Global Fears of Disinformation

Perceived Internet and Social Media Harms in 142 Countries

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SUMMARY

Internet disinformation, fraud and harassment have emerged as global concerns. While governments, industry, and civil society groups around the world struggle to address these concerns, there is little comparative data on public perception of the risks associated with using social media and the internet. In this memo, we analyze survey data of 154,195 participants living in 142 countries. On average, people rarely identify technology-related risks as the most prominent threats to their quality of life. But they feature prominently for a significant proportion of the global population and, naturally, feature very prominently for respondents who regularly use social media and the internet. First, we find that globally, disinformation is the single most important fear of internet and social media use and more than half (53%) of regular internet users are concerned about disinformation. Second, almost three quarters (71%) of internet users are worried about a mixture of threats, including online disinformation, fraud and harassment. Third, there is interesting variation in how concerned people are with particular internet harms: worry about the impact of disinformation is highest in North America and Europe, and lowest in East and South Asia; concern about online harassment is higher among women, and especially so among women in Latin America.

INTRODUCTION

While the internet and social media are fundamental infrastructure for modern life in many countries, public concern around the negative impact of such technologies is sometimes quite significant. Disinformation has complicated public health efforts around COVID-19, polarized public opinion on key policy questions, and degraded public confidence in electoral outcomes.[1], [2]

Experts have always pointed to potential social and personal risks associated with new information technologies and algorithms—at the same time recognizing the opportunities and transformative potential of those technologies for virtually any domain of public life. As COVID-19 has become a pressing public health emergency, the use of digital technologies to combat the spread of the disease and develop vaccines has been the topic of much debate—which was accompanied by a trail of online falsehoods and conspiracy.[4]

People around the world perceive different risks in the technology they use. Algorithmically-driven decision-systems have been shown to discriminate against Black people.[5], [6] Minorities and political dissidents have been the targets of systemic harassment over social media.[7] The spread of political disinformation has become a standard feature of electoral campaigns.[8], [9] Anti-technology rhetoric has connected technology to addiction and harm.[10] Issues surrounding the risks of technology have certainly featured prominently in the public agenda for many countries. However, there is no global or comparative context to the perception of such technology risks, and our goal here is to provide such context. Which technology risks are people most concerned about?

DATA AND METHOD

In this analysis, we conduct a comparative analysis of the public perception of the risks of disinformation, fraud and harassment on the Internet. Using data from the *2019 World Risk Poll*, we analyze basic descriptive statistics about public opinion drawn from a sample of 154,195 respondents living in 142 countries. The survey design, participant recruitment and interviews were conducted by Lloyd's Register Foundation and Gallup. A detailed methodological description for the *2019 World Risk Poll* is available on the Lloyd's Register Foundation's website.

As a survey instrument, the *2019 World Risk Poll* employed an interview-based survey design using both face-to-face and telephone interviews. The survey questionnaire was designed by Gallup and Lloyd's Register Foundation in an iterative, multi-step process. The initial draft questionnaire was based on a review of relevant literature and expert interviews. This draft was then piloted and refined for two rounds in several countries. The final survey was comprised of ninety-five questions including background and demographic information.

The final survey included diverse questions on a wide array of risks, including issues such as food safety and physical safety at the workplace, as well as technology-related risks. Not every respondent was asked every question. For example, only people who had reported using the internet were asked certain relevant follow up questions relating to the use of the internet. The questionnaire was translated into the major conversational languages of each country.

More than five thousand interviewers conducted interviews, having first participated in standard Gallup training on research ethics, fieldwork safety and interviewing techniques. At least 30% of face-to-face interviews and at least 15% of telephone interviews were validated through accompanied interviews, re-contacts or listening to recordings of interviews. Interviews for the *2019 World Risk Poll* were conducted between 8 May 2019 and 17 January 2020.

At least 1,000 respondents were surveyed in each country. All samples were probability based and nationally representative of the resident adult population—as defined in-country. The coverage area included the entire country, and the sampling population represents the entire population aged fifteen and older.

For countries where population information was available, participant selection was based on probabilities proportional to population size. If no population information was available, random sampling was used. For face-to-face interviews, random route procedures were used to select households and participants were selected randomly within the households. For telephone interviews, telephone numbers were generated randomly, using a list-assisted random approach, or were selected randomly from a registered listing.

The *2019 World Risk Poll* does not publish response rates on a country-by-country basis but the median response for fifteen regions is available. Across these regions, the response rate ranged between 6% on the low end for North America and 80% for Middle and Western Africa.

The margin of error used in estimating the unknown population proportion "P" for the *2019 World Risk Poll* can be derived based on the following formula, where "n" is the number of respondents:

$$\text{Margin of Error} = 1.96 * \sqrt{(P*(1-P)/n)}$$

The margin of error for a sample size of 1,000 with P=0.5 will be $1.96 * \sqrt{(0.25/1000)}$, or 3.1%, under the assumption of simple random sampling. A detailed table of 95% confidence interval half-widths for various sample sizes is available in the *2019 World Risk Poll* methodology appendix.

Results were reported globally, regionally, and nationally. Survey answers were weighted to ensure that samples were nationally representative for each country. Accordingly, larger countries received more weight than smaller countries because of population size. In addition, population statistics were used to weigh survey data by gender, age, and where reliable information was available, education or socioeconomic status. Additional information about national sample sizes, response rates, population weights, error margins, confidence intervals and other country-specific sampling details is available in the *2019 World Risk Poll* methodology appendix.

Our team did not participate in the design or fielding of the instrument itself but has conducted the statistical and secondary analysis needed to identify national trends and a global context for public opinion on the risks of AI in decision making. No new data was collected or used for this analysis. The results reported in this Working Paper make use of the weights calculated for the *2019 World Risk Poll*. When calculating averages for regions, the averages for individual countries in the region were weighted proportionally to the population size of the respective countries.

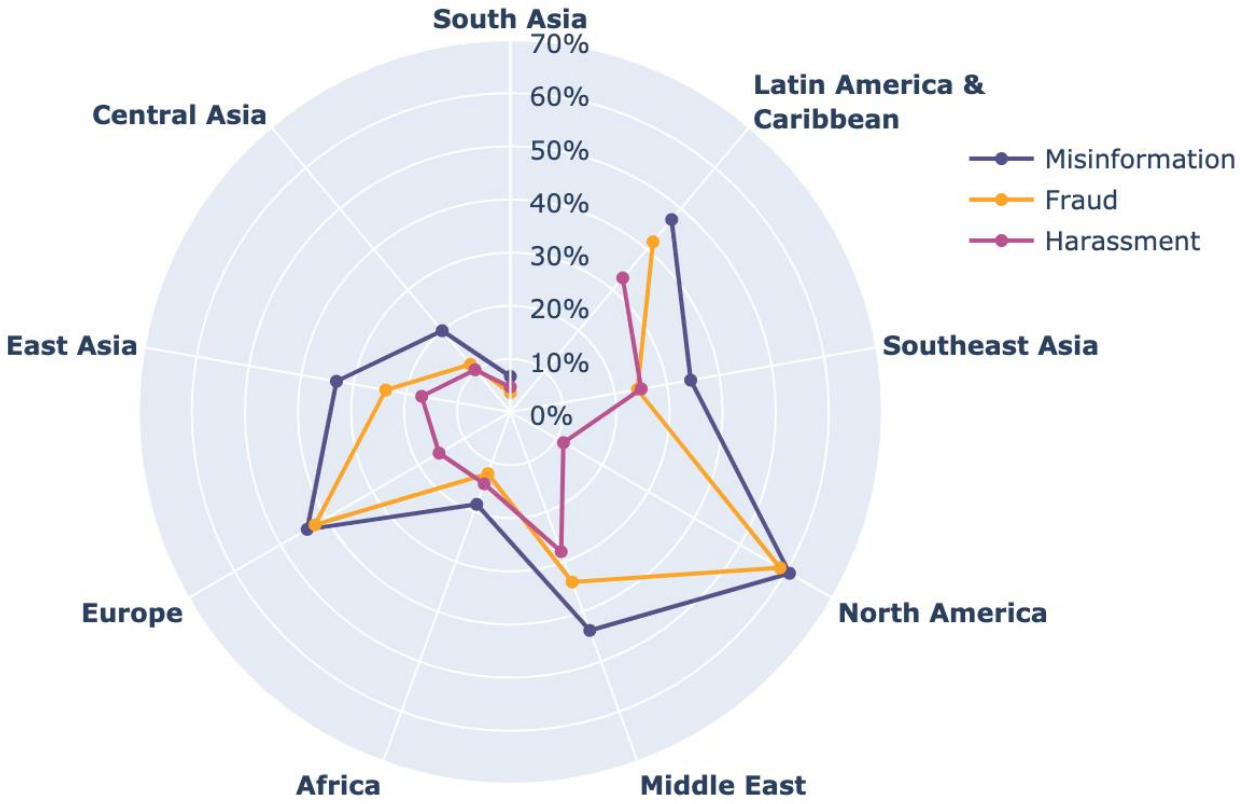
FINDINGS

The survey included an open-ended question about which threats people perceive as the most serious in their daily lives: "In your own words, what is the greatest source of risk to your safety in your daily life?" Only about 2% of the survey participants mentioned technology-related risks in their response to this broad question about all of life's risks. Threats of violence and traffic accidents are typically the most important risks to people around the world, with 18% and 15% of respondents respectively seeing these as the most important risks. It is rare for people, unprompted, to identify technology-related risks as the most severe threat in broad context of their lives. Nevertheless, our analysis shows that many people do see dangers related to social media and internet use, and that these perceived risks increase with more technology use.

To understand risks related to digital communication, the survey included a dedicated question: "When using the internet or social media, do you worry about any of the following things happening to you?" The three potential risks listed were:

- receiving false information, such as news or information which is not true.
- fraud, such as someone stealing your bank information or your money.

Figure 1. Proportion of All Respondents Worried about Disinformation, Fraud and Harassment on the Internet, By Region



Source: Authors' calculations based on survey data collected between 8 May 2019 and 17 January 2020 for the *2019 Word Risk Poll*.
Notes: The denominator for these figures includes people who have not used the internet recently, and for whom internet-related risks are not relevant. Based on sample of 154,195 respondents in 142 countries, with averages weighted by national population size before regional aggregation. Additional information about country-specific sampling details, including response rates, population weights, error margins, and confidence intervals, is available in the *2019 World Risk Poll* methodology supplement.

- online bullying, such as someone sending a hateful message or comment through social media.

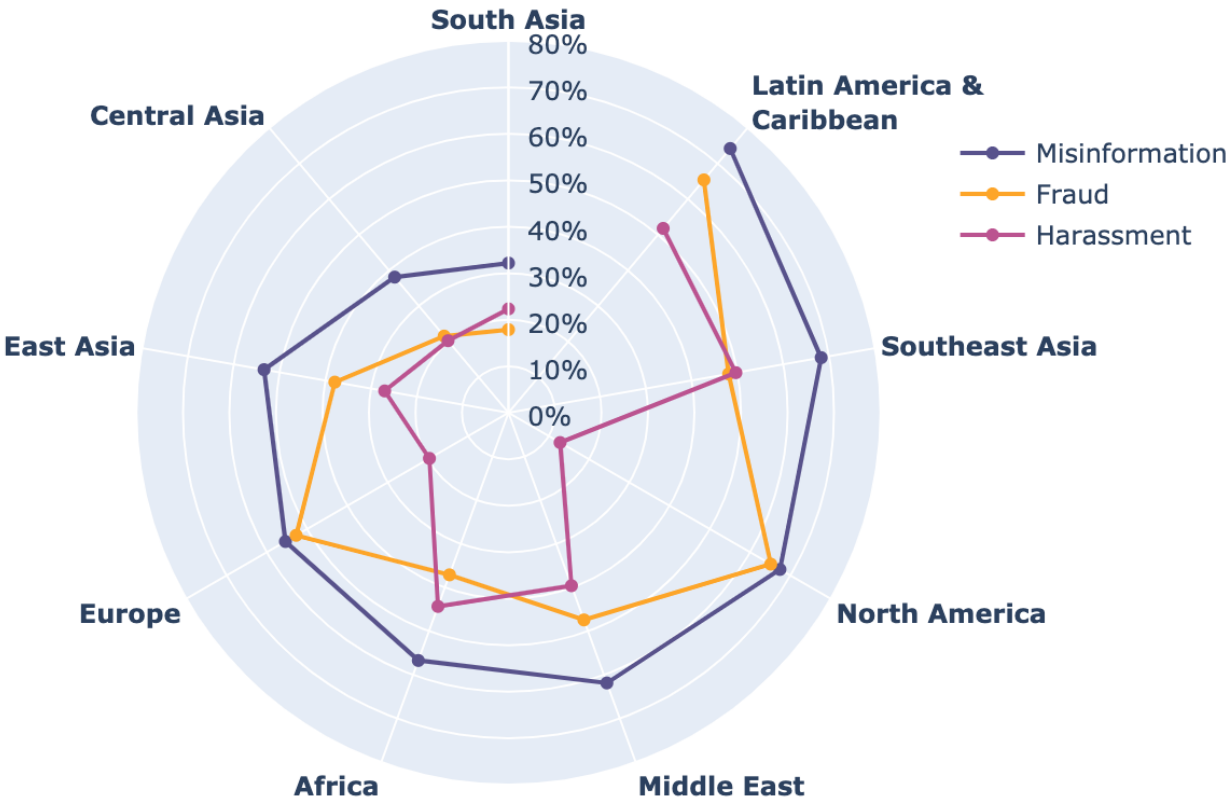
In this memo, we refer to these three risks as disinformation, fraud, and harassment. Out of all internet users, 71% said that they worry about at least one of these three happening to them. Obviously, these internet-related risks are not relevant to the decreasing but still significant part of the world's population that does not use the internet. All in all, 42% of the respondents to the *2019 World Risk Poll* said that they had not used the internet or social media in the past thirty days. Respondents who had not used the internet recently also did not answer the questions about internet-related risk.

Figure 1 shows the proportions of all respondents worried about disinformation, fraud, and harassment on the internet, by region. Out of the three internet-related risks—disinformation, fraud, and harassment—disinformation is seen as the most significant threat. Though the share of people who worry about false information online varies, Figure 1 shows that in almost all regions around the world a larger share of people worry about disinformation than other online threats. Among the general population, disinformation and fraud are of roughly equivalent concern in North America, with about 60% of respondents reporting concern. In South Asia, Central Asia, and Africa, people rarely perceive technology-related risks as being worrisome.

Figure 2 reveals that among more regular internet and social media users, the perceived threats of technology harms are even higher. Overall, 53% of regular internet and social media users worry about encountering disinformation online. North America is the region where the largest share of the population views disinformation as a threat, with on average 65% of internet users worrying about it. Within Europe, there is a significant degree of variation: more than 70% of internet users in Italy and France worry about disinformation, while the figure is less than 40% in the Baltic countries and Poland. There is even more substantial variation worldwide. In South Asia, only 7% of the general population worry about misinformation, and only 32% of internet users express this worry.

The perceived risk of online harassment varies more than that of other internet-related risks. It is most prominent in what is often referred to as the "Global South", and is especially high in Latin America, South East Asia, and Africa, where over 40% of internet users worry about being harassed online. The fear of harassment is lowest in Europe and North America,

Figure 2. Proportion of Internet Users Worried about Disinformation, Fraud, and Harassment on the Internet, By Region



Source: Authors' calculations based on survey data collected between 8 May 2019 and 17 January 2020 for the *2019 Word Risk Poll*.
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though in Russia and Central Asian countries the perception of harassment as a risk is also uncommon.

There were some differences in perceptions of technological risks between demographic and economic groups, but as a rule these were smaller than the differences between countries. Perhaps unsurprisingly, people living in rural areas as well as people who are unemployed are less likely to worry about internet-related risks.

Globally, a little less than a third of male respondents worry about online harassment, and a little more than a third of female respondents worry about online harassment. However, in some regions the gender divide grows. In Latin America, for example, fully half of female respondents—51%—worry about online harassment, while the figure for men is 38%.

CONCLUSIONS

In this study, we made use of a unique, large-scale survey dataset to compare perceptions of technology-related risks between different regions, countries and professional groups. We find that, globally, people are most concerned about disinformation out of all technology-related risks. It is important to remember that only few respondents identified technology-related risks as the most important in comparison to other more direct threats to their quality of life. Nevertheless, concerns about technology, and especially online disinformation are widely held. Naturally, the concern about disinformation runs highest among regular users of the internet and social media. Internationally, sentiments about technology are ambivalent at best.

There are important differences between which risks are most prominent in particular countries or regions. For instance, North Americans and people from Western Europe see disinformation a critical risk to their technology use. Survey respondents in South and East Asia still perceive such risks, but at notably lower levels. The survey data available, though extensive in its geographic reach, only included a small number of questions about technology-related risk. More detailed research on the topic is required fully to describe the range of differences in the risks created by technology and how they are experienced by people in different positions. Further research would also be required to be able to explain these differences, and to see whether they relate to differences in technological environments or, for instance, cultural or social institutions. The results do remind us, however, that the impact of social media and new information technologies varies from country to country, culture to culture, and person to person.

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ABOUT THE PROJECT

The Computational Propaganda Project (COMPROP), which is based at the Oxford Internet Institute, University of Oxford, involves an interdisciplinary team of social and information scientists researching how political actors manipulate public opinion over social networks. This work includes analyzing how the interaction of algorithms, automation, politics, and social media amplifies or represses political content, disinformation, hate speech, and junk news. Data memos integrate important trends identified during analyses of current events with basic data visualizations, and although they reflect methodological experience and considered analysis, they have not been peer reviewed. Working papers present deeper analysis and extended arguments that have been collegially reviewed and engage with public issues. COMPROP’s articles, book chapters, and books are significant manuscripts that have been through peer review and formally published.