## Deploying a Media Literacy Intervention A Case Study in Indonesia

Pamela Bilo Thomas and Tim Weninger September 2020

## 1 Introduction

The threat posed through online and social media vehicles is particularly compelling in that ordinary citizens will both consume and spread (mis)information through their online activity, affecting thousands of individuals instantly with falsehoods that are then implicitly endorsed by a seemingly qualified source. This issue is especially problematic for new digital arrivals who are least likely to understand the dynamics of these complex social and technical systems. One of the primary consequences of the online and social media environment is that a handful of motivated, malicious individuals can disrupt the information landscape. Tactics vary across regions due to social and design differences in popular online and social media systems. Due to the relative ease of social media manipulation and their large impact on behavior and belief, it is widely expected that malicious individuals and groups will continue to spread harmful and false information. This is especially the case in the lead up to national democratic elections.

At a time when communities around the world increasingly turn to digital sources for information, online and social media systems play a critical role in affecting attitudes and behavior. A core problem is that social media channels are being manipulated by malicious groups to spread misinformation in low- and middle-income countries (LMIC) to exacerbate social divides and influence citizen involvement in democratic processes. The spread and adoption of misinformation through digital channels is especially problematic because many users of online and social media systems are not aware of how (mis)information is spread through these channels.

We conducted an online and social media literacy campaign through a targeted pilot study to answer the following questions:

- In Indonesia, which demographics of people are more likely to believe false information?
- Can we teach people healthy online behaviors?
- How do people change their beliefs about news stories they see online over time?

We deployed a set of videos on a website that we have created to teach Indonesian citizens to think before they spread messages on social media at https://literasimediasocial.id. This website contains short videos and text which encourage individuals to engage in healthy online habits.

Additionally, we conducted several surveys which aim to understand how the Indonesian population is using social media and spreading misinformation. The surveys, administered via phone and web, attempted to understand baseline beliefs about news stories in Indonesia, and their social media habits. Since it is given twice, the survey will help us understand how feelings about these topics change over time and in response to the ingestion of media literacy content. To measure

the effectiveness of our campaign in teaching individuals to correctly discriminate between real headlines and misinformation, we asked respondents to tell us their belief in the veracity of various headlines that were gathered from popular Indonesian news stories. We gave each individual four headlines to respond to, consisting of two true, one false, and one misleading story, and gathered their responses.

## 2 Findings

We find that educational programs are successful ways that the government and policymakers can attempt to solve the problem of misinformation and propaganda spread without resorting to censorship, though more research needs to be done since we had a small sample size. For those that have heard of the false story, 56.7 percent of respondents could identify the story as very or somewhat inaccurate after visiting our website, compared to 39.3 percent of individuals who did not visit our website. These results show that our campaign had an effect on the ability of people to identify false news as such. Additionally, the users who were directed to our website were specifically redirected there after searching for or posting about misinformation on Google or other social media platforms, as per the redirect method. This makes these results even more promising, since the individuals that were sent to our site were deliberately searching for misinformation. Using a Likert scale ranked from 1 to 5, we asked respondents in our control and treatment group to rate their difficulty in determining if information that they see online is true or not. We surveyed individuals twice and identified two groups of people - the control group, who were not actively searching for misinformation on the internet, and the treatment group, who was. After the first survey, we gave the participants the option of visiting our website, and then later ask if they remember viewing our content. For individuals who remember seeing the content that we provided in our treatment group, they were significantly better at identifying misinformation online as those that did not remember seeing our content. It is important to note that we did not test these respondents by asking them about the veracity of headlines like we did in our phone survey - we only asked them to rate their own ability to find misinformation. However, from these results, we can confidently say that people who went to our site, and remember the content, feel as if they have the ability and tools to identify false stories that would not have had if they did not visit our website. Also, we see an increase in the number of people in our treatment group who remember going to our site in responding affirmatively to reading a news article before sharing it, and in what misinformation is. More takeaways from our work includes:

- 77 percent of survey respondents identified disinformation as a big problem in Indonesia.
- 28 percent of the follow-up sample identified that they had viewed Media Literacy Lessons on the website. 95 percent of these viewers said that these lessons were helpful.
- 38.18 percent of people from the follow-up survey who viewed the lessons reported that they felt comfortable telling what news is true or not online, compared to 22.5 percent from the baseline survey. This is an improvement of 15.7 percentage points or 41 percent. Alternatively, there was a 0 percent increase observed for this answer from those who had not viewed the website content. In the follow-up survey, there was a 12 percent reduction in people who viewed lesson content reporting that they were not sure, and a 3.7 percent decrease in those saying they did not feel comfortable. There was a 15 percent increase among people who did not view the website content reporting that they did not feel comfortable telling what was true or not online.

- For the question "do you read articles before retweeting them?" 80 percent of users who viewed the website content responded with "of course" against the pre-redirect baselines of 71 percent (an improvement of 9 percentage points or 11 percent). The percentage of users who answered "of course" but did not view the website actually dropped below the baseline to 62 percent.
- There was an increase in understanding how misinformation is spread online to 13.89 percent overall as the baseline metric was 27.25 percent while the endline result was 41.14 percent.

## 3 Conclusions

In this talk, we will cover the motivations behind why we chose to deploy a social media literacy program to Indonesia. We will share what we have learned about how misinformation spreads and how social media is used in a middle-income democracy. It is our goal to show how lessons learned in this program can be applied to other countries to offer an alternative to censorship for other young democracies that are struggling with how to combat misinformation online.