Meeting Them Where They Are: Designing an App for Early Adolescents’ Healthy Social Media Use
Co-sponsored by Computer Science

Presented by Linda Charmaraman, Ph.D.
Catherine Delcourt, Ph.D.
Ashley Kim ’19, Cynthia Serrano Najera ’21, and Payton Vandergriff ’21

October 3 \ 1:00 - 2:00 p.m.
Room 413, Lulu

More: wcwonline.org/calendar
Accessibility and Disability Resources: accessibility@wellesley.edu
Who are we?

Youth, Media, & Wellbeing Research Lab

Computer Science Department

Dr. Linda Charmaraman (WCW)
Dr. Catherine Delcourt (CS)
Ashley Kim ‘19 (MAS)
Cynthia Serrano Najera ‘21 (CS)
Payton Vandergriff ‘22 (MAS)
How did this all begin?

NIH-funded study on social media at WCW
700+ middle school students, 200+ parents

Community connections
Enthusiastic school partner takes a leap of faith

Guest lecture from dana boyd
Complementary research aims between WCW and CS

Thank you to I Am Strong Foundation!
Pilot grant to begin our collaboration in the field...

Social Media Awareness App Workshop Pilot Year ’19

Goals:
❖ To provide digital tools to explore and improve personal and community wellbeing online
❖ To produce content for future lessons on healthier social media use – an app, website, in-person workshop, game, etc.
❖ To promote interest in computing, make new friends, make the world a better place, and to have fun!

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Pilot grant to begin our collaboration in the field...
App Prototype

- Cross-platform?
- Authentication?
- Data storage?
- Engineering resources?
Nothing is impossible. The word itself says “I’m Possible!”

-Audrey Hepburn
How did you learn about social media (what to do and not do)?

- Religious leader: 3
- Coach/Afterschool staff: 6
- Doctor/nurse/therapist: 9
- TV commercial/ad: 11
- Older relative: 12
- Website/Youtube: 20
- Teachers/School Staff: 28
- Siblings/Cousins: 37
- Friends: 48
- Parent: 58
Timeline

**Spring**
- **Students and Parents**
  - Surveys, Interviews

**June**
- **Staff**
  - Surveys, Focus Group
  - **AERA Conference:**
    - Teacher Beliefs About Social Technologies Within and Beyond Middle School Classrooms

**July**
- **Workshop**
  - PhotoVoice, Participatory Design

**September**
- **CHI Paper Submission**
  - Meeting Them Where They Are: Prototyping an App for Early Adolescents’ Healthy Social Media Use
Pre-workshop Setup

- Support from principal and school facilities
- Focus groups with school counselors and STEM teachers
- Obtained parental consent, media releases
- Planned curriculum and evaluation plan
Student experiences

How would you feel if you lost access to internet or social media for one day?
I wouldn’t really mind. If it were YouTube I would be really upset
How about one week?
I would probably be a little upset.
How about two weeks?
I would be more upset. Probably be really upset because I can’t talk to my friends.

What if you lost it for 2 weeks?
I’d probably go crazy.
[Laugh] Yeah, how difficult is it to imagine a life without internet for 2 weeks?
Honestly tough because you basically need it for everything, like just to even call someone, just like see time—well, no, there’s clocks.

Okay. How would you feel if you lost access to internet/social media sites for one day?
I wouldn’t really be mad, but the thing is, my streaks... I just always lose them.
What about longer, like one week or 2 weeks?
I wouldn’t really be mad, as long as I have people to talk to, I’m good.

How would you feel if you lost access to internet/social media for one day?
Upset because I can’t even last an hour.
How about one week?
No. couldn’t do it.
Staff experiences

Use of Google Apps
“Students often complete essays on Google documents, or projects on Google technologies. As an instructor I am able to be a "manager" so I can view student work at every step of the process...”

Communicating
“Skyping an author in Malawi”
“Blog/Skype partnership with a class in California”

Distractions
“Students aren’t always doing their work on their chromebooks they have to be reminded to stay off other sites and focus”

Difficult to Monitor
“not being able to apply consequences to students who misuse computers by removing their computer privileges has made it difficult to enforce rules.”
Pre-workshop setup

01. FOMO & Screen Addiction
   - How long can you go without your phone?
   - Take a social media break
   - How does the Internet work?
   - Paper Prototyping

02. Mental Wellbeing, Online Triggers & Social Support
   - What does depression or social isolation feel, look, or act like?
   - Discussion of online video watching
   - InVision Prototyping

03. Personal Profiles, Identity & Social Change
   - Health and wellbeing (sleep)
   - Privacy discussion
   - Social System Prototyping

04. Putting it all together!
   - Intro to web development
   - Project pitch
   - Final videos
PhotoVoice

- **PhotoVoice** is a research method that enables people to define for themselves and others, including policy makers, what is worth remembering and what needs to be changed.

- Taking photographs or videos of familiar scenes and people can change participants’ perceptions about their social and physical environment.

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**What is PhotoVoice?**

Photovoice is a process by which people can identify, represent, and enhance their community through a specific photographic technique.

1. To enable people to record and reflect their community strengths and concerns.
2. To promote critical dialogue and knowledge about important issues through large and small group discussions of photographs.
3. To reach policy makers and encourage the adoption of health promoting policies.

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What we see here is a regular cigar wrapper on the ground by a boat loading dock in one of our lake communities right here in Ringwood. In a simple community it goes by as just garbage but in another light this is a sign of a blunt that was just freshly smoked on that landing dock. Surrounded by homes and others going unnoticed there is drug use right outside their door and more frequently than acknowledged.

Maybe just by being more aware and opening our eyes to what is really going on we may be able to prevent things from getting out of hand.

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What we see here is just a pair of shoes hanging from the power lines.

To most it seems like it was just some kids fooling around throwing shoes up there but in reality in a town that has had a rising drug issue, it may be a selling spot. In certain areas that is a clear sign that "Drugs Can Be Bought Here" but for a quiet town it looks like an innocent act. Going behind a few of the buildings in popular shopping areas you can see more of these shoes hanging and that seems to be a sign that the tradition may be growing.
Day 1 Photovoice Challenge: FOMO

→ What do you see in the following photos?
→ How are they a mirror into your own life?
→ How are they a window into someone else’s life?
→ How is it related to FOMO?

When we are not using technology we can hang out with friends and family. We can be more connected
This is me at my aunts farm in Brazil. My aunt has a lot of dogs and one of her dogs had puppies. This is one of them, Popcorn!

This is me and my friend, Rafaela. She is also Brazilian. We went skiing together and I had a lot of fun!

JOMO
JOY OF MISSING OUT.
Photovoice Day 2

In what ways can you provide social support or boost someone’s wellbeing on social media?
In what ways can you provide social support or boost someone’s wellbeing on social media?
Photovoice
Day 3

How will you make a positive difference in this world?

After recycling a water bottle
- Happy Squirrel | Make a...

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Try not to use plastic straws cause they find their way into the ocean and can hurt marine life
Prototyping
Prototyping & Participatory Design

End-users are involved in the technology design process.
Iterative process increasing sophistication every time.
Paper Prototyping Examples

- Times Up
- Get a gift every time you use your phone
- Chat convo
  - I am sad
  - I love you
  - I think

Wellesley Centers for Women
InVision prototypes

Everybody has anger! Sometimes it gets out of control! But you have to stay calm! And let it out on something that can't get hurt!
Profile Builder prototypes

Profile Preview

Profile Builder Toolbar
Usability comparison of prototypes

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Video Consumption Patterns
Why Study Youth Video Consumption Patterns?

- Summer at Emerging Platforms team
  - Increased access to digital devices, platforms, and social media sites among early adolescents
  - On-device (video-watching) experience: individual or group/collective/shared?
  - Depends on: Content? Device? Family and/or school culture? Friend groups? Age?

- In-class PollEverywhere: 11 students participated in the interactive poll session.
  - Time spent online, choice of platform, with whom they watch with, feelings and motivations.
In-Class Polls #1

How much time do you spend watching videos online everyday?

- Between 0-30mins: 9%
- About an hour: 9%
- About 2 hours: 18%
- About 3 hours: 9%
- More than 3 hours: 55%
In-Class Polls #2

What device do you use to view videos?

- Smartphone: 55%
- Laptop: 9%
- Desktop: 9%
- TV: 27%
- Tablet: 9%
In-Class Polls #3

Where do you watch online videos? Order them from most to least.

- At home, in my room: 1st
- At home, in a family room (living room, kitchen...): 2nd
- At school: 3rd
In-Class Polls #4

Who do you watch online videos with? Order them from most to least.

- By myself: 1st
- With friends: 2nd
- With family: 3rd
In-Class Polls #5

Do you talk about what you watch with friends and family?

- Yes: 73%
- No: 27%

Do your friends and family know what you watch?

- Yes: 82%
- No: 18%
Word Clouds

What is your main motivation for watching videos online?
Describe your feelings when you watch online videos...
Questions to Explore

● Boredom & Guilt → **sense of time** among teenagers?
  ○ 55% of students watch videos 3+ hours daily.

● Role of family: Use of smartphones / digital devices at home
  ○ Watching alone (1st), With friends (2nd), With family (3rd).
  ○ “At home in my room” (1st)
  ○ Different content / shows depending on whom students watch with.
  ○ Teenagers: “It's the last time that a whole population is entering a new social group all at once.”
    - McCulloh, *Because Internet*

● Hard to distinguish what is “video” content today
  ○ → What do we count as strictly “videos” vs. “social media” embedded video content?
  ○ Streaming: Netflix, YouTube, HBO, Hulu (VS.)
  ○ Social media platforms like Facebook, Instagram, Snapchat, TikTok, etc
Outcomes
Outcomes

“I learned that most kids are addicted to their phones and there are ways to like stop being addicted.”

“I learned about fear of missing out and how to not be alone.”

“I learned that a lot of people will treat people different, but even though they are different we are all the same.”
Outcomes

Participants overall had a positive experience:

- 100% might use aspects of this workshop in class projects
- 90% would be interested in a follow-up workshop
- 80% would be likely to talk to their families about this workshop
Outcomes: Comparing prototyping techniques with middle school students
Outcomes: Insights for teachers to discuss social media with students.

Privacy
We found some confusion in what was meant by the public profile vs the private profile. Suggesting that their interpretation of a private profile is the one with the most minimal amount of information.

Role of parents/family
We saw that their family is a core part of who they identify with and how they identify themselves. Amongst the girls, 4/6 had a section devoted to listing their siblings.

STEM concepts
Students had knowledge about technical terminology (bits, code) and practical knowledge of utilizing web services (sending email, making slides, etc). But gaps in how these concepts relate.
Future directions
Future directions

- Looking for funding, school and community partners
- Test with different populations and communities (e.g., first generation, girls of color, etc.)
- Design and develop the App through an iterative process
- Develop curriculum for out-of-school time
- Process evaluation and feasibility to expand
- Create college student mentoring program with teens to develop STEM aspirations
Special thanks to Dr. Philip O. Coakley Middle School, Principal Fraczek, and the staff and families who trusted us with this pilot workshop.
Many thanks to our project coordinator Alyssa Gramajo, Sue Sours, Josie Ku, Anna Adachi-Mejia, I Am Strong Foundation, NIH, and Wellesley College summer internship programs.

Questions?

www.youthmediawellbeing.org

Follow us on Instagram! @youthmediawellbeing

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