## CONVERSATIONAL AGENTS TO ADDRESS ABUSIVE ONLINE BEHAVIORS

Chatbots for Cyberbullies

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PROBLEM DESCRIPTION

## What to do with cyberbullying?

Abusive online behaviors occur at a large scale, on all social media, and have dire consequences for their victims. Most interventions focus on victim support. We must do more to address abusers. **Technical solutions remain limited to detecting and hiding abusive comments**, blocking abusers, or replying autimatically with a single message. **The potential of chatbots is unexplored**.



Multidisciplinary research is needed to design and evaluate effective dialogues. It requires psychologists and social scientists, not only computer scientists. We want to develop a framework that supports such research. We propose 3 initial approaches:

**Educate** - The dialogues can encourage healthier social skills, introspection of personal issues or insecurities, empathy for the victim, or higher social intelligence.

**Deter** - The dialogues can explain the legal consequences of harassment and hate speech.

**Keep busy** - While abusers talk to chatbots, they are not abusing others.

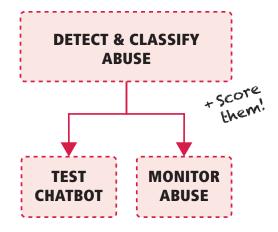
## **How to understand abusers?**

**Social learning theory** - By witnessing abusive peers, abusers acquire mental models where aggression is rewarding.

**Coercion theory** - If escalating pressure on peers is successful, abuses are deemed rewarding.

**Cognitive behavioral theory** - Assumptions and interpretations associated with life events are the primary determinants of abusers' behaviors.

**Attribution theory** - Abusers' perception of hostility may be exaggerated, and lead abusers to respond aggressively.



## What can go wrong?

- -> Chatbots may add to abusers' motivation.
- -> Chatbots may worsen abuses (more frequent and intense).
- -> Abusers may build their own chatbots.
- -> Abusers may totally ignore chatbots.
- -> Chatbots may become abusive (target innocents, or learn & repeat abusive language when personalized).

