Background

Although smartphones have stretched the boundaries of socializing, they can be a distraction in co-located social interactions.

Research Objectives

- Improving the quality of co-located social interactions by encouraging smartphone usage limitation
- Lock n' LoL - an app which helps users to collaboratively manage their smartphone usage by providing synchronous social awareness

Lock n' LoL

Lock n' LoL: Mitigating Smartphone Disturbance in Co-located Social Interactions

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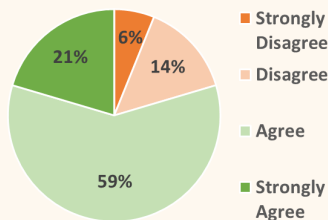**Uichin Lee, Seungwoo Choi, Sungho Jo, and Min H. Kim**   **@ KAIST**

Preliminary Studies

Online Survey (N=49)

Interview (N=7)

Q. I was disturbed by smartphones while socializing.

- 6% Strongly Disagree
- 14% Disagree
- 59% Agree
- 21% Strongly Agree

Q. When do smartphones disturb socializing?

"I unconsciously check personal message **notifications**…" (P2)

"I **habitually** use the smartphone to resolve for awkward silences and idleness." (P5)

Q. When are smartphones good for socializing?

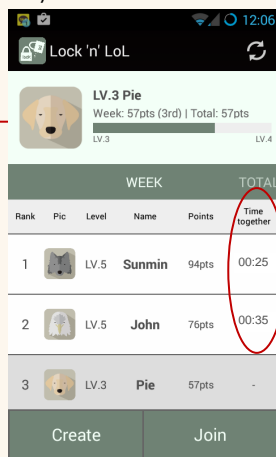"…to **search** for recent fashion trends and go online shopping with friends." (P3)

"…I play smartphone **games** with my friends to get along." (P7)

Lock n' LoL Design

Iterative Prototyping Process

Points & Level
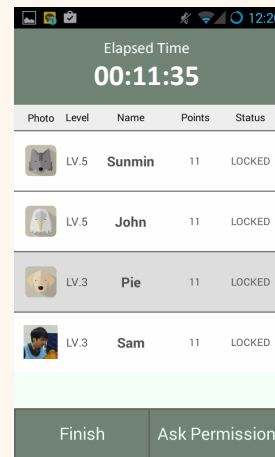Analyze your socializing activities and stay motivated

Time Together

See how much time the user spent with each of his/her friends

Socializing Mode
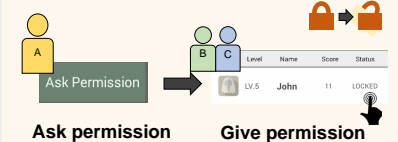Locking phones to limit usage together

- Externally cued noti. → Silent mode
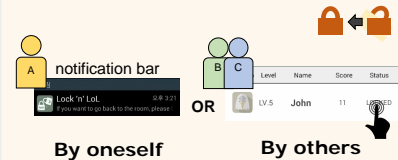- Habitually usage → Locking screens

Temporary Use Mode
Asking/permitting to use temporary

To start the temporary use mode

Ask permission   **Give permission**

To stop the temporary use mode

By oneself   **By others**

Pilot Study

Interviews (N=20)

Contexts of Use

- Eating with friends
- Meeting in a small group
- Chatting at a cafe

"I used this app so that I won't be distracted by my smartphone while studying for the final exams…"

Socializing Mode

The benefits of limiting smartphones were greater than its inconveniences while socializing.

"…we had initially locked the phone for a better time together."

Temporary Use Mode

Coped with inconveniences from completely locking smartphones during social interactions

"I was able to bring interesting topics into the conversation while other phones stayed locked."

Future Work

- **Synchronous awareness** by sharing detailed usage information (e.g., app usage in the temporary use mode)
- **Current status visualization**
- **Excusable app usage** for apps that do not disrupt co-located social interactions (e.g., camera, dictionary)
  – Users may decide which apps to excuse / Automatic recommendation based on logged usage data