

## Identifying Characteristics of Parental Control Apps

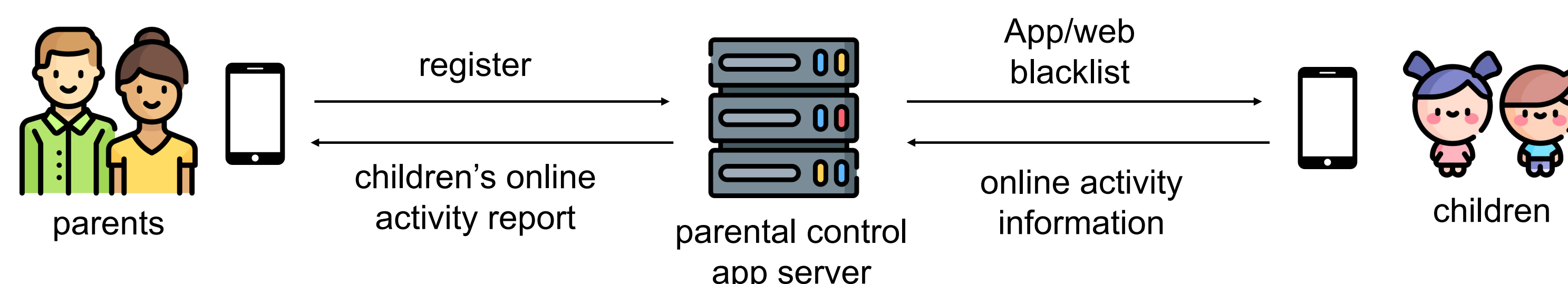
Seungyeon Paik

### MOTIVATIONS

- This research focuses on identifying, examining, and analyzing the characteristics and permissions of mobile parental control apps, as well as investigating the methods to search parental control apps.
- This research will provide valuable insights into the parental control app market and help us identify trends and patterns in parental control app usage.
- This research contribute to the development of more effective and secure parental control apps that can help safeguard children's online activities.

### WHAT ARE PARENTAL CONTROL APPS?

- Parental control apps: software application that enable parents to monitor and manage their childrens' online activities
- Provided functions: content filtering, screen time management, location tracking, remote device locking
- Parental control apps help parent protect their children online, set good screen time habits, and keep track of children's digital life.



### METHODS

We analyze the search process and characteristics of the parent control app using technical methods such as machine learning and natural language processing.

#### App Scraping API

- google-play-scraper : APIs for crawl the Google Play Store for Python without any external dependencies
- Serpapi : Real-time API to access Google search results

#### Search Terms

We found basic research terms by referring to previous studies. Based on these terms, we found related terms using the “suggest” method of the google-play-scraper API.

[parental controls, child monitoring, online safety, family safety, child safety, child online safety, parental monitoring, family safety plan, screentime for kids, child safety kit]

#### Similar Apps

We extracted similar apps for each search terms using “similar” method of google-play-scraper. Among the 7761 apps collected, 101 apps including keywords related to parental control in their description were extracted.

#### Collected Data

App name, App description, App permission, Controlled functions

### EARLY RESULTS

#### Permission

- Apps requesting permission to Photos/Media/Files on mobile phones were the most common, followed by Storage access rights and Wi-fi connection information.

#### Category

- Apps in the parenting category were the most common, followed by Lifestyle and tools.

- Apps in the three categories of parenting, lifestyle, and tools accounted for 72% of the total.

