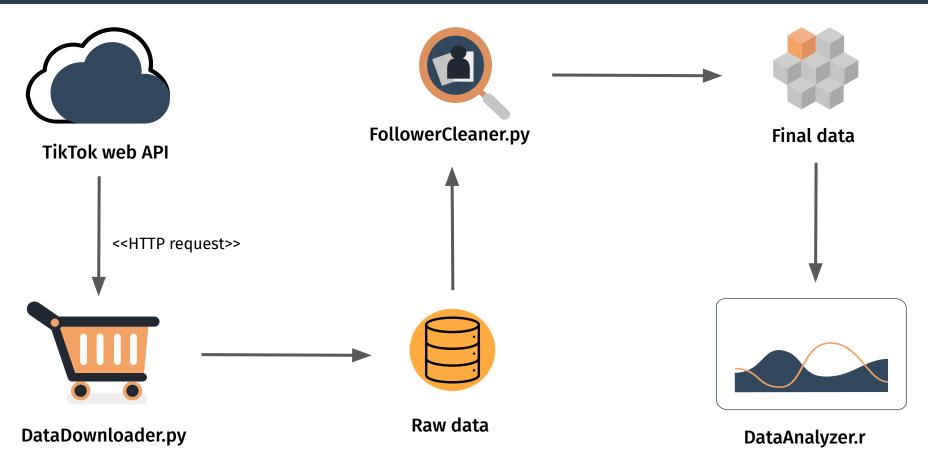
A TikTok study on **US Political Areas**



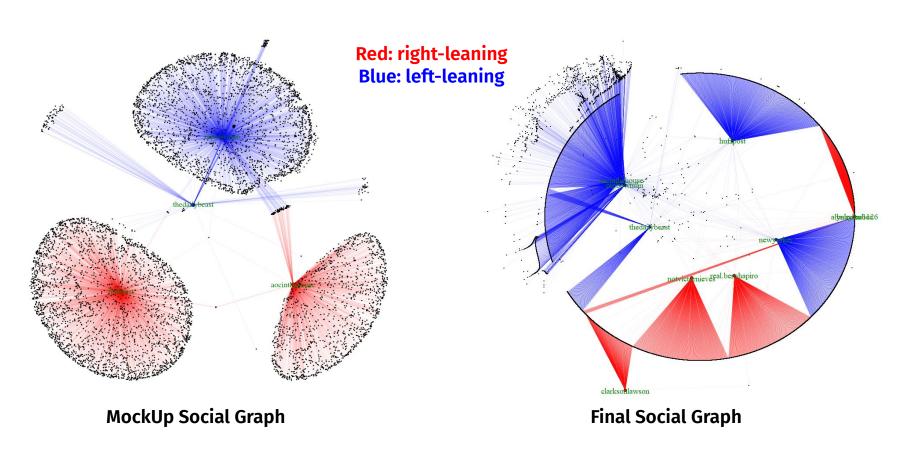
TikTok Introduction



Data Gathering



Social Network Graph



Cosine Similarity

| N, q | CN | Sal | Jac | Sor | AA | RA | Cos | PCC |
|-------------|-----|-----|-----|-----|-----|-----|-----|-----|
| N=10, q=0.2 | 48 | 45 | 46 | 46 | 47 | 45 | 44 | 46 |
| N=10, q=0.4 | 108 | 99 | 99 | 100 | 107 | 102 | 97 | 99 |
| N=10, q=0.6 | 169 | 153 | 153 | 153 | 169 | 163 | 152 | 147 |
| N=10, q=0.8 | 227 | 202 | 201 | 201 | 226 | 220 | 200 | 194 |
| N=20, q=0.2 | 54 | 50 | 50 | 50 | 53 | 51 | 48 | 54 |
| N=20, q=0.4 | 119 | 110 | 109 | 110 | 118 | 114 | 108 | 112 |
| N=20, q=0.6 | 185 | 167 | 167 | 167 | 184 | 179 | 166 | 166 |
| N=20, q=0.8 | 245 | 216 | 215 | 215 | 244 | 238 | 215 | 217 |
| N=50, q=0.2 | 62 | 58 | 58 | 58 | 61 | 58 | 58 | 63 |
| N=50, q=0.4 | 131 | 123 | 123 | 123 | 131 | 127 | 122 | 128 |
| N=50, q=0.6 | 200 | 182 | 181 | 181 | 199 | 195 | 181 | 186 |
| N=50, q=0.8 | 261 | 232 | 231 | 231 | 259 | 254 | 231 | 243 |

| | MovieLens | CN | Sal | Jac | Sor | AA | RA | Cos | PCC |
|---|----------------|----------------|----------------|----------------|------------------------|----------------|----------------|----------------|----------------|
| | q=0.2 | 0.172 | 0.172 | 0.172 | 0.173 | 0.182 | 0.172 | 0.179 | 0.221 |
| | q = 0.4 | 0.342 | 0.344 | 0.343 | 0.344 | 0.390 | 0.344 | 0.358 | 0.412 |
| 6 | q = 0.6 | 0.516 | 0.516 | 0.518 | 0.518 | 0.641 | 0.523 | 0.522 | 0.641 |
| - | q = 0.8 | 0.686 | 0.687 | 0.687 | 0.688 | 0.921 | 0.719 | 0.703 | 0.875 |
| | q=1 | 0.831 | 0.831 | 0.832 | 0.833 | 1.172 | 0.875 | 0.874 | 1.078 |
| | Netflix | CN | Sal | Jac | Sor | AA | RA | Cos | PCC |
| | q=0.2 | 1.256 | 1000 | 1.000 | 1000 | 1.050 | 1.070 | 1 202 | 1 0 (0 |
| | q • | 1.230 | 1.266 | 1.268 | 1.266 | 1.359 | 1.278 | 1.282 | 1.968 |
| | q = 0.4 | 2.505 | 2.505 | 2.508 | 2.506 | 1.359 2.891 | 1.278 2.562 | 3.016 | 1.968 3.921 |
| _ | 1 | | | | Control of the Control | | | | |
| _ | q = 0.4 | 2.505 | 2.505 | 2.508 | 2.506 | 2.891 | 2.562 | 3.016 | 3.921 |
| | q=0.4 q=0.6 | 2.505 3.772 | 2.505 3.774 | 2.508 3.778 | 2.506 3.778 | 2.891 4.688 | 2.562 3.895 | 3.016 5.266 | 3.921 6.313 |

Column: similarity inference precision (higher is better)

Q.-M. Zhang, M. S. Shang, W. Zeng, Y. Chen, and L. L⁻u. Empirical comparison of local structural similarity indices for collaborative-filtering-based recommender systems. Physics Procedia, 3:1887–1896, 08 2010.

Column: computational complexity (lower is better)

Salton Index Matrix

| | thedailybeast | huffpost | aocinthehouse | repbowman | newyorker | alynicolee1126 | babylonbee | real.benshapiro | clarksonlawson | notvictornieves |
|-----------------|---------------|--------------|---------------|--------------|--------------|----------------|--------------|-----------------|----------------|-----------------|
| thedailybeast | 1.0000000000 | 0.0088749628 | 0.003280670 | 0.0030531062 | 0.0028821675 | 0.003546902 | 0.0023624420 | 0.0008080255 | 0.0000000000 | 0.0007953238 |
| huffpost | 0.0088749628 | 1.0000000000 | 0.002755189 | 0.0019942806 | 0.0023532799 | 0.001654876 | 0.0003674144 | 0.0007540000 | 0.0000000000 | 0.0007421476 |
| aocinthehouse | 0.0032806704 | 0.0027551892 | 1.000000000 | 0.0728348570 | 0.0038275628 | 0.001712851 | 0.0003802860 | 0.0019510368 | 0.0000000000 | 0.0007681470 |
| repbowman | 0.0030531062 | 0.0019942806 | 0.072834857 | 1.0000000000 | 0.0019429436 | 0.001594039 | 0.0003539074 | 0.0010894217 | 0.0000000000 | 0.0007148644 |
| newyorker | 0.0028821675 | 0.0023532799 | 0.003827563 | 0.0019429436 | 1.0000000000 | 0.001880989 | 0.0008352317 | 0.0008570222 | 0.0000000000 | 0.0004217752 |
| alynicolee1126 | 0.0035469022 | 0.0016548763 | 0.001712851 | 0.0015940390 | 0.0018809890 | 1.000000000 | 0.0020557341 | 0.0021093667 | 0.0000000000 | 0.0020762086 |
| babylonbee | 0.0023624420 | 0.0003674144 | 0.000380286 | 0.0003539074 | 0.0008352317 | 0.002055734 | 1.0000000000 | 0.0014049602 | 0.0000000000 | 0.0036876667 |
| real.benshapiro | 0.0008080255 | 0.0007540000 | 0.001951037 | 0.0010894217 | 0.0008570222 | 0.002109367 | 0.0014049602 | 1.0000000000 | 0.0006124765 | 0.0052028285 |
| clarksonlawson | 0.0000000000 | 0.000000000 | 0.000000000 | 0.000000000 | 0.000000000 | 0.000000000 | 0.0000000000 | 0.0006124765 | 1.000000000 | 0.0036170919 |
| notvictornieves | 0.0007953238 | 0.0007421476 | 0.000768147 | 0.0007148644 | 0.0004217752 | 0.002076209 | 0.0036876667 | 0.0052028285 | 0.0036170919 | 1.0000000000 |

Red: right-leaning Blue: left-leaning

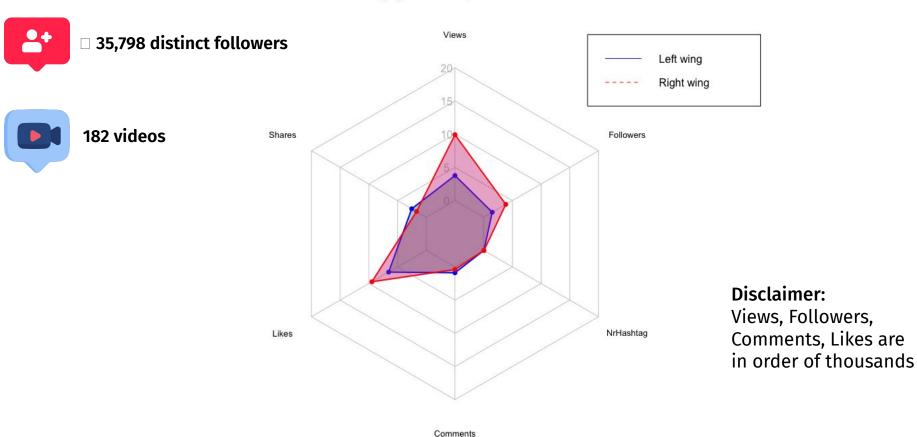
Index Values = [0,1] (Higher equals more similar)

Privacy Inference

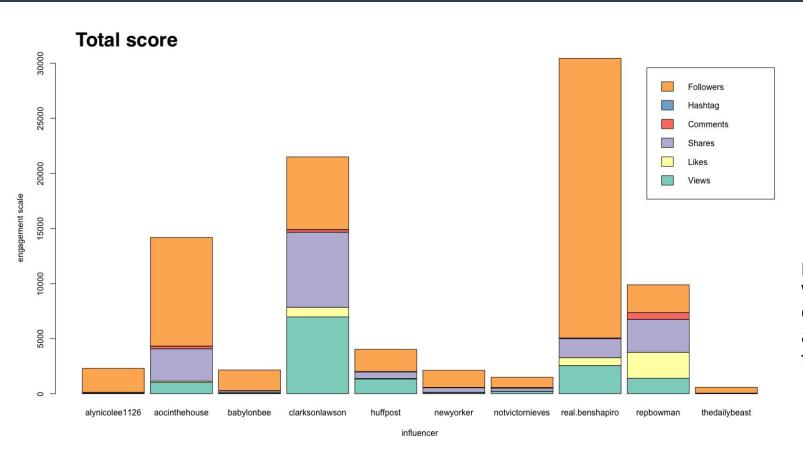
| User | Influencers | |
|--------------------|---|---|
| mdmcgraw1 | huffpost, thedailybeast, newyorker | Left-leaning: |
| tukutanelimuru3 | huffpost, aocinthehouse, repbowman | @huffpost @thedailybeast |
| maazch_official | aocinthehouse, repbowman, newyorker | @newyorker @aocinthehouse |
| britanny_leeann | repbowman, thedailybeast, aocinthehouse | - @repbowman |
| benjaminbitboy | repbowman, thedailybeast, newyorker | |
| audicharon | repbowman, notvictornieves, real.benshapiro | Right-leaning: - @babylonbee |
| sgib527 | babylonbee, real.benshapiro | @real.benshapiro @notvictornieves |
| chellen8er3.0 | babylonbee, real.benshapiro | |
| canyouhearmewaving | babylonbee, thedailybeast | |

Engagement

Engagement for political area

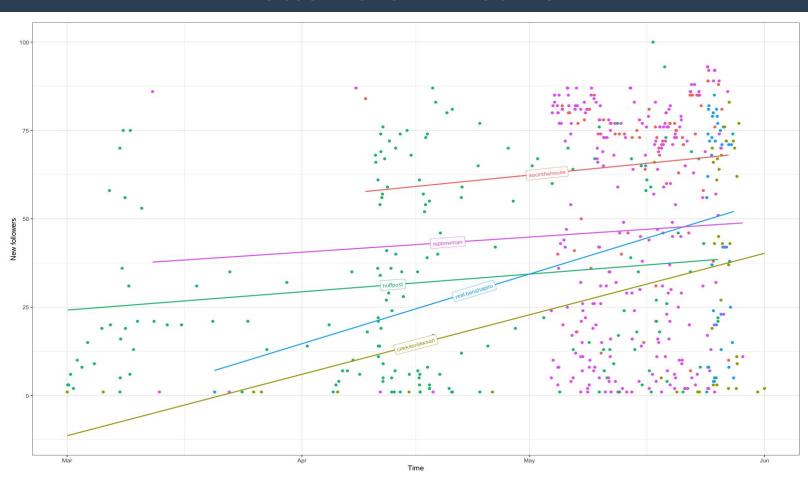


Engagement

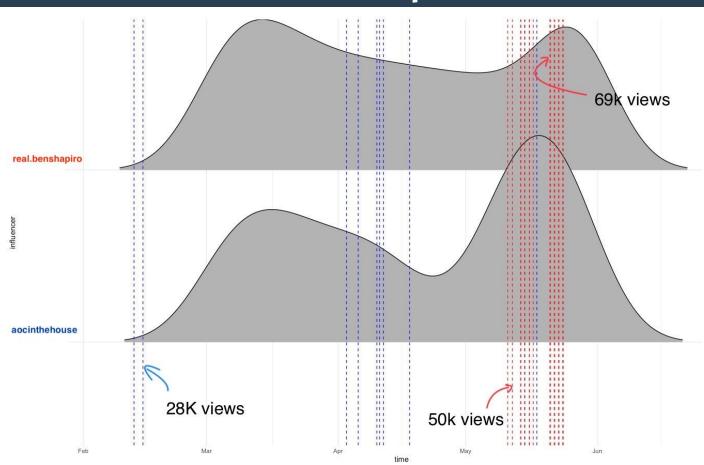


Disclaimer: Views, Followers, Comments, Likes are in order of thousands

Followers Timeline



Content Impact

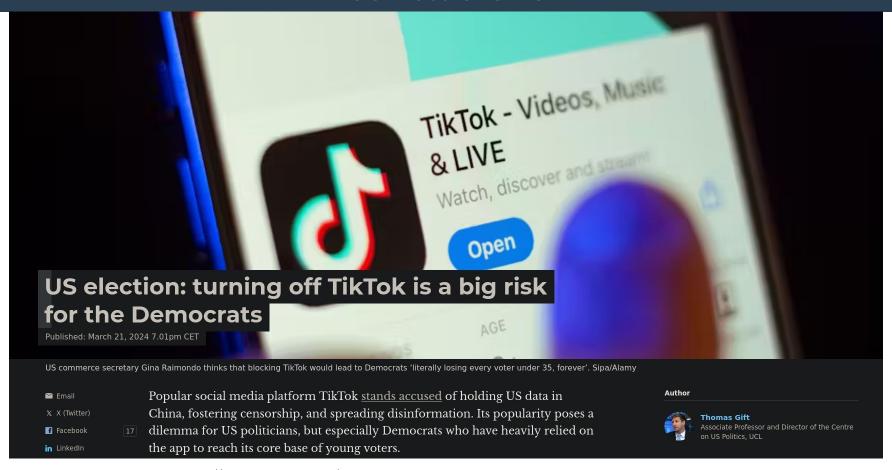


Content Impact



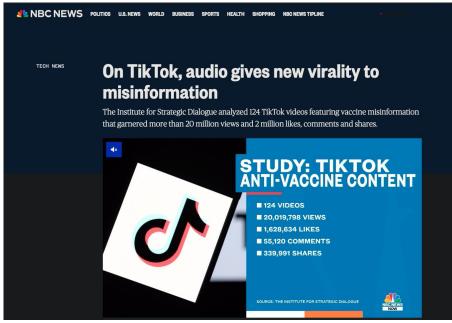
https://www.youtube.com/watch?v=GNye8kCfh4Y

Conclusions



Conclusions



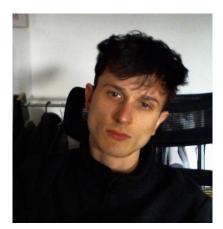


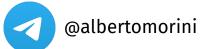
https://www.bbc.com/news/technology-66023797

https://www.nbcnews.com/tech/tech-news/tiktok-audio-gives-new-viral ity-misinformation-rcna1393

Thank you!

Alberto Morini





Marco Bellò



