Social Cues and Interest in Reading Political News Stories

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Abstract

People tend to prefer information sources that agree with their viewpoints, as predicted by the selective exposure theory, and to associate with people who are like them, a process known as homophily. Scholars raise fears that the combination of these factors can limit the diversity of viewpoints to which people are exposed, particularly when people find news through social network sites. In this study, we evaluate whether we can use annotations showing that a story was shared by people who are in some way similar to encourage people to read articles that may challenge their viewpoints. Most annotations (shared city, employer, music tastes, liked organizations, and friendship) had no discernable effect on reading interest compared to no annotation. Shared job type, though, led to decreased interest in reading an article. Although people consider themselves similar to others sharing news articles, this predominantly does not change their reading interest.

Introduction

Many online platforms aggregate news content. In 2014, of the 89% of Americans connected to the Internet, almost half accessed news through Facebook (Mitchell et al. 2015), more than from traditional news sources such as CNN, Fox News, or NBC. Scholars and pundits have expressed concerns that news filtered through sites such as these will be less diverse (Pariser 2012; Sunstein 2002a). People tend to friend and stay connected with people who are similar to themselves (McPherson et al. 2001). This can lead to selective exposure to agreeable information and can lead to polarization of opinion (Sunstein 2002a).

The range of news websites makes it possible for people to access news representing a variety of perspectives. But having access to diverse news is not enough to actually consume diverse news: most people prefer to access websites that conform with their political preferences and worldview (Munson & Resnick 2010; Park et al. 2009) Previous work has shown systems can use interfaces, creative interactions, and algorithms to encourage engagement with diverse points of view (Munson et al. 2009; Munson & Resnick 2010; Grevet et al. 2014). Social network sites and online communities such as Reddit, Facebook, and Twitter present users with socially shared news. Users post this content, and then they and others like, upvote, re-share, and comment on it. Social annotations can make news more interesting when coming from friends than from strangers (Kulkarni & Chi 2013) and make content more persuasive (Sharma & Cosley 2013).

Social network sites and some news websites already accompany content with a variety of cues, reflecting how other people interacted with news articles through likes, shares, or comments. We explore how social annotations can affect reading interest. Because people tend to engage with, and be influenced by, others who are similar to them (Cialdini 1993), we leverage similarity as a design intervention to encourage engagement with political news articles, including potentially opinion-challenging content. Specifically, we evaluate the effects of annotations about who shared an article by presenting people a hypothetical social network feed.

We use similarity of location, profession, employer, music preferences, jobs, or simply that people were friends to annotate news posts shown to participants. We use participants' actual Facebook profile information to create social annotations.

Consistent with prior work, people were most interested with articles that confirm their own views. When a story was annotated as being shared by people with the same job type, it decreased participant interest in reading the story. All other annotations (shared city, employer, music tastes, liked organizations, and friendship) did not significantly affect reading interest.

Related Work

Prior research evaluated a variety of techniques to promote engagement with diverse news content, how people tend to associate with others similar to them when consuming

news content, and how interface features affect people's interest in consuming content.

Exposure to diverse viewpoints and homophily. A growing line of research studies people's engagement with news. People tend to engage with news that supports their own views. This can lead to selective exposure (Sunstein 2002b). Some of these concerns relate to the potential for social network sites to create an echo chamber effect (McPherson et al. 2001; Goel et al. 2010). On social network sites and elsewhere, people tend to engage and associate with others like them, though they may differ politically (Goel et al. 2010; Wojcieszak& Mutz 2009). In this study, we attempt to exploit the combination of similarity and dissimilarity in social network sites to encourage people to read articles representing challenging views by using annotations that highlight something the reader has in common with people who shared the article.

Systems that encourage consuming diverse content. Different system designs can encourage people to engage with diverse opinions. Presentation that highlights varying framing in articles can motivate people to consider opinions they otherwise would not read (Park et al. 2009). Living Voters Guide helped people consider and share viewpoints about proposed ballot initiatives: 45% of users who authored any viewpoint also authored an opposing point (Freelon et al. 2012). Expertise indicators can encourage engagement with dissonant content (Liao & Fu 2014).

Other presentational aspects have also had an impact on how people consume news. Balancer offers feedback on the political lean of user news consumption, leading to a more balanced political exposure (Munson et al. 2013). BLEWS visually annotates articles with the leaning of who references them (Gamon et al. 2008). Annotations of article popularity affects time spent engaging with news (Knobloch-Westerwick et al. 2005). Social annotations are persuasive, especially when they involve close friends recommending music content (Sharma & Cosley 2013) or when peer names are present in an advertisement (Bakshy et al. 2012). When social annotations, names and photos of strangers or friends, are added to news posts, they marginally increase click rates, with friend annotations increasing perceived interestingness of news (Kulkarni & Chi 2013).

Study Design

In this study, we evaluate whether aggregate, anonymous annotations about a reader's shared similarity with the sharers can raise their interest in reading political news articles, including viewpoint-challenging articles. Unlike work by Kulkarni & Chi, we do not reveal names. When people know specific friends have shared polarizing articles, they may unfriend them or hide their updates (Grevet

Fig. 1. Example of article and annotation

2014). In this way, our work is similar to Hansen & Johnson's Veiled Viral Marketing (Hansen & Johnson 2012).

We expected that, through the principle of similarity and liking (Cialdini 1993), the annotations in our study would increase interest in reading political news articles. Our study included dimensions of similarity commonly present in social network profiles, including job, employer, favorite music, support for organizations, geographic location.

We developed an experiment to evaluate the effects of these social annotations on reading interest. We provided participants with 12 news posts that were socially annotated. Participants were presented with one news post at a time and asked to report their interest in reading the article on 5-item Likert scale. After participants finished rating the articles, they were asked to complete a survey reporting their opinion on the topics they read about.

Procedure. The news posts were designed to resemble the presentation of news article posts on Facebook. Each article had a title and an abstract of 30 to 45 words. The topic of each post was one of: gun control, the Affordable Care Act, or abortion. Topics were chosen to reflect controversial subjects about which participants would likely have a strong opinion. We presented four articles from each topic: two that were supportive and two that were in opposition (except for gun control, which had 3 articles in opposition). A journalist wrote the article abstracts to reflect strong opinions while maintaining the tone of a news article.

As a manipulation check, we had five Mechanical Turk workers rate the opinions reflected in each article (for example, supporting gun control or not). For the study we only picked the article abstracts and titles on which we had agreement from the raters. In this manipulation check, each of the articles was presented in the interface as shared by a person with a generic, common name: gender neutral first names and common last names in the US. These checks were intended to prevent effects from the name of the person sharing the article.

After participants rated their interest for each article, we measured their opinion on the topic presented in the articles (gun control, Affordable Care Act, abortion). We used
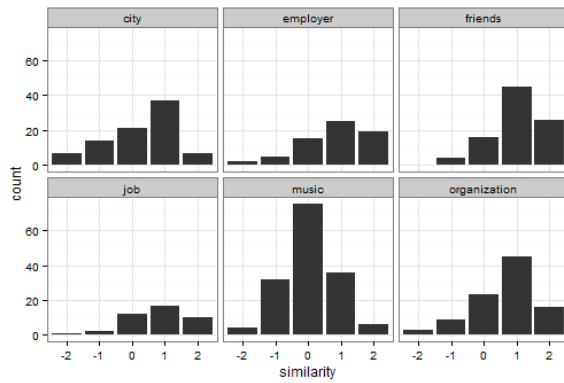
Fig. 2. Perceived similarity between participants and people who have the same characteristic from the intervention

Predictors	Estimate	Std.Err.	p	
Employer	-0.20	0.24	0.39	
Friends	-0.05	0.22	0.80	
Job	-0.63	0.28	0.02	*
Music	-0.05	0.22	0.79	
None	-0.13	0.18	0.46	
Organization	-0.25	0.23	0.28	
Agreement	0.58	0.10	<0.01	***
Article Order	0.02	0.01	0.08	.
Employer:Agreement	-0.11	0.14	0.45	
Friends:Agreement	-0.08	0.13	0.51	
Job:Agreement	-0.14	0.18	0.43	
Music:Agreement	0.14	0.13	0.28	
None:Agreement	0.02	0.11	0.83	
Organization:Agreement	0.08	0.14	0.56	

n=1416, * *p* < .05, ** *p* < .01, *** *p* < .001

Table. 1. Ordinal regression model for reading interest

survey items from Gallup and the Kaiser Foundation (Gallup 2015, Kaiser 2015).

Conditions. For each news post, we randomly picked one of seven annotations. The annotations reflected similarity with the participant through: geographic proximity, job, employer, music preference, cause supported, similarity as friend or no annotation at all. Example annotations included: *"Shared by people who live in [city name], [State]"*, *"Shared by people who work at [organization name]"*, and *"Shared by people who like [band name]."* All annotations referred to other people, but for comparison, we also had one that referred to friends: *"Shared by your friends."*

To populate the annotations, participants were required to log into their Facebook account. We used participant profile data to populate the annotations with data specific to the participants. If the profile did not have an entry for the data, no annotation was presented. If the profile had several entries, for the music and organization (non-profit, NGO, community) categories, we randomly picked one. Articles were presented in randomized order, with an annotation chosen randomly. We measured participant perceived similarity to each group reflected in the annotation using a Likert scale (e.g., *"People who work at [company name] are similar to me"*).

Participations. We recruited through the Amazon Mechanical Turk platform and by posting about the study on social media. We restricted Mechanical Turk participation to those located in the US with a 98% success rate and at least 1000 hits approved. We recruited 140 participants (130 via Mechanical Turk and 10 via social networks). We discarded 16 participants who did not live in the US, due to of lack of familiarity with the article topics.

Analysis. First, we confirmed that the annotations reflected people to whom the participant felt similar. Figure 2 shows the distributions of perceived similarity with others sharing similar characteristics: participants perceived others as

more similar to themselves, predominantly in the city, organization, and friends conditions.

We then conducted an ordinal regression analysis evaluating the effects of the intervention on interest in reading the articles the participants were presented with (a 5-item Likert-like scale from -2 to 2), Table 1. Independent variables included the intervention (geographic, job, employer, music liked, organizations liked, friends annotation). The intercept represents the no-annotation condition. We also included the agreement between the participant's opinion and the stance of the article: if the opinion of the participant on the topic is the same as the stance of the article, then agreement is high, if it is different, then agreement is low (5-item Likert-like scale, -2 to 2). To allow for different effects for when people agreed or disagreed with an article's position we include an interaction affect between agreement and the interaction effects. Finally, anticipating respondent fatigue, we included article order: the sequence in which the article was presented to the participant. The model included a random effect for each participant to account for characteristics of individual participants.

Each of the 1488 observations in the model represented the participant's report of article reading interest, their agreement with the article topic, the order in which the article was presented to the participant. In the analysis we discarded 1 participant (12 observations) who provided the same answer to all the questions. We discarded 60 observations from participants who had changed cities, job, or employer. Each type of annotation was presented a minimum of 68 times (job) and maximum of 168 times (cause). For 611 article views, no annotation appeared. Consistent with expectations, agreement has a significant positive effect on reading interest. Participants are more interested in reading articles that agree with their own opinion.

Of the social annotations, only job had an effect: participants were less interested in reading articles shared by oth-
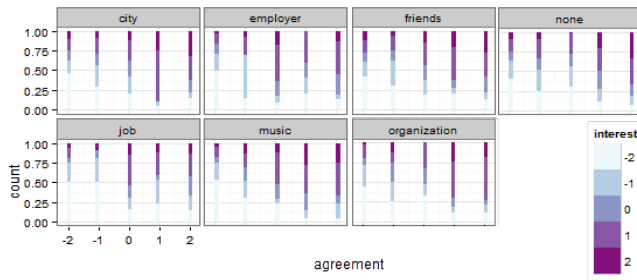
Fig. 3. Reading interest according to intervention and participant agreement with the article presented

ers with the same job. All other annotations did not affect interest, compared to no annotation. We also observed no significant interaction effects. Figure 3 illustrates participant interest in reading articles across the different interventions according to their agreement with the articles.

Discussion

While Kulkarni & Chi demonstrated that annotations related to friends increase click through rates, we found that a generic annotation referring to friends did not increase reading interest. This confirms previous work which emphasized that names of friends are more influential as annotations (Bakshy et al. 2012 Sharma & Cosley 2013).

Despite participants generally perceiving the groups indicated in the annotations as similar to themselves, only a shared job had an effect on reading interest. Unexpectedly, it *decreased* reading interest. Further analysis is needed to understand this result. One possibility is that it is specific to the Mechanical Turk participants, who may identify with their jobs less than others. Our study may also have been limited by demand effects or reactivity, in which participants figured out the intent of the study. Future work in the field may help resolve this issue. Finally, our study evaluated the effects of annotations on articles about controversial political news topics, and participants may react differently to annotations on less controversial issues or non-political topics.

Conclusion

Previous work has shown that social annotations are useful for establishing trustworthiness and persuasiveness of content, especially when reflecting friend relationships. In this study, we find that while readers feel similar to people indicated in social annotations not containing name, these annotations largely did not affect their interest in reading political news articles shared on social network sites. In the case of an annotation indicating a shared job, it actually decreased participant interest. Further research is needed to understand best practices for the design of social annotations and their limitations.

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