Motivation
- In the past year, 1 million children were victims of cyberbullying on Facebook.
- There has not been sufficient research in identifying cyberbullying behavior in social networks and media.

Our Contribution
- Facebully is an application designed to identify a case of cyberbullying by exploiting the social media data available.
- The application is based off of a model designed for cyberbullying identification that was built on previous research findings of both traditional and cyberbullying in adolescents.

Benefits
- Once Facebully is ready for deployment, it can be used, e.g., for parents to monitor their children via their social network and forewarn them if their child is a victim of online aggression.
- The model used to design the application can be modified to identify other behaviors as well, such as depression or self-destructive tendencies.

Future Work
- Finish the implementation of Facebully 1.0.
- Study mechanisms to dynamically adjust the Bullying Rank by using machine learning techniques.

Facebully Design
- Facebully measures the intensity of online aggression a user may be experiencing by first identifying two major factors:
  - Warning signs
  - Vulnerability
- Each factor consists of sub-factors whose values can be computed from the data available in the user’s profile.

Bullying Ranks (0-59):
- Warning Signs (S): [0, 100]
  \[ S = \min(100, w_1 \cdot IWC + w_2 \cdot CEP + w_3 \cdot IMC + w_4 \cdot ICC) \]
- Vulnerability (V): [0.22, 0.59]
  \[ V = (w_5 \cdot AGF) \cdot (w_6 \cdot NSF) \cdot (w_7 \cdot NNF) \]
- Bullying Rank (B): [0, 59]
  \[ B = S \cdot V \]

Levels
- Low Risk: [0,02]
- Medium Risk: [21,40]
- High Risk: [41,59]

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