

# Youth Understandings of Online Privacy and Security

*A dyadic study of children and their parents*

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# Disclaimer

- The National Institute of Standards and Technology Institutional Review Board reviewed and approved the protocol for this project and all subjects provided informed consent in accordance with 15 CFR 27, the Common Rule for the Protection of Human Subjects.
- Certain commercial entities, equipment, or materials may be identified in this document in order to describe an experimental procedure or concept adequately.
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- All photos in this presentation are for illustration purpose only. They are not pictures of participants in the study.

# Youth and Online Privacy and Security (OPS)



## “Digital by Default”

- Digital footprints that begin before birth
- Exposure to the internet is happening at increasingly younger ages
- “Right now” culture – everything at their fingertips



## Multifaceted Usership

- Many youth are digitally connected nearly constantly
- Use is both for entertainment as well as work/school
- Youth face a rapidly digitizing workplace

# Parents: 1<sup>st</sup> external contact in children's tech exposure



# Research Questions

## RQ1

What are youth's descriptions of online privacy and online security, and how do they understand these terms?



## RQ2

How do parents view the role of online privacy and online security in their children's lives?

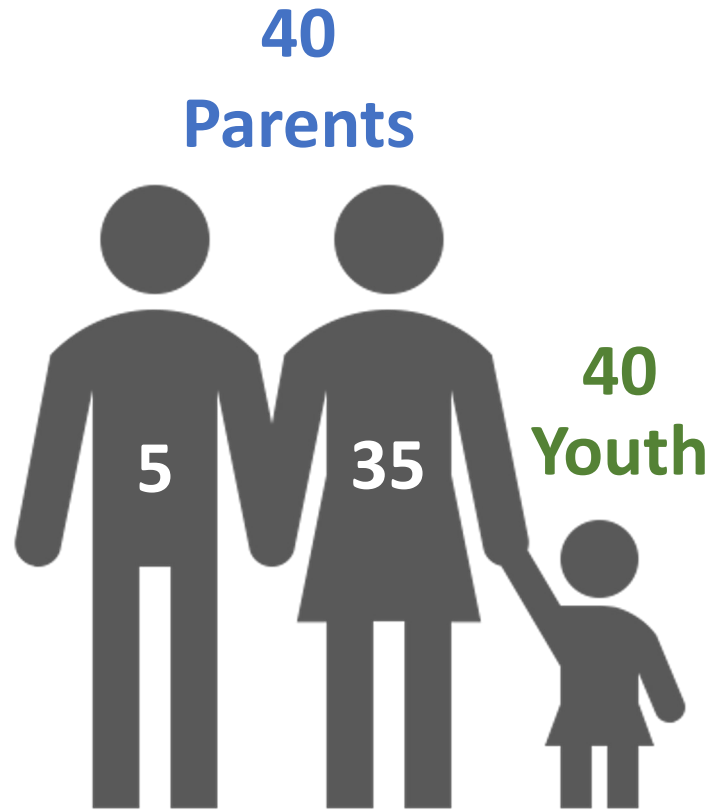


## RQ3

How, if at all, do parents influence children's online privacy and online security understandings?



# Participants



- 21 identified as male
- 19 identified as female
- 4 per US grade from 3<sup>rd</sup> - 12<sup>th</sup> grade
  - 12 pairs—Elementary School (ES)
  - 12 pairs—Middle School (MS)
  - 16 pairs—High School (HS)

# Data Collection Process

## Pre-Interview Questionnaire (~5min)



- Demographics, technology use, and OPS term definitions
- Designed to support the interviews

## 1:1 Interview (~30 min)



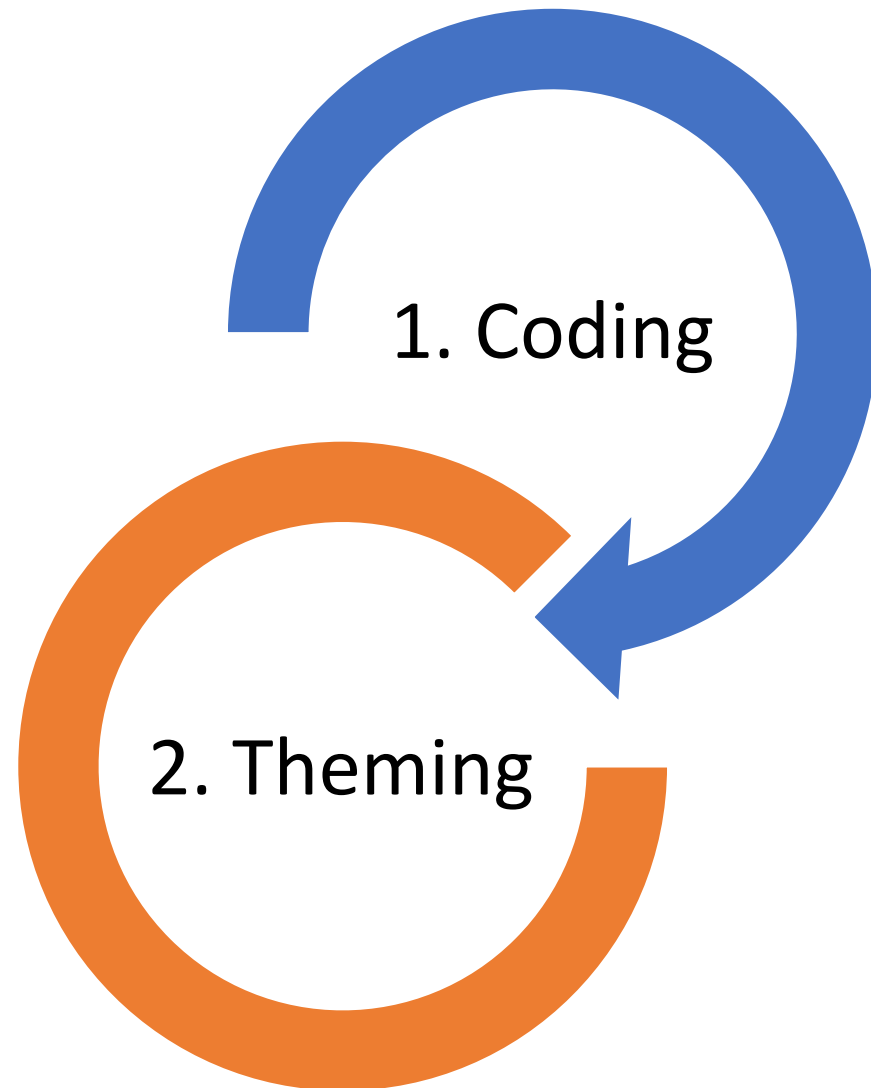
- Semi-structured in nature
- Youth interviews address OPS knowledge and behavior
- Parent interviews address own knowledge and child knowledge

## Post-Interview Open Response (~1 min)



- Upon conclusion of the interview process
- Designed to allow participants to leave any final comments

# Qualitative Data Analysis



- Initial Code Deck – inductive and deductive coding, random selection of 9 dyad transcripts, 84 first-cycle codes
- Refine Code Deck – team discussion
- Individual participants
- Participants within groups (youth; parents)
- Participants across groups (youth vs parents)
- Individual dyads
- Cross-dyad



# What do Youth Know about OPS?

## Online Privacy

- Protecting personal information
- Contextually based
- MS & HS position privacy as agentive
- Trust and feelings of security – important

**Requires Maintenance**

## Online Security

- A series of choices: “set it and forget it”
- Evidence of good practice: no consequence
- Younger youth rely on parents; older youth on themselves

**Requires Choices**

## Collective Understandings

- Understandings of consequences: Virtual (HS) vs In-Person (ES, MS)
- OPS is agentive
- Privacy and security are related but distinct

**Outsiders are Biggest Threat**

# Parent Understandings of OPS for Youth



## Concerned about Consequences

- OPS important for youth
- Parents' worries & concerns:
  - ES:** inappropriate content
  - MS:** mental health
  - HS:** long-term consequences like reputation



## Roots of Carelessness

- Youth are unconcerned & make mistakes.
- **ES & MS** parents thought kids were too young
  - **HS** parents thought kids were more impulsive



## Good Kid Syndrome

- Double consciousness
- *"Many teenagers [connect] with people on social media that they don't know personally ... [but my kid is] one of the good ones...a level-headed kid"* (P27HS)

# Parental Influence on Youth OPS



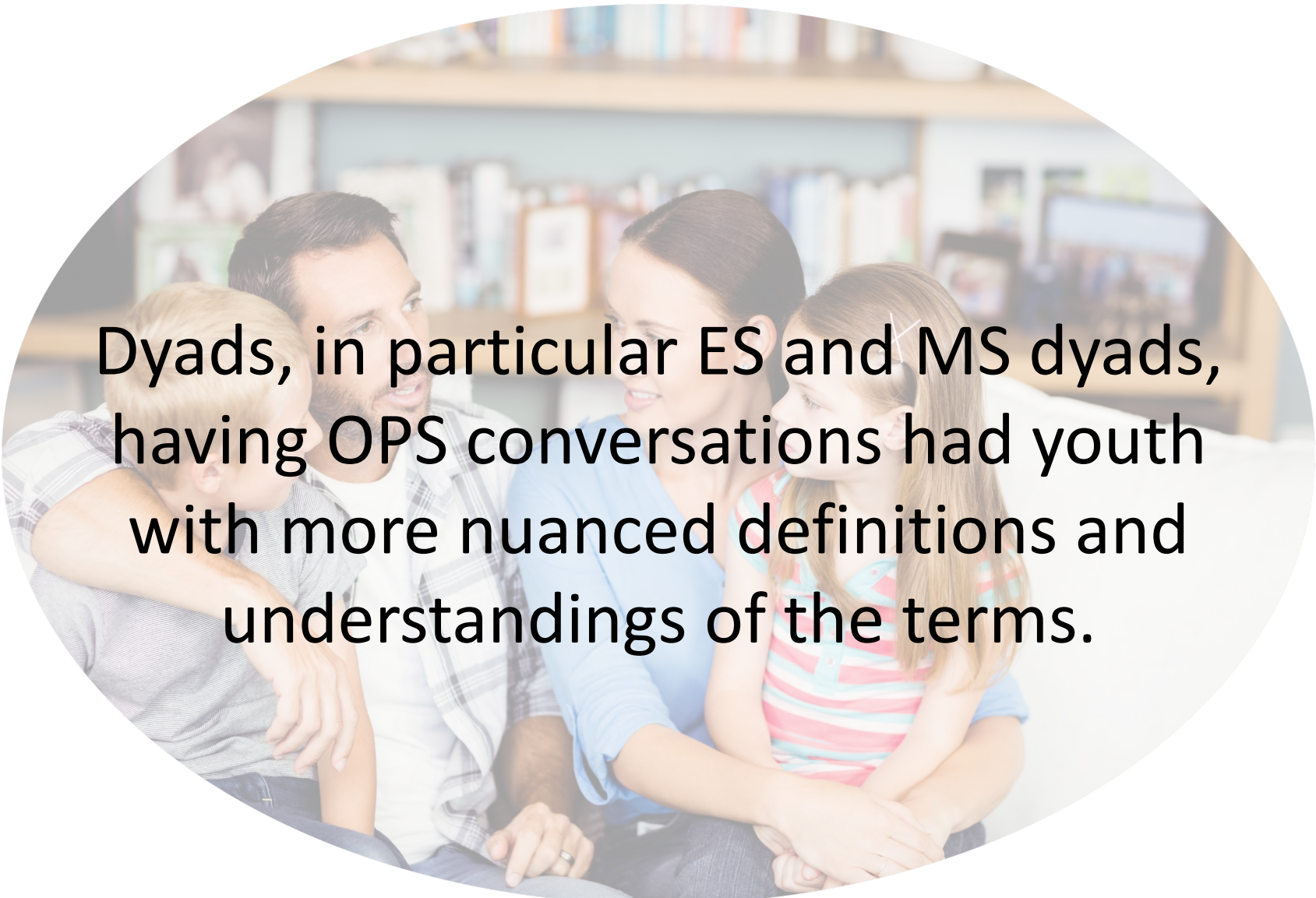
Parental device monitoring decreases as youth age increases

No clear patterns between amount or type of device monitoring and level of youth's OPS knowledge




Conversations about OPS choices were primarily reactionary and consequence-driven

# The Power of Conversations



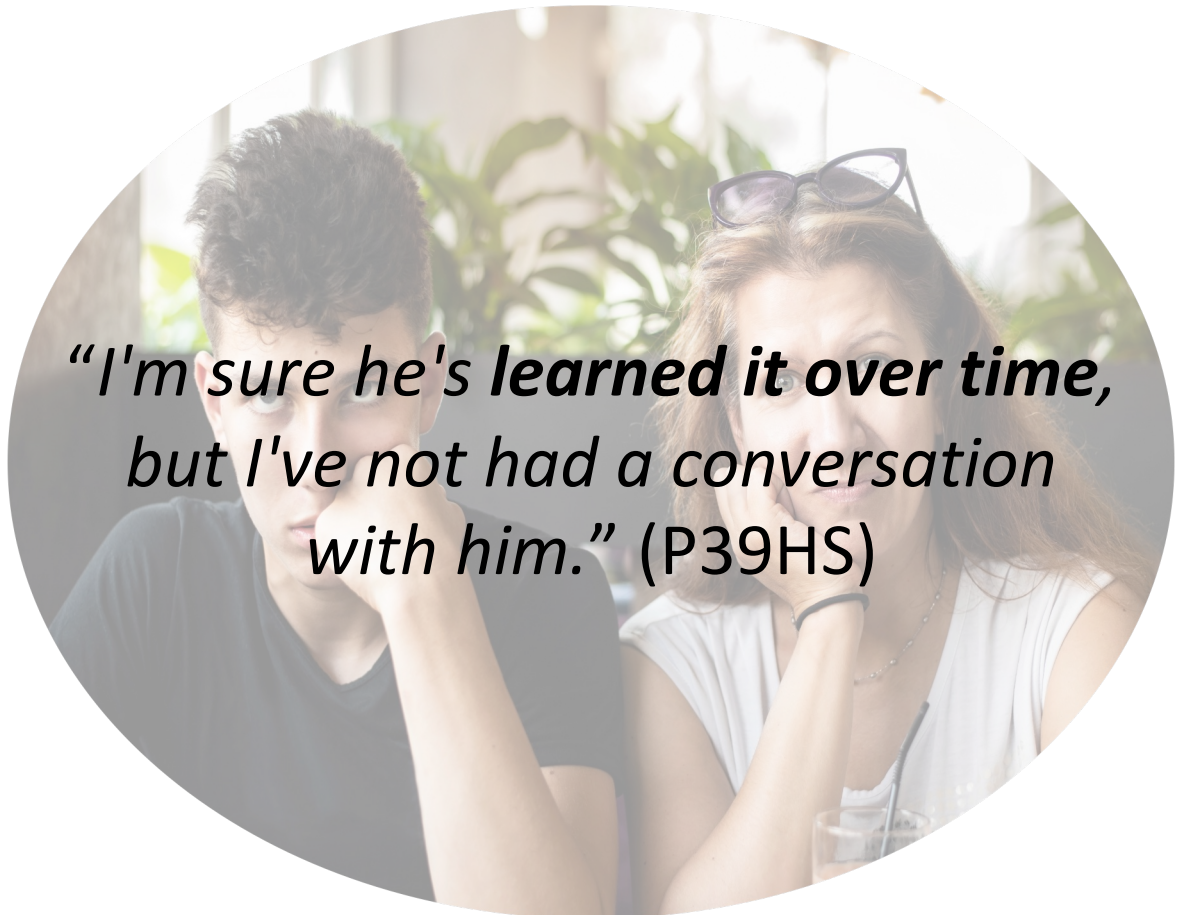
Dyads, in particular ES and MS dyads, having OPS conversations had youth with more nuanced definitions and understandings of the terms.

# When is the right time?



*“[We’ve had a] small amount [of conversations] due to age ...but as she **gets older and more independent**, of course, you need to have those **conversations.**” (P10ES)*

**VS**



*“I’m sure he’s **learned it over time**, but I’ve not had a conversation with him.” (P39HS)*

# Conclusions

- Parents underestimate youth OPS knowledge and capacity -> monitor rather than discuss OPS with their children
- Youth view OPS as agentic and contextual, and are ready for conversations at young ages
- Parental conversations about OPS either as a primary strategy or in conjunction with monitoring -> strong approach to foster youth OPS knowledge

# Next Steps

- Parents need support in re-framing their assumptions on youth OPS knowledge
- Parents to have conversations with their kids as early as device use is allowed
- Tool providers to create educational support tools for both parents and youth
- Longitudinal, dyadic research into the kinds of parental conversations that best support youth OPS knowledge and behavior at various developmental stages

# THANK YOU

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Summary Video

Williams, O., Choong, Y. Y., & Buchanan, K. (2023).

Youth understandings of online privacy and security: A dyadic study of children and their parents. In Nineteenth Symposium on Usable Privacy and Security (SOUPS 2023), pp. 399-416.

Williams, O., Buchanan, K., & Choong, Y. Y. (2023).

'They're Not Risky' vs 'It Can Ruin Your Whole Life': How Parent-Child Dyads Differ in their Understandings of Online Risk. In *International Conference on Human-Computer Interaction (HCI)*, pp. 529-547.