Chatroom Safety

Protecting children against child predators

Motivation

In online chatrooms a person can take any identity he/she wants. There is no check on the correctness of age and gender in the profile of a user.
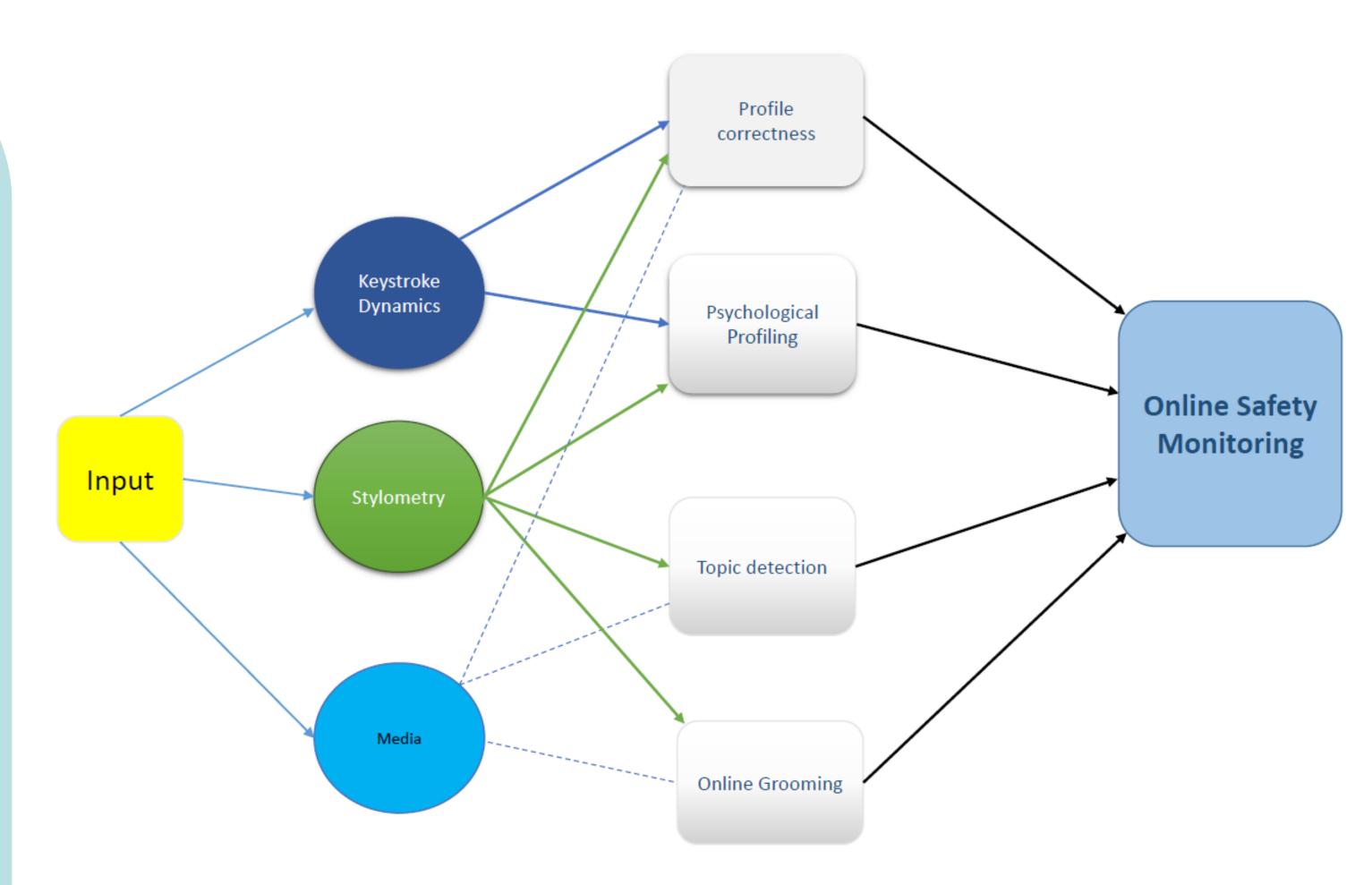
Child predators might change gender and age information with the goal of getting in contact with young children for malicious purposes.

"On the Internet, nobody knows you're a dog."

In this project we want to create a safer online environment by developing tools for automatic detection of pedophiles in chatrooms.
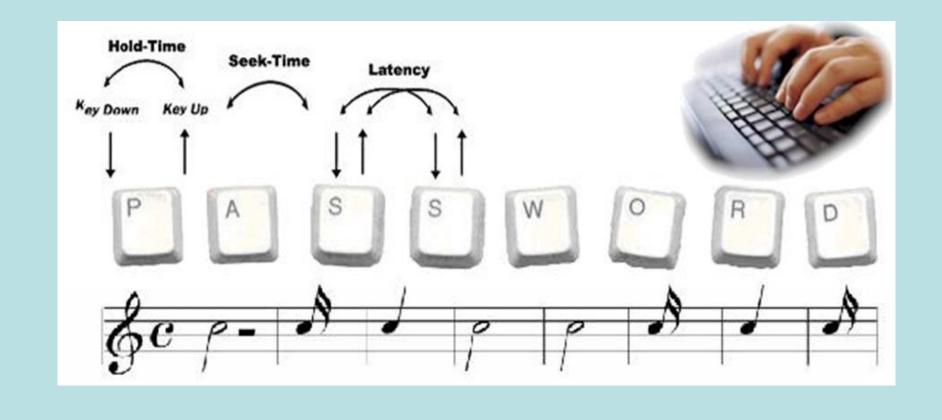

Research Questions

- Can the characteristics of a user be determined based on his or her behaviour in a chatroom?
  - Age / gender correctness with profile

- Can we detect the topic of a conversation in a chatroom?
  - Sexual nature of the conversation

- Can we detect cyber-grooming in a chat conversation?
  - Detecting sexual harassment in a sequence of messages in the conversation

- How can we combine the results of the above RQs to find pedophiles in a chatroom?
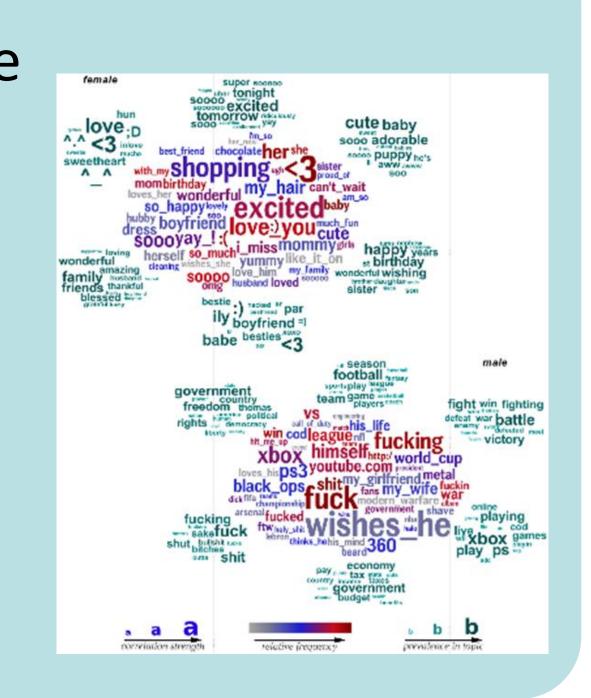 - Online Safety Monitoring

Keystroke Dynamics

- Determining gender and age based on how a person types on a keyboard
  - Duration
  - Latency

Stylometry

- Stylometry is based on the assumption that each individual has a unique writing style

- Author profiling of age, gender, and emotional state

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