

# The world's anxiety of cybercrime in 2019\*

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## Abstract

The emergence of the internet has altered the way we live, work, and communicate with each other. Despite being a tool to improve life in overall, technology and the internet also pose some potential risks that greatly affect the life of people. This paper aims at identifying the perceptions of risk of using the internet among people around the world by exploring the patterns and the relationship between gender, the number of children, the living location and the perception of risk towards online bullying. Findings show that females tend to be more worried about experiencing cybercrime than males, people having more children also witness the same pattern. Results also show that gender, the number of children, and the living location affect the anxiety of the prospect of being a victim of cybercrime.

## 1 Introduction

The emergence of the internet has altered the way we live, work, and communicate with each other. It has become an integral part of our daily lives, offering numerous benefits such as instant access to information, online shopping, and communication with people from all over the world. However, along with these benefits, the Internet also poses various risks to its users.

The dangers of using the internet increase as it develops and expands. Some of the main dangers that people encounter include cybercrime, online scams, identity theft, cyberbullying, and pestering. Regardless of the person's age, gender, or location, these dangers can have significant financial and mental repercussions. Findings from Gray (2017) about emerging technology and its potential risk suggest that the Internet of Things (IoT) fell into the group of technology that had lots of risks, but not so much reward. On the one hand, they gave more access to the life of people. On the other hand, they could also "give cyber-criminals a window to our world".

Therefore, it is essential to recognize these dangers. Understanding and identifying risk is as important as keeping the world healthy. This paper focuses on identifying the perceptions of risk of using the internet among people around the world. The paper also analyzes the correlation between education, income, and living locations, and how these factors affect the perception of risk towards the internet. In exploring the patterns of risk perception, the paper hopes to provide insights into people in different demographics experience and perceive potential risks posed by digital technology, through which will improve digital well-being, raise awareness, and enhance the ways to protect internet users in the world.

This paper will firstly explore the patterns of risk posed by technology in the world and in different global regions from the data of "World Risk Poll" (2019) in 2019 using R Core Team (2022). Various groups (of gender, education, and income) are observed to see how they affect the respondent's perception of risk caused by the internet. Other packages such as tidyverse Wickham et al. (2019), readr Wickham, Hester, and Bryan (2022), haven Wickham, Miller, and Smith (2023), janitor Firke (2021), ggplot2 Wickham (2016), tidymodels Kuhn and Wickham (2020) etc. are also used to aggregate, visualize, and model the data.

The main findings show that females tend to experience more anxiety towards the prospect of cybercrime than males. People living in low-income countries tend to witness the same pattern. People who have less kids tend to be less worried about the potential of risk.

In the following paper, I will delve into the data from "World Risk Poll" (2019), and how it is obtained and arranged for proper analysis. This section will also guide us through the understanding of the initial survey and ethical concerns

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\*Code and data are available at: <https://github.com/juliennguyennn/World-Risk-Analysis>

regarding the data collection. Moving on to the Model section, we will discuss our model and its implications for how we interpret our results going forward. In the Results section, graphical data is shown as to provide a clear understanding of the results given. Lastly, the Discussion section will include what has been done, what was learnt as well as identify some weaknesses and propose the next steps for the paper. .

## 2 Data

### 2.1 Dataset

Describe dataset Others dataset could be used?

### 2.2 Variables

### 2.3 Ethical Concerns

## 3 Model

Multiple logistic regression is used for analyzing the correlation between gender, the number of children, living location and the anxiety of the prospect of being a victim of cybercrime.

Call:

```
glm(formula = anxiety ~ gender, family = "binomial", data = gender_risk)
```

Deviance Residuals:

Min	1Q	Median	3Q	Max
-0.9268	-0.9268	-0.8699	1.4507	1.5200

Coefficients:

	Estimate	Std. Error	z value	Pr(> z )
(Intercept)	-0.622780	0.009892	-62.96	<2e-16 ***
genderMale	-0.154032	0.014292	-10.78	<2e-16 ***

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Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

(Dispersion parameter for binomial family taken to be 1)

Null deviance: 112568 on 88519 degrees of freedom  
 Residual deviance: 112452 on 88518 degrees of freedom  
 AIC: 112456

Number of Fisher Scoring iterations: 4

Call:

```
glm(formula = anxiety ~ children_in_household, family = "binomial",  
     data = children_risk)
```

Deviance Residuals:

Min	1Q	Median	3Q	Max
-1.1980	-0.9386	-0.8122	1.4024	1.5935

Coefficients:

	Estimate	Std. Error	z value	Pr(> z )
(Intercept)	-0.93974	0.01038	-90.53	<2e-16 ***
children_in_household1	0.34830	0.01918	18.16	<2e-16 ***
children_in_household2	0.42481	0.02023	21.00	<2e-16 ***

```
children_in_household3 0.63118 0.02803 22.52 <2e-16 ***
children_in_household4 0.71660 0.04067 17.62 <2e-16 ***
children_in_household5+ 0.98800 0.03936 25.10 <2e-16 ***
---
```

```
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
(Dispersion parameter for binomial family taken to be 1)
```

```
Null deviance: 112252 on 88299 degrees of freedom
Residual deviance: 110799 on 88294 degrees of freedom
(220 observations deleted due to missingness)
AIC: 110811
```

```
Number of Fisher Scoring iterations: 4
```

## 4 Results

## 5 Discussion

This gives valuable insights for pre-covid.

## 6 Appendix

### References

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