

Is This Controversial? Examining Factors Affecting User Opinions

Aseel Addawood*, Yixin Zou**, Masooda Bashir***

*Illinois Informatics Institute, **Department of Advertising, ***School of Information Science, University of Illinois at Urbana-Champaign

Introduction

Controversy refers to issues that are highly resistant to resolution by appealing to evidence, research, or reasoned argument.^[1] People's opinions about controversial topics are usually sharply divided. Given the significant variations in people's attitudes towards such topics and the resulting conflicts, it is important to understand what factors are associated with perceptions about controversial topics.

- Past research has revealed that both individual characteristics and source characteristics affect Internet users' selection of information sources when learning about controversial topics.^[2]
- We are curious to determine individual characteristics that have impacts on users' perceptions of controversial topics.
- Once these characteristics are understood, we can further investigate their impacts and develop deeper insights into Internet users' information seeking and sharing behaviors regarding controversial topics.

Research Questions

RQ1: What topics do users consider controversial/non-controversial?

RQ2: How do individual characteristics impact users' perceptions about the level of controversy for controversial/non-controversial topics?

Method

An exploratory online survey was conducted. A link to the survey was sent using social media and those who were interested chose to participate.

Participant Demographics

- N = 95 (28 male, 62 female, 5 not reported);
- Average age: 42.51 years old;
- Race: 76.6% White, 8.4% not reported, 5.3% Black, 4.3% Asian, 3.2% Other, 2.1% Hispanic/Latino, 1.1% American Indian/Alaska Native

Independent variable

- Individual characteristics: age, gender, race, major field of study, education level, religious belief, political view

Dependent variables

- A list of topics that participants select as controversial or non-controversial
- The perceived level of controversy for each controversial topic, measured by a 5-point scale from "not at all controversial" to "extremely controversial"

Results

RQ1: What topics do users consider controversial/non-controversial?

- Average user ratings for the controversial level of each item were calculated. In this study, items with ratings above 4 were defined as controversial topics and items with ratings below 2 were defined as non-controversial topics.
- Abortion (4.51), encryption backdoor (4.27), and death penalty (4.05) were the top three controversial topics.
- Physical activity (1.41), skin damage (1.43), and natural disaster (1.75) were the three least controversial topics.

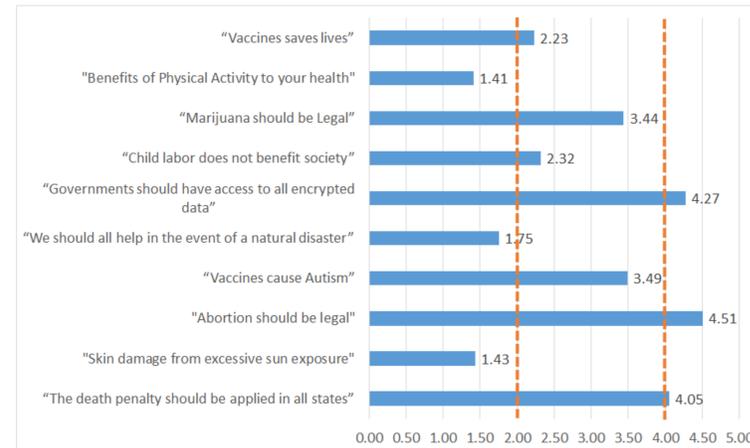


Figure 1: User ratings for controversial levels of each topic

RQ2: How do individual characteristics impact users' perceptions about the controversy level for controversial/non-controversial topics?

The most significant individual characteristics were gender, political views, and religious beliefs.

Controversial topics:

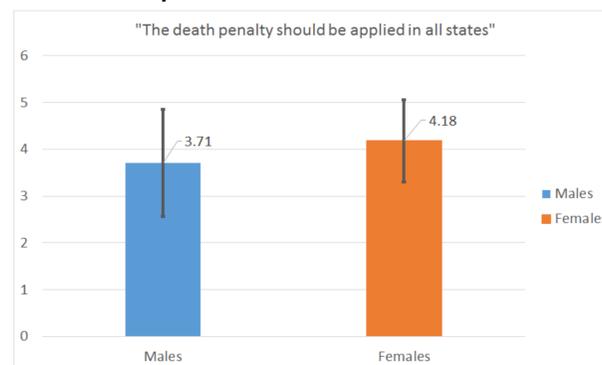


Figure 2: Effects of gender on perception of controversial level

- **Gender:** Male participants rated the controversial level of death penalty (3.71 ± 1.15) significantly lower than female participants (4.18 ± 0.89), $t(89) = -2.094$, $p = 0.039$.

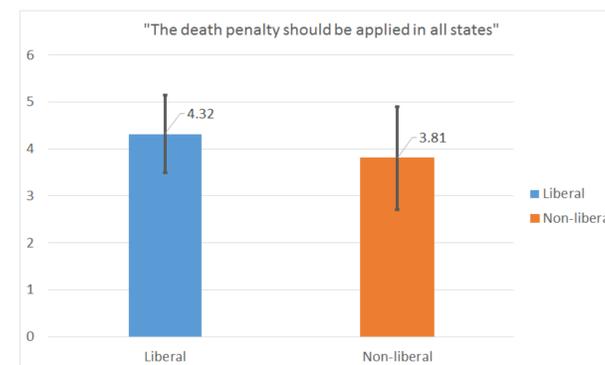


Figure 3: Effects of political views on perception of controversial level

- **Political views:** Participants with liberal views rated the controversial level of death penalty (4.32 ± 0.83) significantly higher than participants with political views other than liberal (3.81 ± 1.10), $t(87) = 2.423$, $p = 0.018$.

Non-controversial topics:

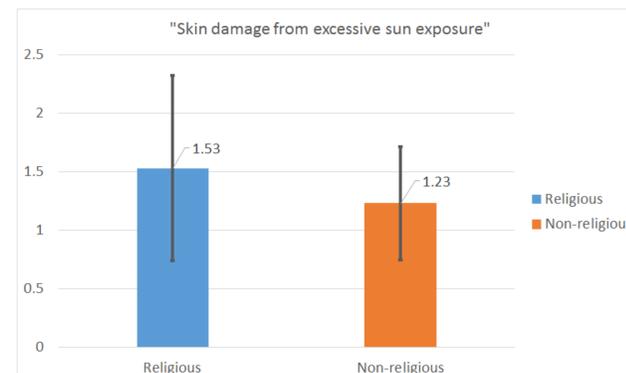


Figure 4-1: Effects of religious belief on perception of controversial level

- **Religion:** Participants with specific religious beliefs (Buddhist, Catholic, Christian, Muslim, Jewish and others) rated the controversial level of skin damage (1.53 ± 0.79) significantly higher than others (Agnostic, Atheist and non-religious) (1.23 ± 0.49), $t(88) = 2.072$, $p = 0.041$.

Discussion

- Our results confirm that the most known controversial topics were mostly related to politics, religion, and philosophy.
- Women consider death penalty regulation to be more controversial than men do.
- People with liberal political views consider death penalty regulation to be more controversial than people with non-liberal political views do.
- People with religious beliefs consider the effect of sun on skin as more non-controversial than non-religious people. This may suggest that religious people believe in science more than non-religious people.

Conclusion

- People's opinions are sharply divided when the topic is controversial.
- We found that Individual characteristics affect Internet users' perceptions of controversial topics.
- Gender and political views affect perceptions on controversial topics while religious beliefs affect perceptions on non-controversial topics.
- Other individual characteristics such as age, education level, and race do not have a significant impact on Internet users' perceptions of controversial topics.

Future Work

- Further research has to be done to confirm the results and to investigate this issue using a larger, more diverse sample.
- Future work could also include information source selection for controversial topics as another dimension.
- Finally, future work could explore the multiple ways interactions between different user characteristics determine perceptions of controversy.

References

- [1] Schon, D. A., & Rein, M. (1994). *Frame reflection: Toward the resolution of intractable policy controversies*. Basic Books.
- [2] Mason, L., Boldrin, A., & Ariasi, N. (2009). Searching the Web to learn about a controversial topic: Are students epistemically active? *Instructional Science*, 38(6), 607-633.