

# BullyBlocker

An App to Identify Cyberbullying in Facebook

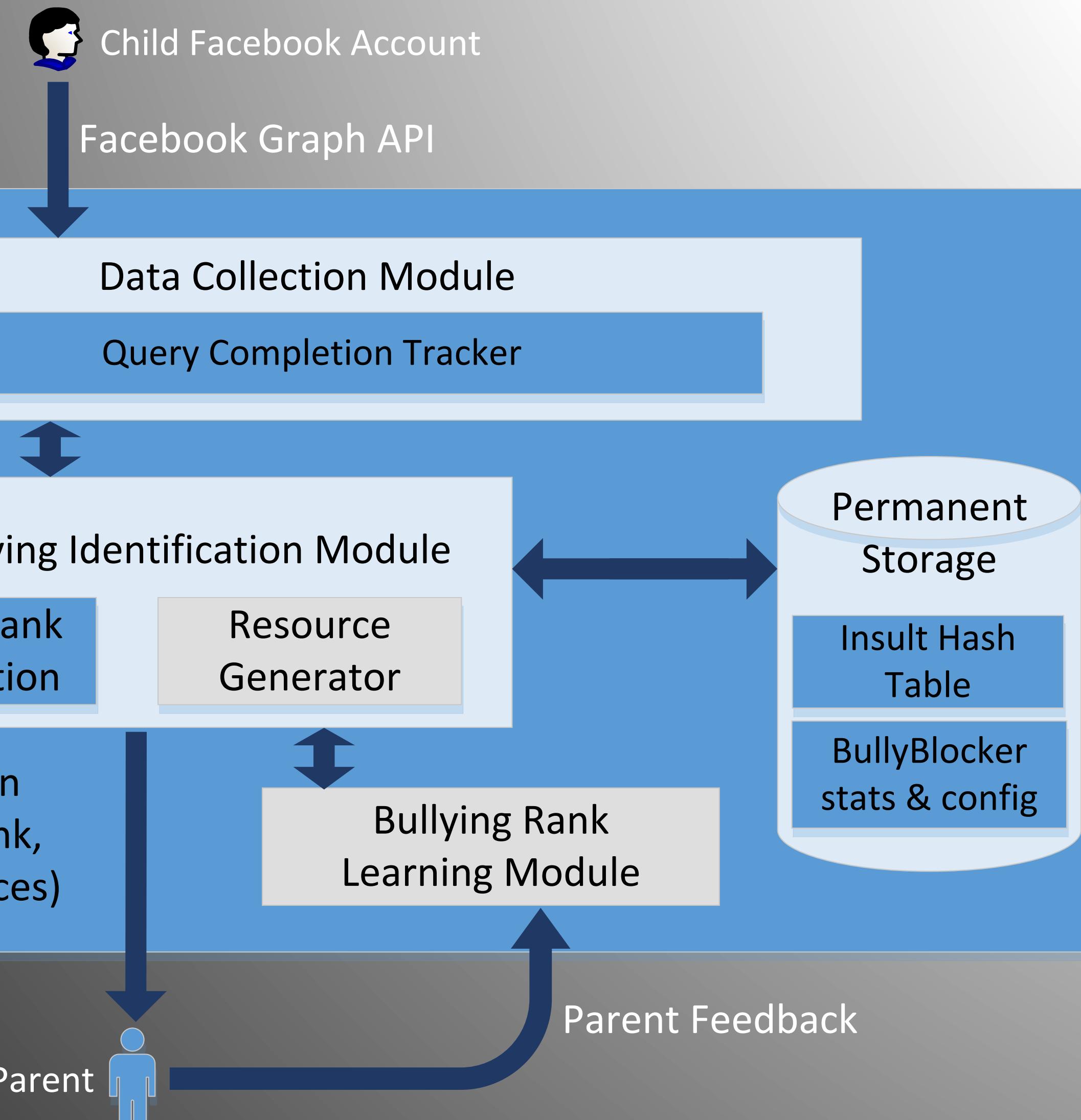
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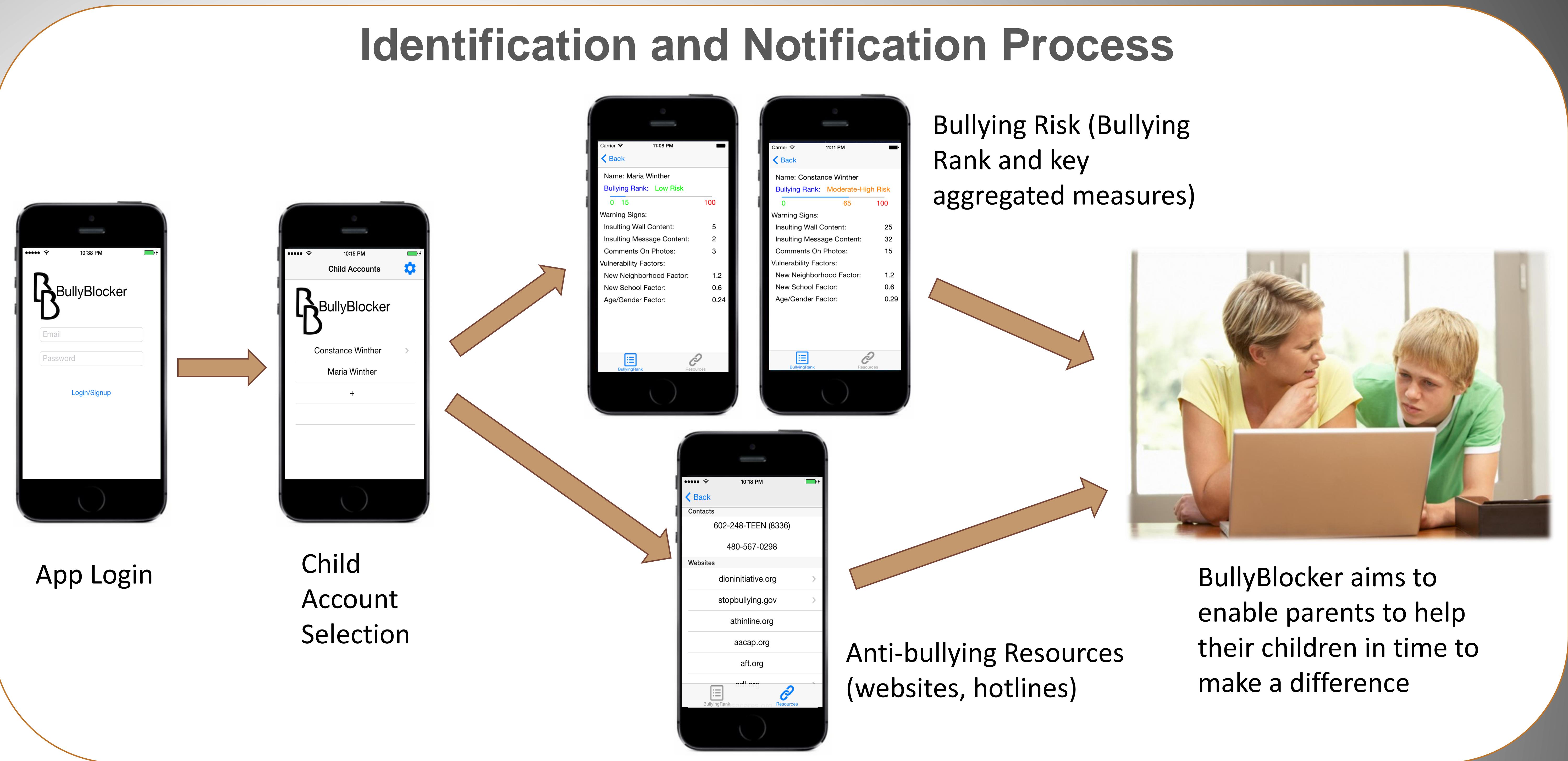
## Motivation

- Cyberbullying is the most common online risk for adolescents.
- Half of young people do not tell their parents when it occurs.
- The consequences of cyberbullying—which can include anxiety, depression, and even suicide—are detrimental on both an individual and societal level.
- We present and demonstrate BullyBlocker, an app that identifies cyberbullying instances in Facebook and notifies parents when they occur.
- The identification of cyberbullying factors is guided by previous results in psychology.
- Contributions of this paper:
  - The most relevant characteristics of our initial identification model.
  - Key app design and implementation details.
  - Demonstration scenarios.
  - Several areas of future work to improve upon the initial model.

## App Architecture



## Identification and Notification Process



## BullyBlocker Design

- Cyberbullying risk factors:
  - Warning signs:** quantifiable measures like the number of insulting posts or the number of offensive comments in a picture.
  - States of vulnerability:** circumstances that could increase the probability of experiencing cyberbullying such as the minor's age or gender.
- BullyBlocker identifies the risk factors by:
  - Analyzing the **interaction** of a minor with his/her network (wall posts, picture comments, and messages).
  - Obtaining information from the minor's Facebook **profile** (address, schools).
- The app computes the **Bullying Rank** based on the identified warning signs and states of vulnerability.
- And shows the Bullying Rank and several key aggregated measures (# of wall insults, # of insults in photo comments).
- The app generates a set of **anti-bullying resources** to learn about ways to deal with cyberbullying.

## Publications

- Y. N. Silva, C. Rich, J. Chon, L. M. Tsosie. *BullyBlocker: An App to Identify Cyberbullying in Facebook*. The 2016 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM), San Francisco, CA, USA, 2016.
- Y. N. Silva, C. Rich, D. Hall. *Towards the Identification of Cyberbullying in Social Networking Sites*. The 2016 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM), San Francisco, CA, USA, 2016.
- L. M. Tsosie, Y. N. Silva. *Facebully: Towards the Identification of Cyberbullying in Facebook*. The Grace Hopper Celebration of Women in Computing (GHC), Minnesota, USA, 2013.

