Human Computer Interaction

September 29, 2020
Dr Danielle Lottridge

# Aim

- Show a range of human computer interaction industry research and academic research

industry research

what you need for good ideas

North stars for research to uncover
- evergreen engaging content
- daily habit
- immediate delight through mechanisms
- long-term attachment

Dozens and dozens of ideas explored
- Short DIY video editing platform
- Relationship advice
- AR messages in space
- Many many more...
- Livestreaming with
  - high interactivity: games, 360 room, local fame
- Livestreaming with video

Livestreaming
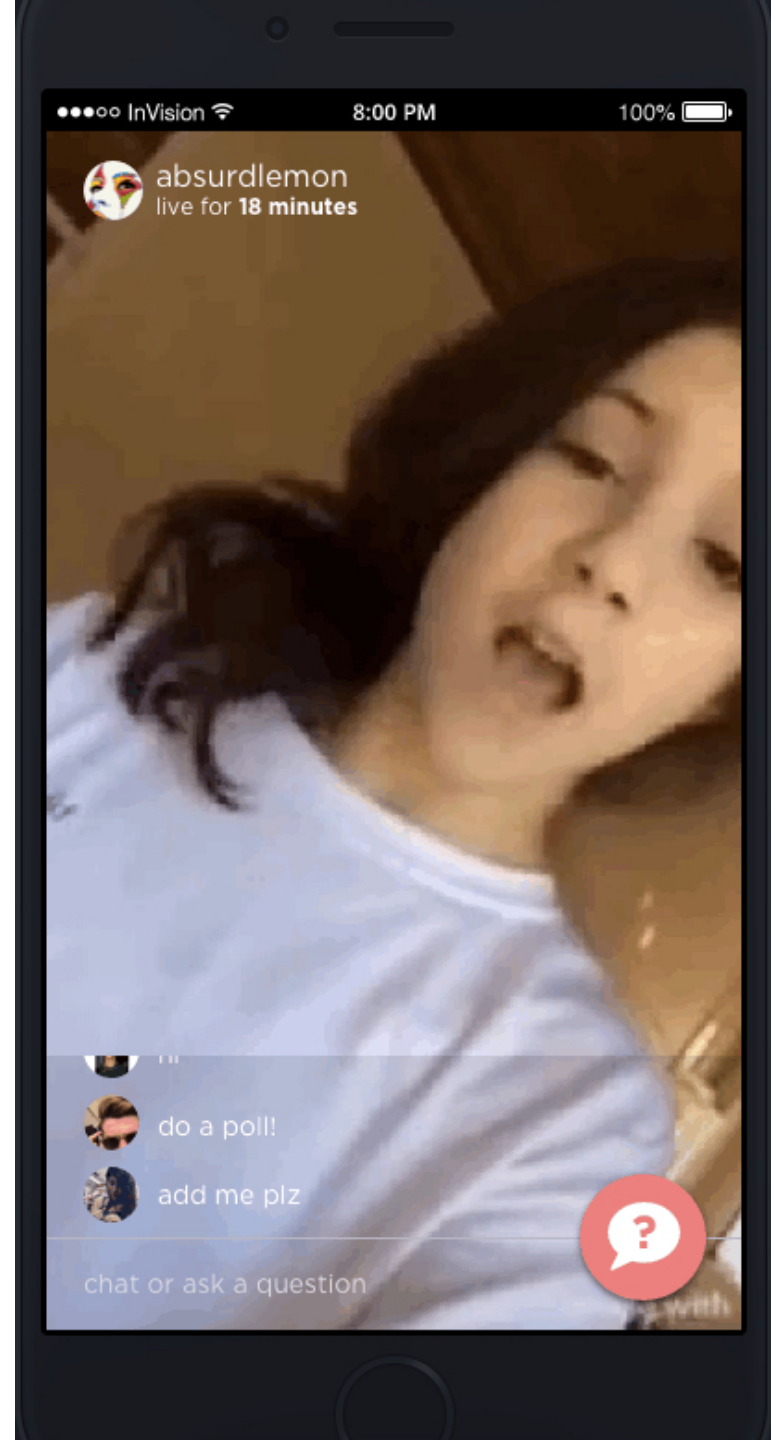
Why do teens livestream?

7990 survey responses

20 interviews with teens

Lottridge, D., Bentley, F., Wheeler, M., Lee, J., Cheung, J., Ong, K., & Rowley, C. (2017). Third-wave livestreaming: teens' long form selfie. In Proceedings of the 19th International Conference on Human-Computer Interaction with Mobile Devices and Services MobileHCI2017 (p. 20). ACM.

●○○○○ Verizon 🌐   3:31 PM   ▰

‹ hellofromtumblr   🔍 👤 Follow

www.research.net/r/TumblrLivestreamResearch
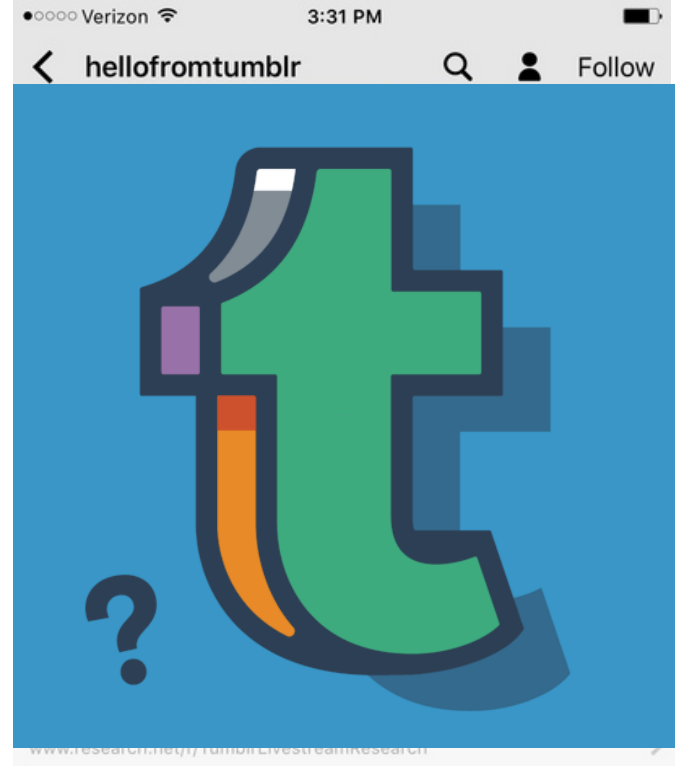
Do you livestream?

Whether you livestream yourself all the time, every so often, or basically never, we want to hear from you about it.

Take the survey

If you qualify*, you can earn a $5 gift card for filling it out. Mostly, though, you'll have our eternal gratitude for helping make Tumblr a better place.

*The survey is open to anyone 13 and older, but only U.S. residents are eligible for the gift card. And if you're a U.S. resident under 18, you'll need a parent or guardian to give their permission for you to receive the gift.
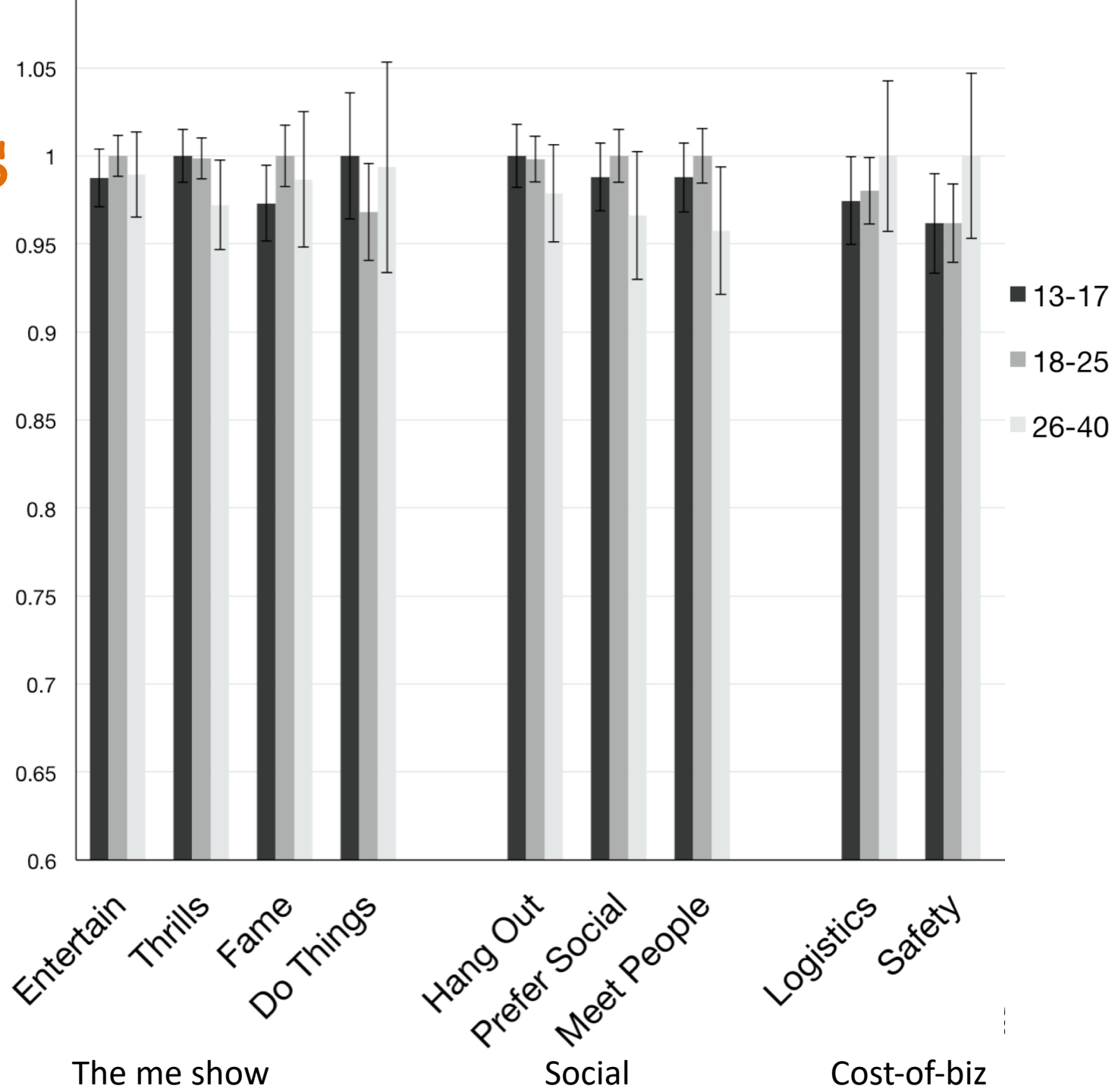
Source: hellofromtumblr

2,889 notes   ⤳ 💬 🔁 ♡

YAHOO!

	1	2	3	4	5	6	7	8	9	10
I feel like I'm hanging out with my friends.	0.74 LivestreamHangOut									
Connecting with my friends.	0.682									
Friends are taking time to watch and get to know me.	0.647									
Meeting friends of friends.	0.641 FriendsOfFriends									
I'd like my livestreams to connect me to friends of friends.	0.6									
If I can't hang out with my friends in person, I want to "hang out" through a livestreaming app.	0.599									
I want to make new friends through livestreaming.	0.486									
I "guested" a friend while livestreaming (i.e., you invited someone to livestream within your livestream).		0.775 Guesting								
I was "guested" on livestreaming by a friend (i.e., another streamer invited you to livestream within their livestream).		0.677								
I livestreamed because I was somewhere cool or doing something cool.		0.666								
I livestreamed with an audience.		0.635								
I had a plan of what to say (or do) for my livestream.		0.584								
I livestreamed because I got bored.			0.74 Bored & Lonely triggers							
I livestreamed because I got lonely.			0.711							
I started livestreaming but there was no audience so I stopped.			0.661							
I had trouble figuring out what to talk about when I livestreamed.			0.646							
I spontaneously talked about whatever came up.		0.522	0.598							
I asked my viewers for ideas what to talk about (or do).		0.499	0.532							
I livestreamed to talk to people I know.			0.507							
to talk about things my viewers care about.				0.728 Entertain&Please						
to entertain my viewers.				0.637						
to be someone my viewers want to watch.				0.637						
to share things about myself to help my viewers get to know me (e.g., I host a Q&A).				0.604						
I wish I had more people watching when I livestreamed.				0.551						
I only let people follow my livestream account if I know them personally.					0.78 KnowViewersPersonally					
If someone I don't know personally tries to follow my livestream account, I check out their account before accepting.					0.69					
When I livestream, I like to know everyone (personally) who is watching.					0.626					
I am comfortable with anyone watching me livestream.					-0.491					
to become famous.						0.782 WantFame				
Livestreaming gives me a moment of fame.						0.604				
to achieve things with my viewers (e.g., a like count).						0.602				
I livestreamed to get more followers.						0.56				
to put myself out there to make connections with influential people.						0.428				
It's exciting to be live.							0.664 LiveExcitingFeelings			
It makes me feel better.							0.634			
Having people interact with me through comments.							0.609			
I get closer with my audience.	0.42						0.461			
I prefer not to show my face online to anyone I don't know personally.								0.685 NoFaceNoName		
I prefer to use a nickname online rather than my real name.								0.681		
I feel nervous every time I livestream.								0.557		
I don't livestream as much as I want because I'm concerned about my online safety.				0.434				0.556		
to meet cool people.				0.411					0.584 WidenCoolS	
to find people to hang out with.									0.578	
Hanging out with friends is my favorite way to spend my time.										0.762
Watching a video with a friend is better than watching it alone.										0.723
I livestream when I think my friends will be free to watch.	0.466									
I'd like my livestreams to connect me to more people within my immediate communities (school, neighborhood, etc).										
Extraction Method: Principal Component Analysis.										

Factor analysis

Results

Teens and adults are similar.

	13-17
	18-25
	26-40

Categories (x-axis): Entertain, Thrills, Fame, Do Things, Hang Out, Prefer Social, Meet People, Logistics, Safety

Groups: The me show, Social, Cost-of-biz

Livestream personas

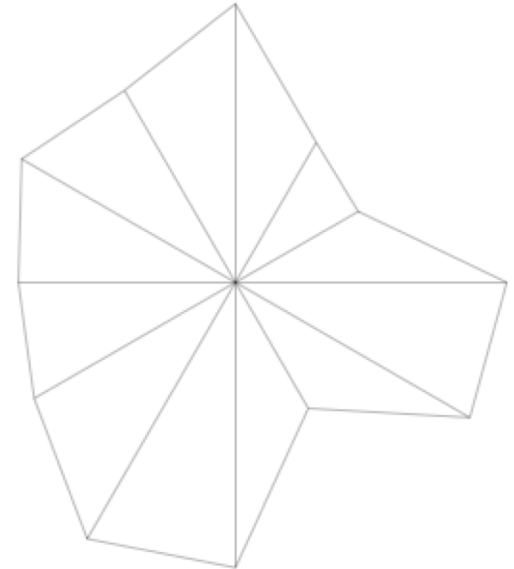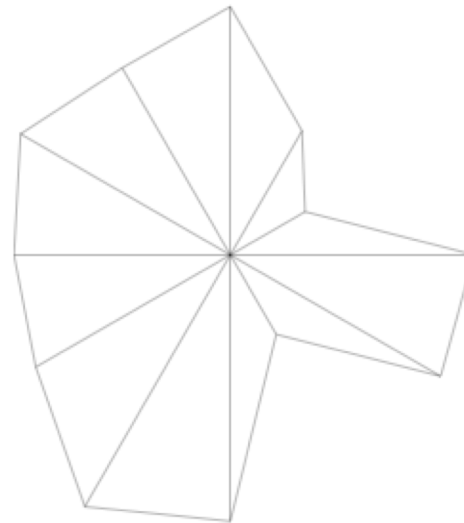# Livestreamers Cluster Star Graphs

Personas not supported
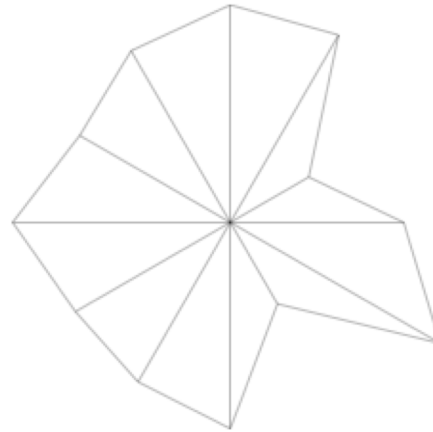
Group 1

Group 2

Group 3

Friends1
Entertain1   Safety1
Fame   FunTimes
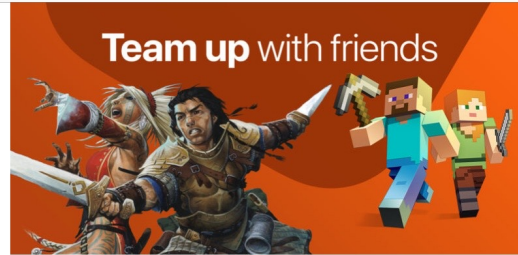Safety2   Meeters
KeepingUp   Friends2
Entertain2 Thrill Bored

Teens score higher on

1.spontaneity,
2.desire to know
audience, and
3.triggers of
loneliness and
boredom.

product pivot

Featured

Team up with friends
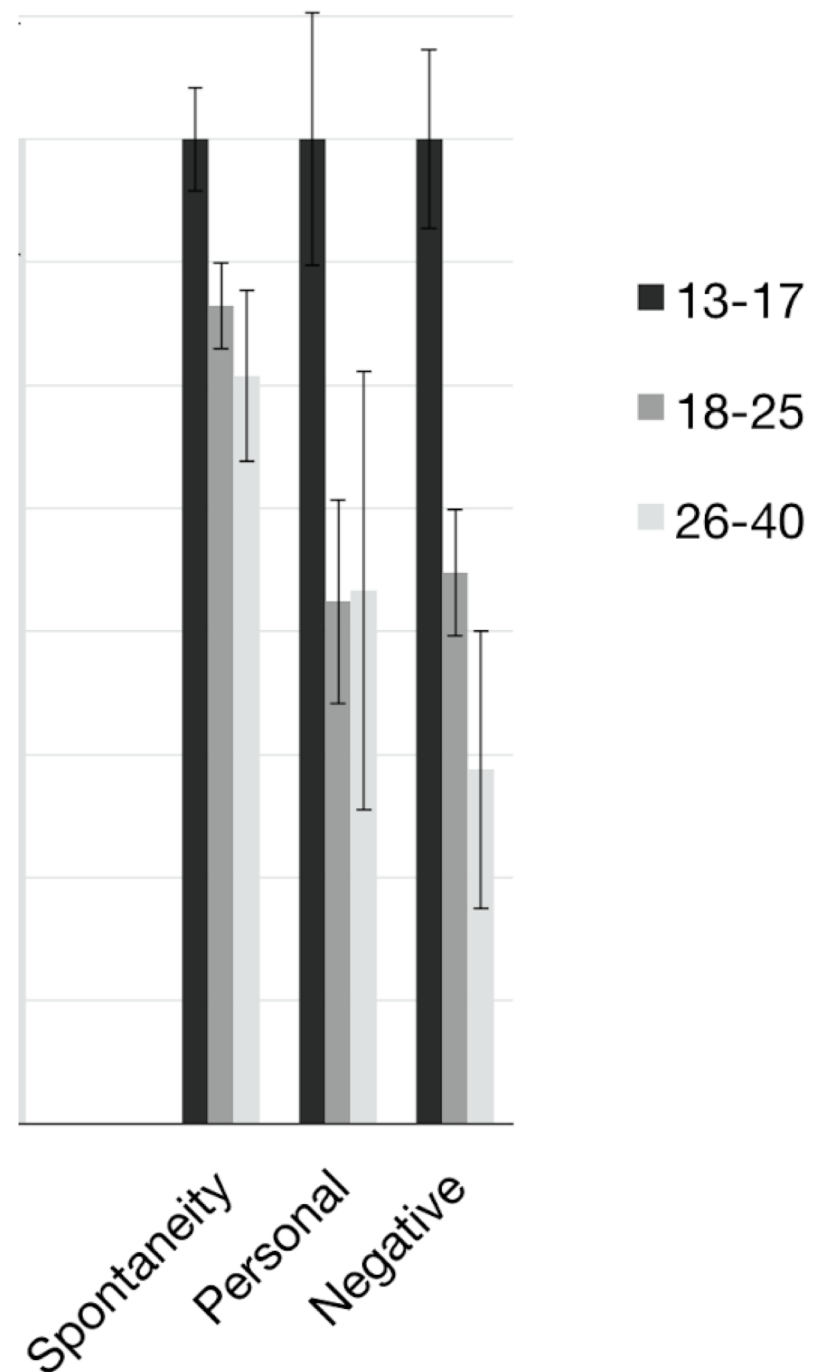
New apps we love   See All ›

**Cabana —
Hang out, w...**
Social Netw...

**Animal World
- Animal So...**
Education
$2.99
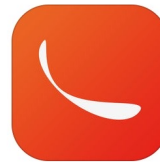
**Charge
Running**
Health & Fit...

**AutoSleep.
Auto Sleep...**
Health & Fit...
$2.99

Art
Mal
Edu

New games we love   See All ›

**Marvel's
Guardians o...**
Games
$4.99

**CATS: Crash
Arena Turbo...**
Games

Vignettes
Games
$2.99

**Invert - A
Minimal Puz...**
Games
$2.99

Dig
Gar

What we're playing today   See All ›

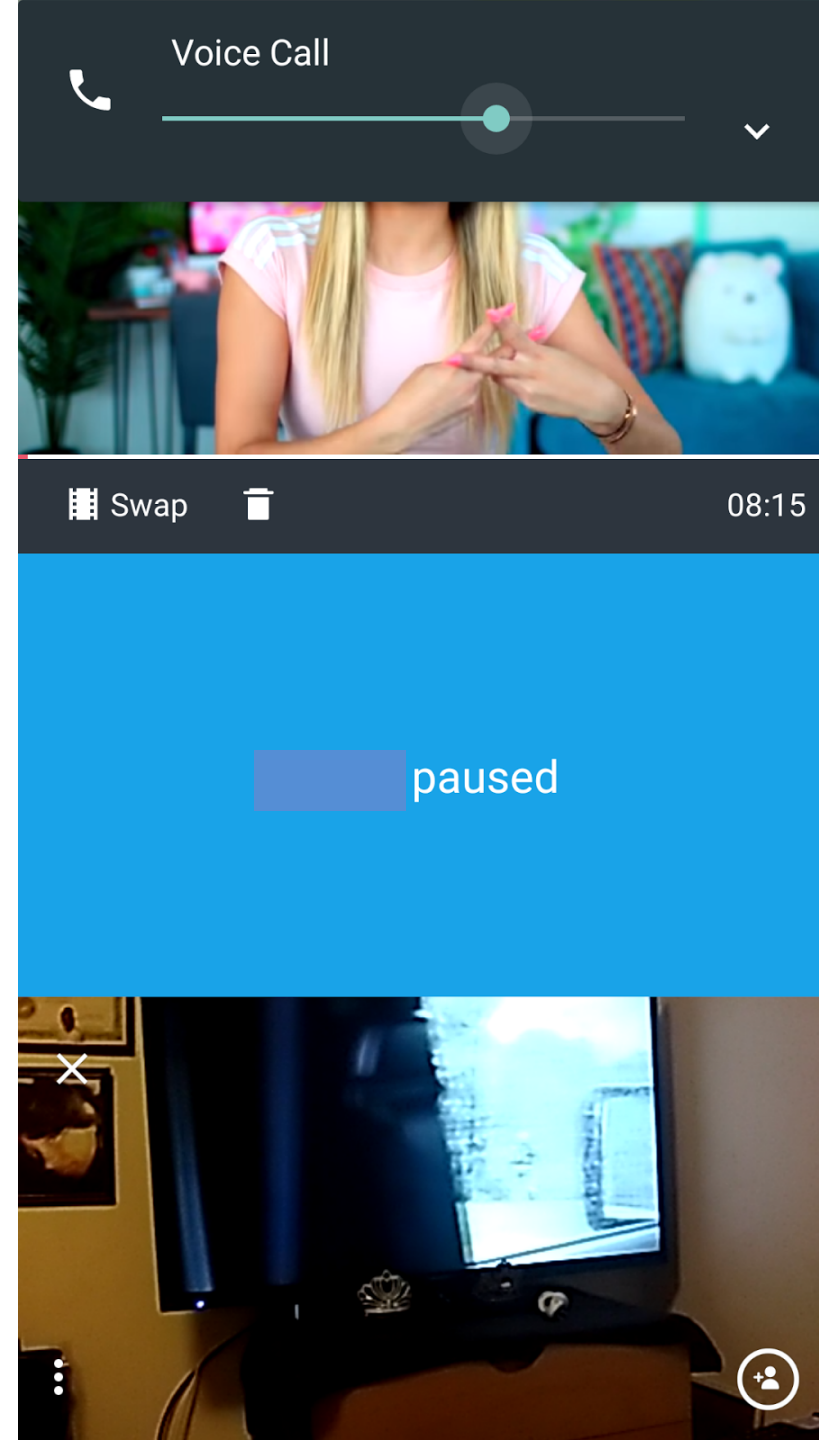| ⭐	🗄	≣	🔍	⬇ 66
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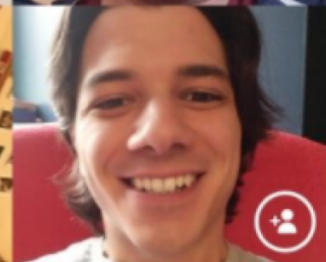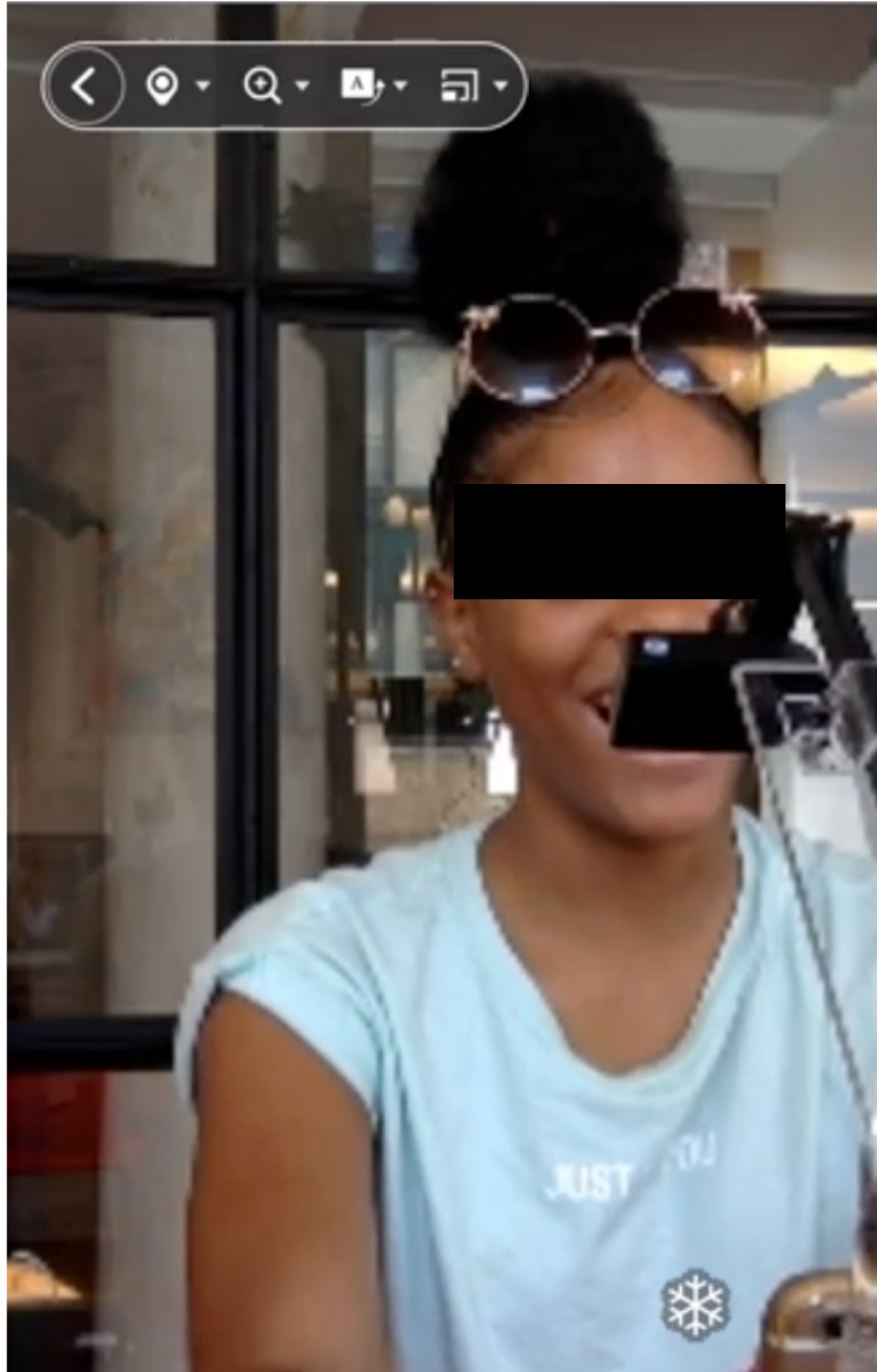
How do teens videochat?

Multimedia diary study

2 weeks
16 teens

Suh, M., Bentley, F., and Lottridge, D, "It's Kind of Boring Looking at Just the Face": Understanding Teens' Mobile Videochat Practices. Submitted to CSCW 2018.
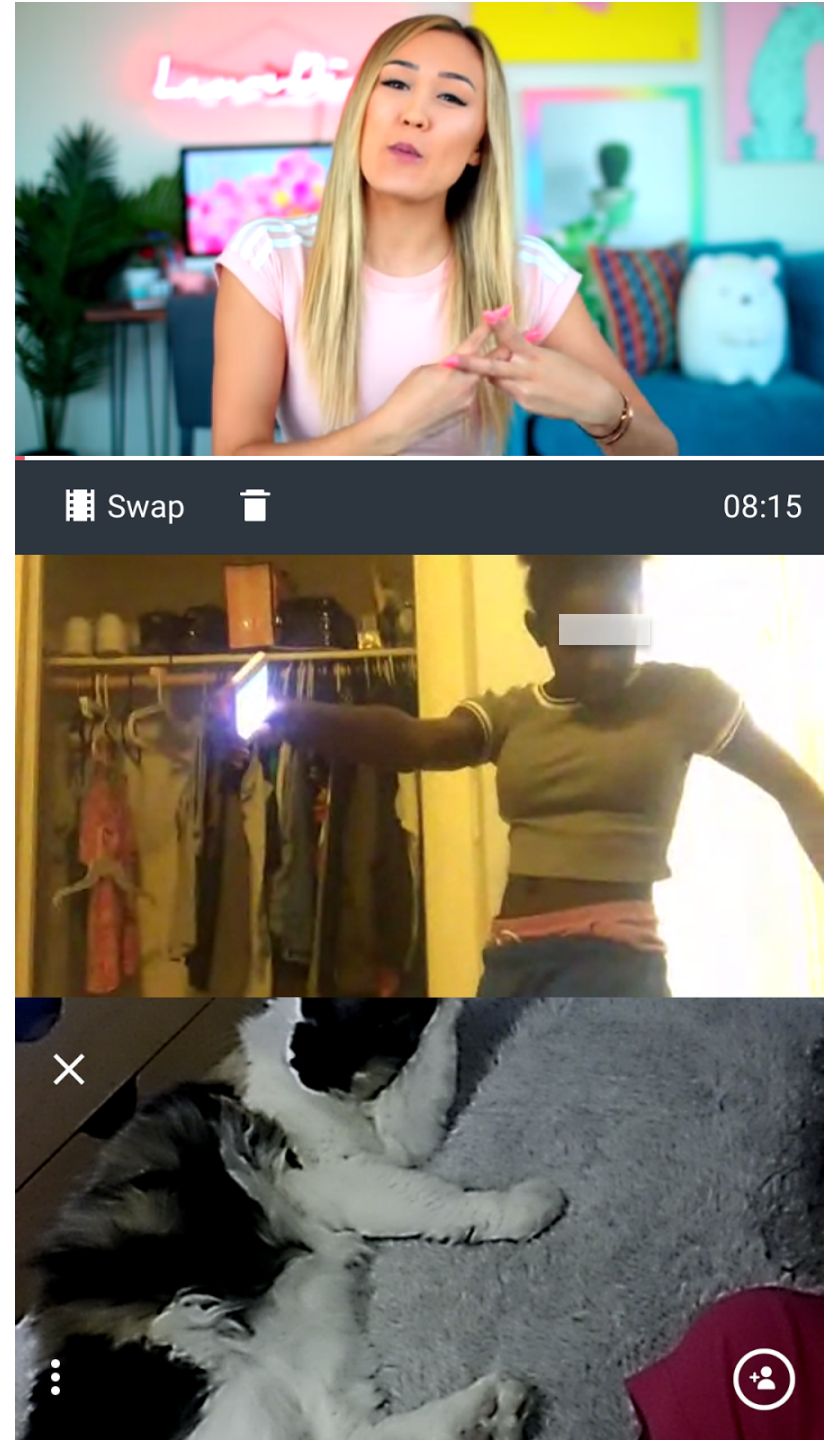
Method

- Initial interviews
  - Started interviews with friendship pairs
  - Finished interviews one-on-one

- 2 week diary study period
  - Screenshots shared with researchers over slack

- Final interviews

Interviews: Critical Incident Technique

real stories of real multitasking

Affinity Analysis

Videochat is personal

Boredom and self-regulation

I was bored. And I didn't have nobody to talk to, so I was like, "You want to just Facetime on the app?" And then she was like, "Yeah." (D.)

...I'm so used to Facetime it's like I always go on pause too because it's boring just looking at the same person, especially if it's a lot of us then we try to watch a video but it's too many people to watch a video then I'll just go on another app like I'm not just going to sit here. (R.)
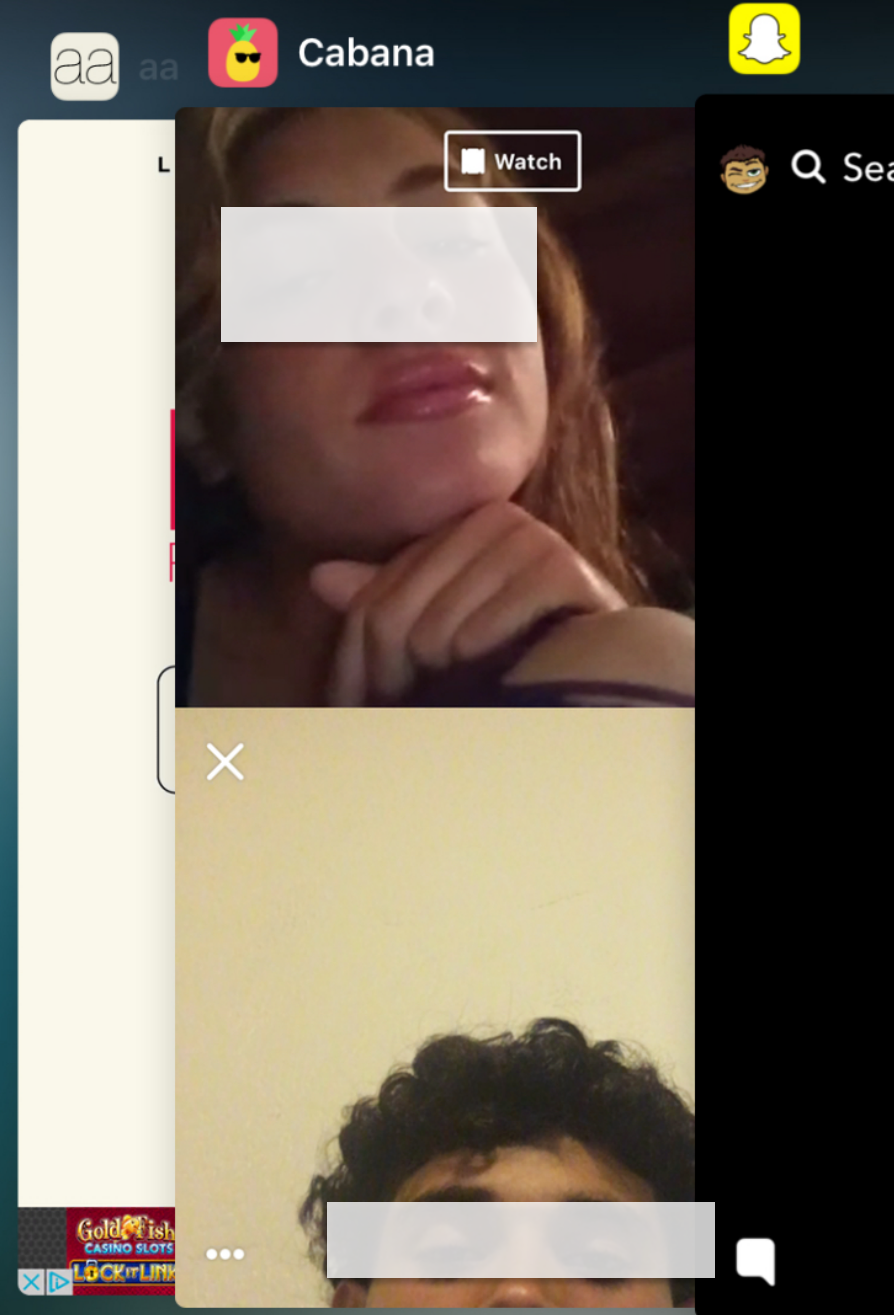
Videochat is unremarkable

I forgot I was on videochatting! Sometimes we'll forget we're even on FaceTime. We'll be Snapchatting each other and be like, "Oh wait." (A.)

I was on Skype and there were probably three other people. I was like, "Oh, I'll be back in a minute. I just need to go get something." I was getting a snack or something. I totally forgot about it. 10 minutes later, I come back. I'm like, "Are you guys still on?" (S.)
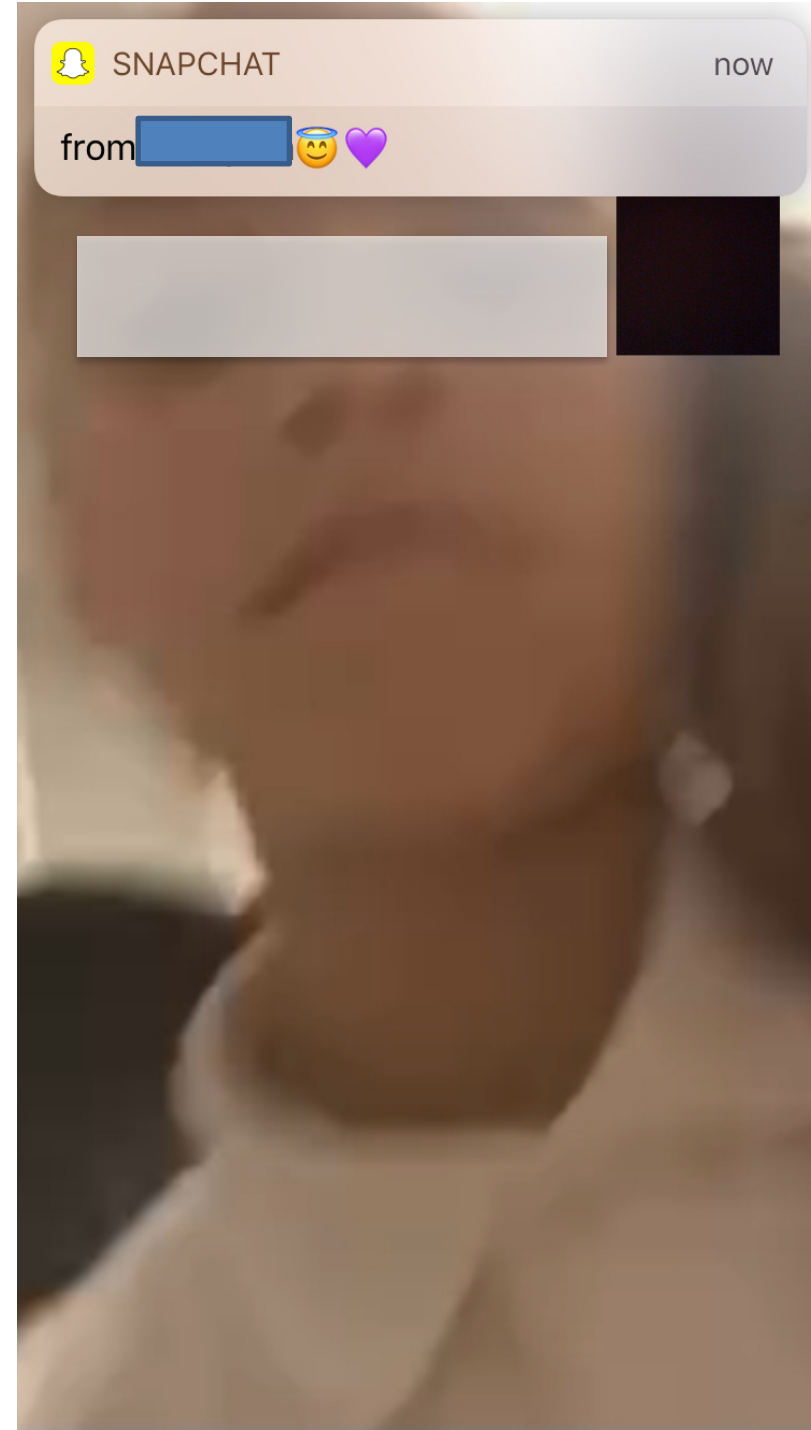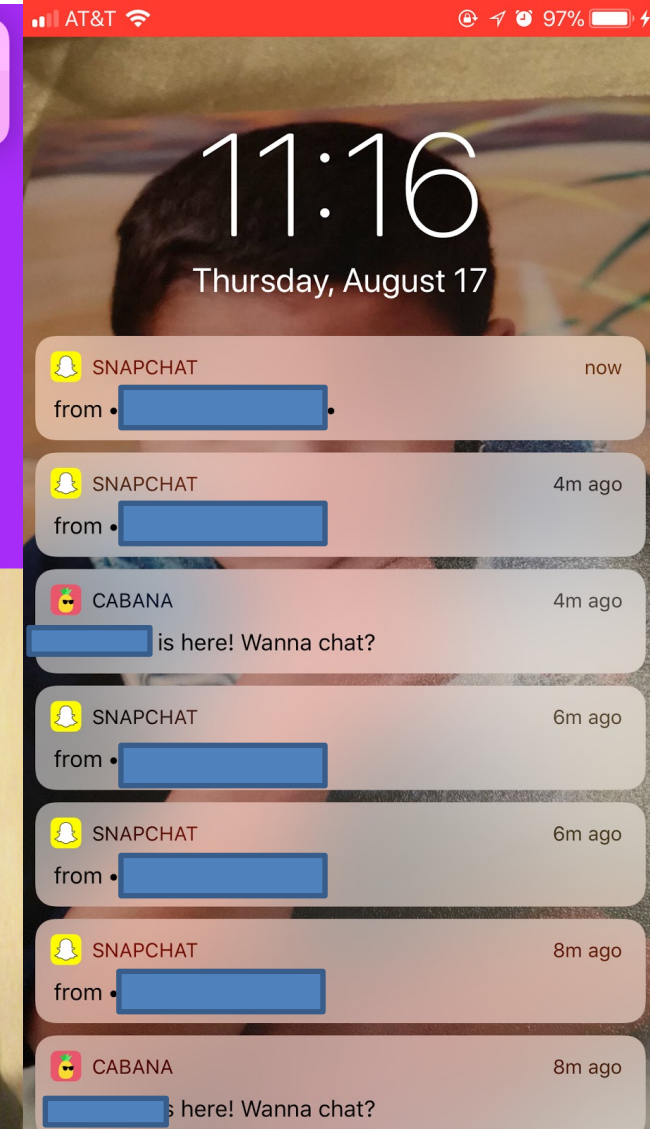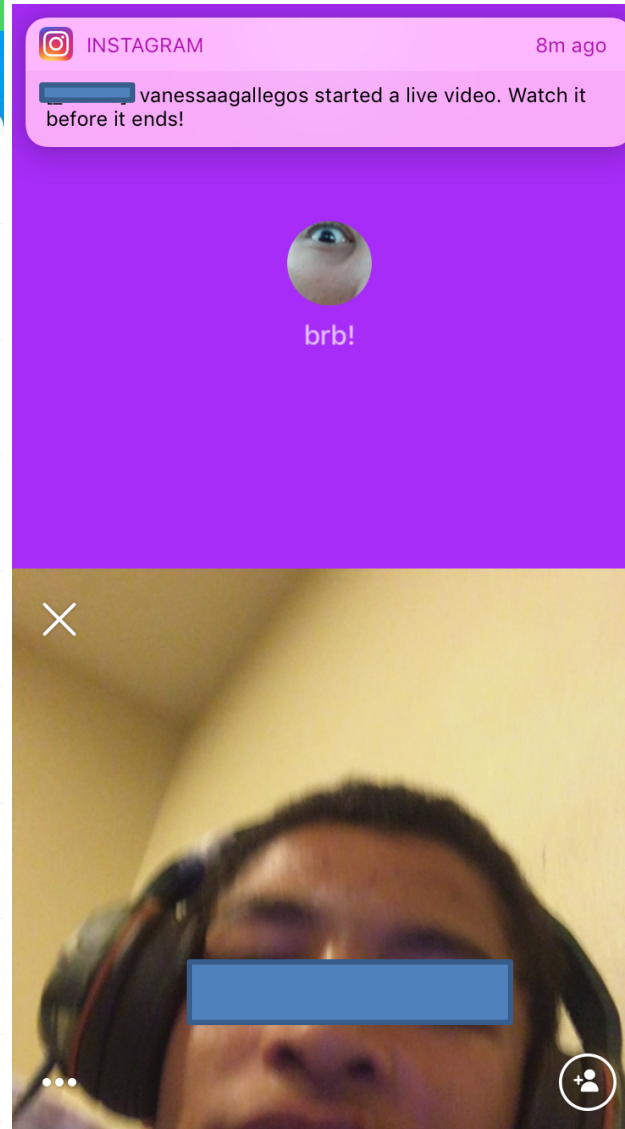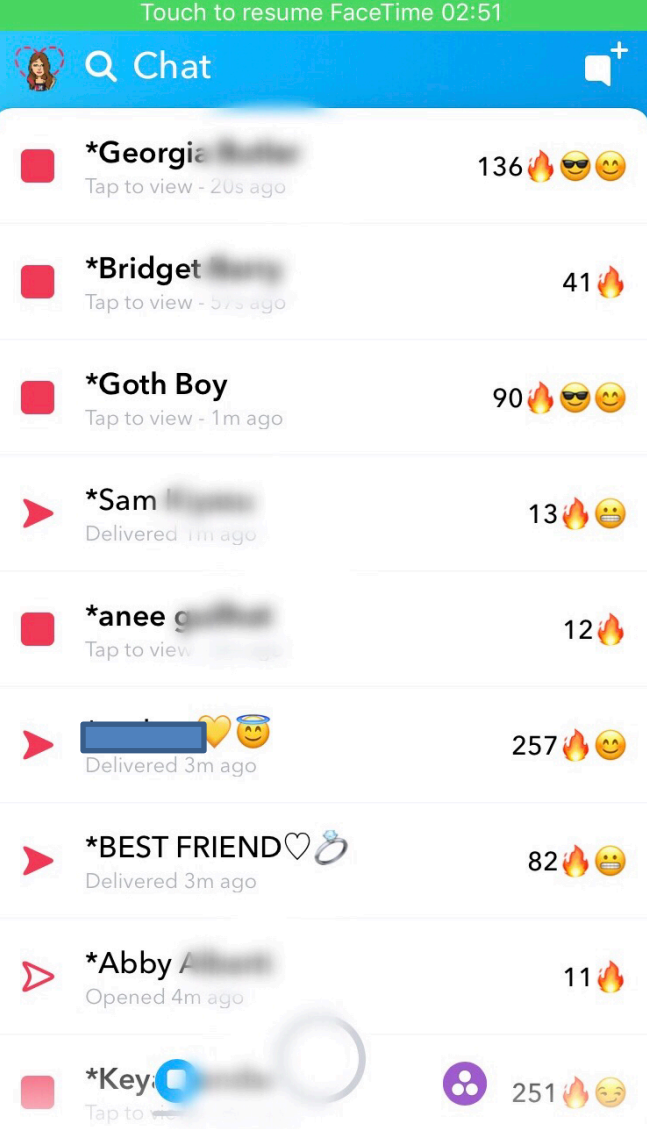
Digital interruptions: *"I can manage them."*

academic research

Science   Design   Humanities

epistemology

/ɪˌpɪstɪˈmɒlədʒi,ɛˌpɪstɪˈmɒlədʒi/ 🔊

noun   PHILOSOPHY

the theory of knowledge, especially with regard to its methods, validity, and scope, and the distinction between justified belief and opinion.

Alternative knowledge claim positions

Postpositivism
- Determination
- Reductionism
- Empirical observation and measurement
- Theory verification

Constructivism
- Understanding
- Multiple participant meanings
- Social and historical construction
- Theory generation

Advocacy/Participatory
- Political
- Empowerment issue-oriented
- Collaborative
- Change-oriented

Pragmatism
- Consequences of actions
- Problem-centered
- Pluralistic
- Real-world practice oriented

Creswell, J. W. (2003). Chapter 1: A framework for design. Research design: qualitative, quantitative and mixed methods. Sage Publications, Thousand Oaks, CA.

Science   Design   Humanities

Science | Design | Humanities

Conservative   Pragmatic   Romantic

Fallman, D. (2003). Design-oriented human-computer interaction. In Proceedings of the SIGCHI conference on Human factors in computing systems (pp. 225-232). ACM.

Science | Design | Humanities

Conservative	Pragmatic	Romantic
engineering	bricolage	art
glass box	self organizing system	black box
result of process	outcome of dialogue	functional art
methods	experience	creativity
rational	reflective	mystical

Fallman, D. (2003). Design-oriented human-computer interaction. In Proceedings of the SIGCHI conference on Human factors in computing systems (pp. 225-232). ACM.

MOST PRODUCTIVE ENTREPRENEURS

Multitasking Is Making You Stupid Doing many things at once isn't just distracting -- it actually takes points off your IQ, scientists say. 🔗

BY JESSICA STILLMAN, CONTRIBUTOR, INC.COM @ENTRYLEVELREBEL
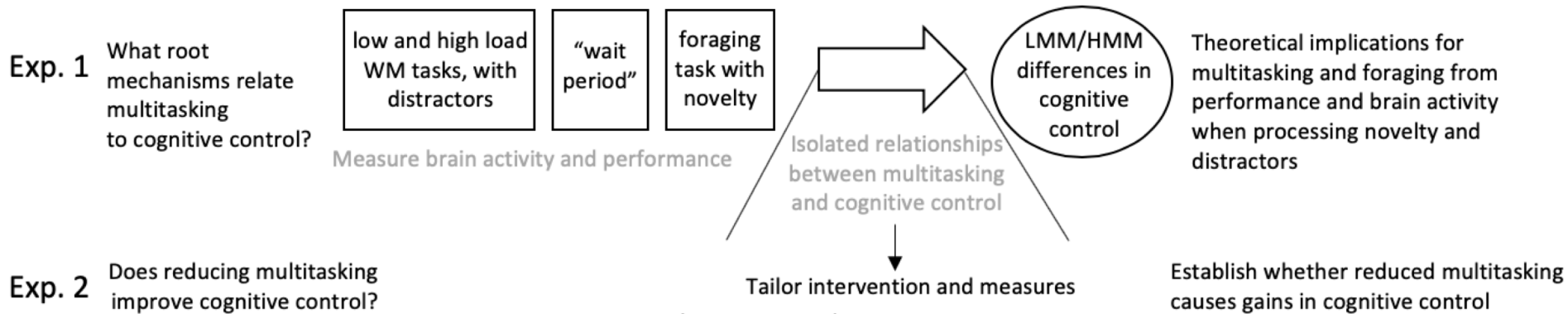

Power

Multitasking and cognitive control

Figure 1. Research questions and experiments

1 in 4 globally will have a stroke at age 25 or older, according to new study

By Bianca Britton, CNN

Updated 2005 GMT (0405 HKT) December 21, 2018

Potassium

Magnesium

enjoyable
experience

social content

upper limb
exercise
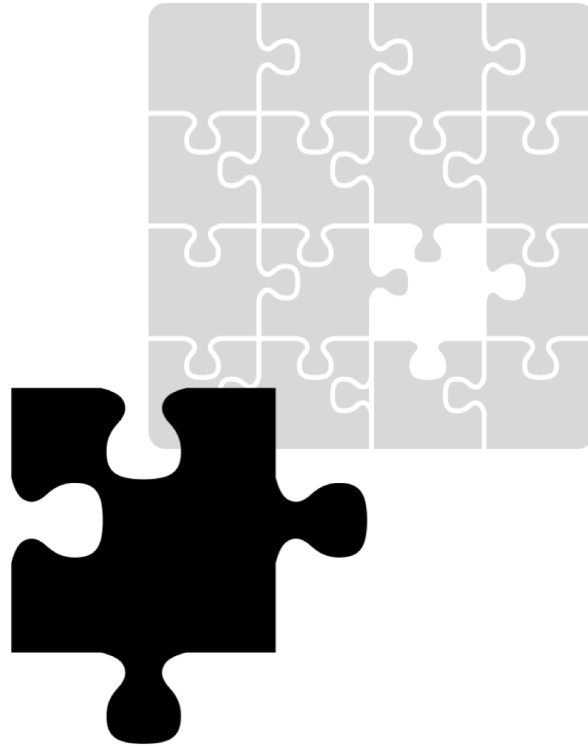
Puzzle images are whakatauki and photos from whanau

"Poipoia te kakano
Kia puawai"
Nurture the seed and
it will blossom
He whakatauki

Sources: https://www.pinterest.nz/pin/530932243554280690/
selfie
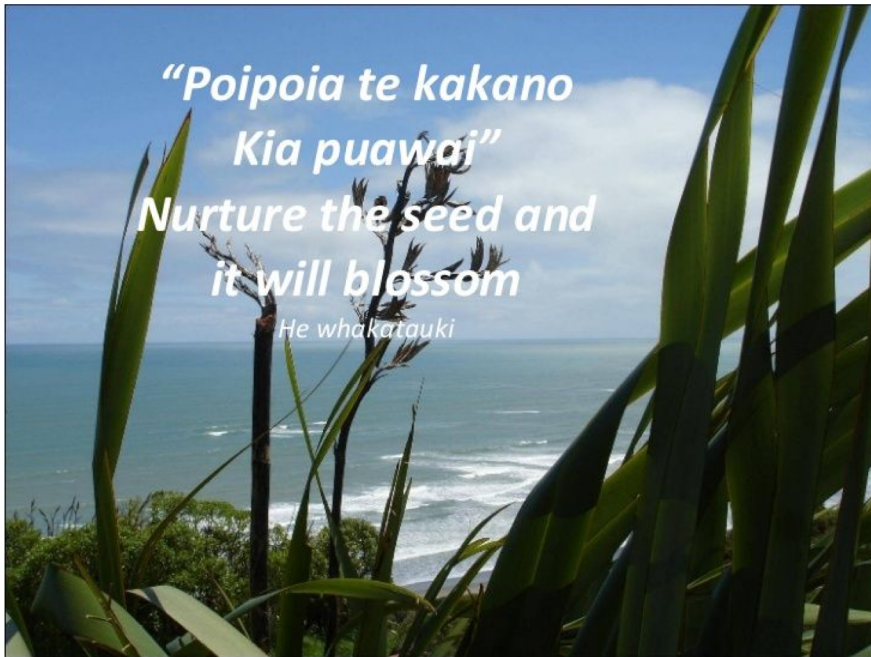
https://www.sciencephoto.com/media/1012496/view/happy-family-taking-selfie
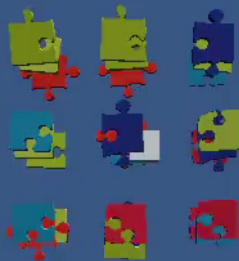
Whanau upload photos for puzzles to an app

1

2

Last thoughts

Research methods used in industry

- – Personas and verification
- – Concept testing with storyboards and prototypes
- – User needs through survey and interviews
- – Usability studies, weekly pace
- – Diary study

Academic research

- – Epistemology
- – Design approach
- – What resonates with you?

tumblr.

Questions?

Thanks!