Goals in Misinformation

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Overview

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Motivation

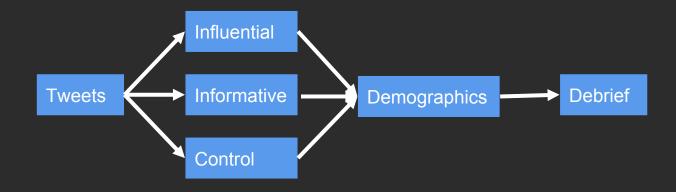
- Social Media is a distribution center rapidly moving information from one source to another.
- Not all social media users are incentivized the same way.
- Do the motivations play into how people use information.

Literature Review

- Cheap Talk/ Bayesian Model
- Recent research has shown that people tend to only agree with and share information which is within their homogenous group (Vicario et. al., 2015).
- Often misinformation that does appear in these homogenous groups will be quickly argued down by members of the group quickly retweeting against fake news (Babcock et. al., 2018).
- Other research has shown that while homogeneous political groups are important, analytical thinking plays a major role in whether someone is able to discern whether information is fake or not (Pennycook & Rand, 2018).
- Building on this analytical thinking approach, other researchers find that goal setting can cause differences in the likelihood of seeking out information while those who are informatively driven to be more likely to ask for information (Ruth, 1993).

How do the goals when using social media impact the users desire to use less reliable information?

Method



Tweets Provided - Ambiguous

Anti-Unemployment	Pro-Unemployment
A Unemployment benefits are hurting our economy. This practice of paying people for no work creates a system of incentives preventing people from going to work, hurting small businesses in the process. These leftist policies need to be stopped.	B My view is you can have fairly high unemployment benefits without impacting employment.

Tweets Provided - Unverifiable

Anti-Unemployment	Pro-Unemployment				
 F Unemployment is a terrible program. If we look back at the great recession in 2008 we know that the increase in unemployment came from a minimal increase in unemployment benefits leading to 8.3 million more unemployed in 2010 and 6.8 million more unemployed in 2011. Stop this nonsense. Find more here. Link not found 	 E The benefits from the Continued Assistance for Unemployed Workers Act only provides \$300/week. But it costs on average \$500,000 to raise a child, this is not enough money. There is no excuse for not raising unemployment. Find more here. Link not found 				

Tweets Provided - Verifiable

Anti-Unemployment	Pro-Unemployment
H The unemployment rate has been trending down over the last year. While there seems to have been a strong peak in April 2020 of 14.8 percent this has gone back down to 6.2 percent and looks to continue to fall. So, on the contrary the economy is getting stronger and the need to increase unemployment benefits is overblown. Find out more here.	G A minimum of 10.1 million people are currently unemployed (as of February 2021). There are likely millions of more people struggling with the need of support out in the world. Congress needs to pass stronger unemployment insurance to support all of those struggling with this crisis. Find out more here.

Dependent Variable Coding

Unverifiable Variable:

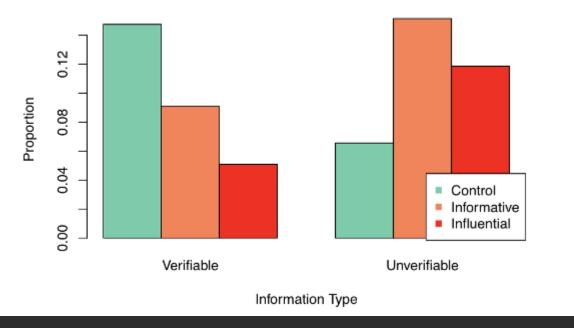
- 1 if using the argument or information in either unverifiable tweet
- 0 otherwise

Verifiable Variable:

- 1 if using the argument or information in either verifiable tweet
- 0 otherwise

Data Analysis

Proportion Using Information Types by Condition



Equations

Verifiable = $\beta_0 + \beta_1$ Influential_i + β_2 Informational_i Eq. 1 Unverifiable = $\beta_0 + \beta_1$ Influential_i + β_2 Informational_i Eq. 2

Verifiable				Unverifiable			
Coef (Std)	Odds	Coef (Std)	Odds	Coef (Std)	Odds	Coef (Std)	Odds
-1.754* (0.361)	0.173	-0.024 (1.63)	0.977	-2.657* (0.517)	0.070	0.619 (1.805)	1.857
-1.173 (0.694)	0.310	-2.1 (1.136)	0.122	0.651 (0.656)	1.918	1.092 (1.321)	2.98
-0.549 (0.560)	0.578	-1.05 (0.814)	0.35	0.934 (0.621)	2.545	2.328 (1.299)	10.254
		-0.679 (0.744)	0.507			-1.931* (0.981)	0.145
		0.702 (1.398)	2.018			-0.572 (1.361)	0.564
		0.928 (1.167)	2.528			-1.631 (1.171)	0.196
		-0.579 (0.442)	0.56			-0.908 (0.511)	0.403
	-1.754* (0.361) -1.173 (0.694) -0.549	Coef (Std) Odds -1.754* (0.361) 0.173 -1.173 (0.694) 0.310 -0.549	Coef (Std)OddsCoef (Std) -1.754^* -0.024 (0.361) 0.173 (1.63) -1.173 -2.1 (0.694) 0.310 (1.136) -0.549 -1.05 (0.560) 0.578 (0.814) -0.679 (0.744) 0.702 (1.398) 0.928 (1.167) -0.579 -0.579	Coef (Std)OddsCoef (Std)Odds -1.754^* -0.024 0.977 (0.361) 0.173 (1.63) 0.977 -1.173 -2.1 0.122 (0.694) 0.310 (1.136) 0.122 -0.549 -1.05 0.351 (0.560) 0.578 (0.814) 0.351 -0.679 0.702 0.507 (1.398) 2.018 0.928 (1.167) 2.528 -0.579 -0.579 0.579	Coef (Std)OddsCoef (Std)OddsCoef (Std) -1.754^* -0.024 -2.657^* (0.361) 0.173 (1.63) 0.977 (0.517) -1.173 -2.1 0.651 (0.694) 0.310 (1.136) 0.122 (0.656) -0.549 -1.05 0.934 (0.621) (0.560) 0.578 (0.814) 0.350 (0.621) -0.679 0.507 (0.702) (1.398) 2.018 -0.702 (1.398) 2.018 -1.058 -0.579 -0.579 -0.579 -0.579	Coef (Std)OddsCoef (Std)OddsCoef (Std)Odds -1.754^* -0.024 -2.657^* 0.070 (0.361) 0.173 (1.63) 0.977 (0.517) 0.070 -1.173 -2.1 0.651 0.122 (0.656) 1.918 (0.694) 0.310 (1.136) 0.122 (0.656) 1.918 -0.549 -1.05 0.934 $0.621)$ 2.545 (0.560) 0.578 (0.814) 0.357 (0.621) 2.545 -0.679 0.702 0.507 -0.679 0.702 1.398 2.018 -1.167 0.928 (1.167) 2.528 -0.579 -0.579 -0.579 -0.579 -0.579	Coef (Std)OddsCoef (Std)OddsCoef (Std)OddsCoef (Std) $^{-1.754*}$ $^{-0.024}$ $^{-2.657*}$ $^{-0.070}$ $^{-0.619}$ (0.361) 0.173 (1.63) 0.977 (0.517) 0.070 (1.805) $^{-1.173}$ $^{-2.1}$ 0.651 1.918 1.092 (0.694) 0.310 (1.136) 0.122 (0.656) 1.918 (1.321) $^{-0.549}$ 0.578 (0.814) 0.35 (0.621) 2.545 (1.299) $^{-0.679}$ 0.507 (0.621) 2.545 (1.299) $^{-0.679}$ 0.507 (1.398) 2.018 -0.572 (1.361) (1.398) 2.018 -1.631 (1.171) -1.631 (1.171) -0.579 -0.579 2.528 -1.631 (1.171)

Note: * indicates p < 0.05

Conclusion

- Unable to find conclusive evidence could be many potential explanations:
 - People poor at filtering information.
 - (Vicario et. al., 2015).
 - Could be mistakes in the methods.
- Intercepts are significant pointing that people are willing to quote potentially dubious material.

Thank you