

BullyBlocker

Interdisciplinary Models to Identify and Understand Cyberbullying

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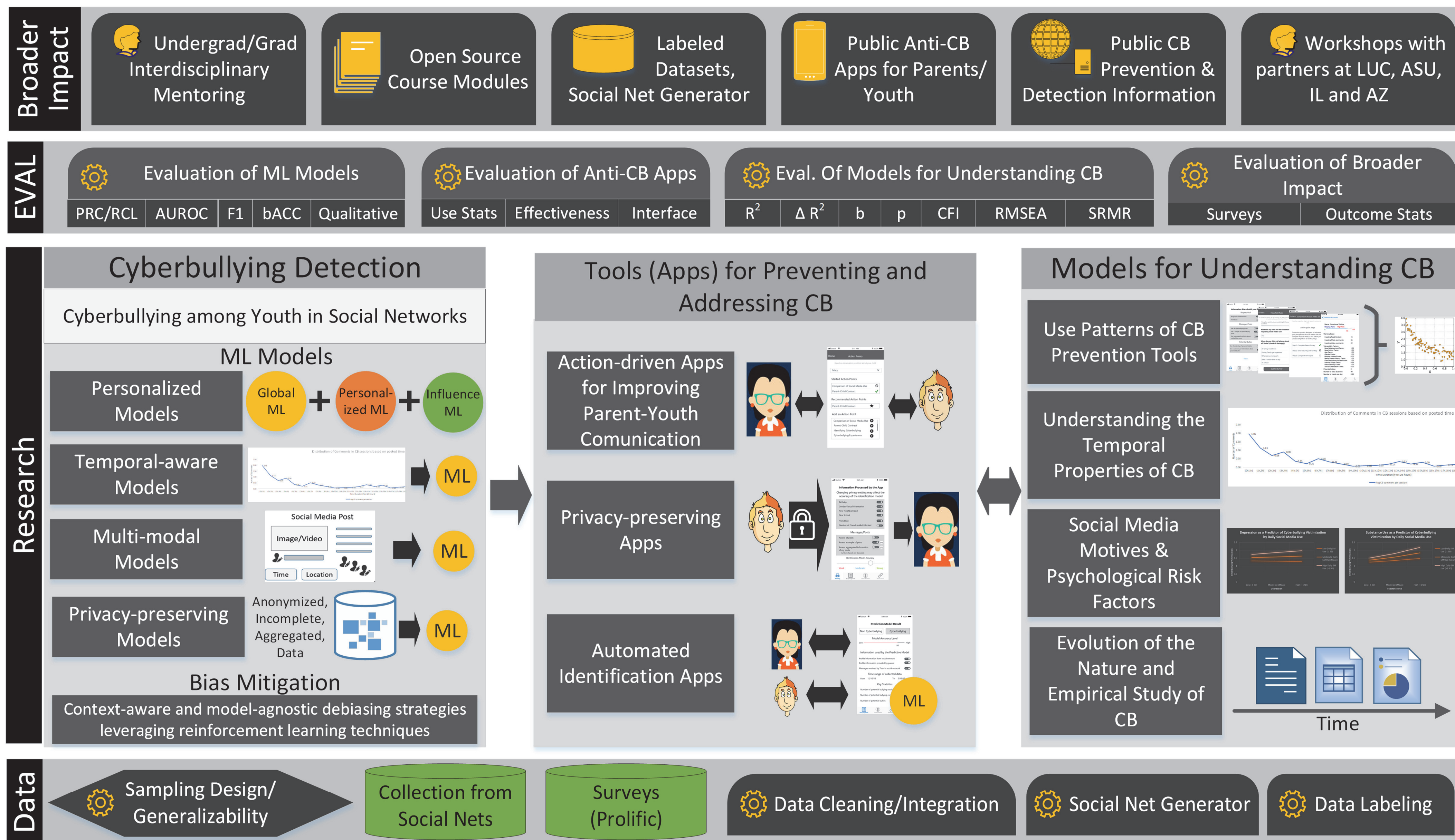
The Problem

- Cyberbullying is the most common online risk for adolescents
- More than half of young people do not tell their parents when it occurs
- Few studies have focused on automated models for prevention and identification
- Most of the previous work has not explored how advances in CS and psychology can be synergistically integrated

Goals

- Develop models and apps to prevent and identify instances of cyberbullying in social networks integrating key results in psychology about the nature of cyberbullying
- Study key aspects of the nature of cyberbullying and the adoption of automated anti-bullying tools guided by psychology theory
- Provide graduate and undergraduate students with the scientific scaffolding to develop into recognized interdisciplinary scholars

Innovations and Contributions



Impact – Science & Society

- Addresses a problem of high societal relevance
- Improves the understanding of how cyberbullying can be automatically identified (while reducing bias)
- Produces apps to identify and prevent cyberbullying
- Shares research resources such as labeled datasets and data generators
- A model of interdisciplinary research
- Applicability to other behavioral conditions (depression and suicide)

Impact – Education & Outreach

- Provides unique interdisciplinary training to undergraduate and graduate students
- Raising awareness of cyberbullying and anti-bullying tools engaging with policy makers and through varied media coverage on TV, web, etc.
- PIs are developing a course on Social Data Analysis and plan to modify other computing and psychology courses to integrate the study of social networks and social interactions

Impact – The Numbers (Since 2021)

- 8 papers accepted in top conferences and journals in computer science and psychology (e.g., SIGIR, ICWSM, ACL-IJCNLP, IJBP, ACM/IMS TDS, The Web Conf., IEEE Internet Computing)
- 6 peer-reviewed posters and 4 student-led poster presentations
- 17 graduate/undergraduate students (5 under REU) and 1 post-doc supported
- 78% (7 of 9) of CS students and 60% (3 of 5) of REU students are women or underrepresented minorities

