

Cybercrime in the European Union: Perception and Reality

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Why Europe?

- ► Historically, the European Union (EU) has been incredibly transparent and liberal with its statistics and research with initiatives like the Eurobarometers— public opinion surveys given by the European Commission starting in 1974.
- Currently, the United States lacks a similar coordinated research effort. Consequently, the US lacks accessible data for cybercrime and cybersecurity in general.
- ▶ In the EU, Special Eurobarometers from 2012 to 2019 have been recording the perception of cybercrime in addition to other invaluable pieces of information, such as internet accessibility and use.
- ► This data will be combined with data concerning trends in cybercrime to construct the capstone project.



Rationale

This project aims to:

- Analyze the correlation between perception of cybercrime and actual cybercrime.
- Display the relationship between internet access/use and various factors, such as country.
- Determine the effect EU legislation has had on the perception and reality of cybercrime.
- ► Establish a timeline consisting of all major data breaches, privacy scandals, EU Legislation, internet market penetration, perception of cybercrime from 2012 to 2018, and other statistics of note.
- ▶ Anything else that is deemed noteworthy and/or neccessary.

Research Goals

- ► The goal of this project is to determine if EU legislation, in addition to other EU funded endeavors, have an effect on the perception of cybercrime in the EU, actual cybercrime in the EU, and internet access for EU citizens.
- Better understand the relationship between the perception and reality of cybercrime.
- Analyze trends in cybercrime in the EU.
- ▶ Predict future trends, breaches, and legislative goals.
- ► Encourage the United States to collect data on cybercrime and make it publicly available so that future research can be done on cybercrime in the United States.

Procedures

- Phase I: Process the raw data in preparation for analysis.
- Phase II: Analyze the data using statistical and data science methods.
- Phase III: Construct models relevant to the Rationale and Research Goals.
- Phase IV: Write the paper in LaTeX.
- Phase V: Present at Science Fair.



Data

- ▶ 5 Eurobarometers
- ▶ 140 Factsheets
- ▶ 149 Spreadsheets of Field Data
- ► Have I Been Pwned's "Pwned Websites" List
- Numerous background research papers, such as IOCTA 2018.

