Human-Computer Interaction

CSCW

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Today's Agenda

» Topic overview: *CSCW*

» Discussion

» Project Activity: *Determining Method, Continued*

Topic overview: *CSCW* (*Part 1*)

What is CSCW?

What is CSCW?

Definition: CSCW "combines the understanding of the way people work in groups with the enabling technologies of computer networking, and associated hardware, software, services and techniques."[1]

What is groupware?

Definition: Groupware includes application software designed to help people working on a common task to attain their goals.[2]

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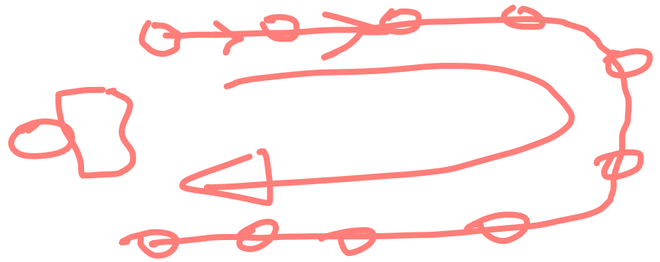
[1] Wilson, 1991, Computer Supported Cooperative Work: An Introduction

[2] Wikipedia: Groupware

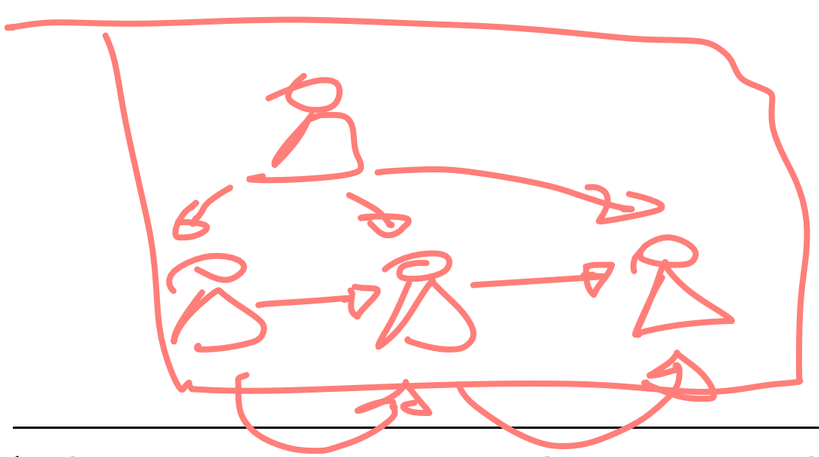
CSCW = the group working process + the technology[1]

[1] Wilson, 1991, Computer Supported Cooperative Work: An Introduction

What do you mean by group work processes?



1. *Individual human characteristics*, e.g., conversation patterns
2. *Organizational aspects*, e.g., structure and culture of the organization
3. *Group work design issues*, e.g., involvement in the work design process
4. *Group dynamics*, e.g., group decision making, collaboration[1]



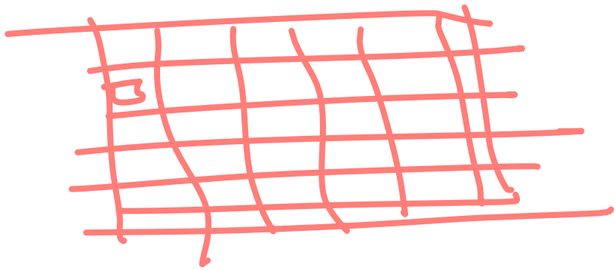
[1] Wilson, 1991, Computer Supported Cooperative Work: An Introduction

What do we mean by CSCW technology?

1. *Communication mechanisms*—enabling people to communicate, e.g., videoconferencing
2. *Shared work space facilities*—enabling people to view and work on the same electronic space, e.g., screen sharing
3. *Shared information facilities*—enabling people to view and work on a shared set of information, e.g., cloud-based document sharing
4. *Group activity support facilities*—augmenting group work processes, e.g., simultaneous document editing[1]

[1] Wilson, 1991, Computer Supported Cooperative Work: An Introduction

Time/space Groupware Matrix[3]



	Synchronous	**Asynchronous**
Collocated	**Face-to-face interactions** Decision rooms, single display groupware, shared table, wall displays, roomware	**Continuous task** Team rooms, large public display, shift work groupware, project management
Remote	**Remote interactions** Video conferencing, instant messaging, chats/MUDs/virtual worlds, shared screens, multi-user editors	**Communication + coordination** Email, bulletin boards, blogs, asynchronous conferencing, group calendars, workflow, version control, wikis

GitHub

[3] Johansen, 1988, Groupware: Computer Support for Business Teams

Face-to-face interactions[4]

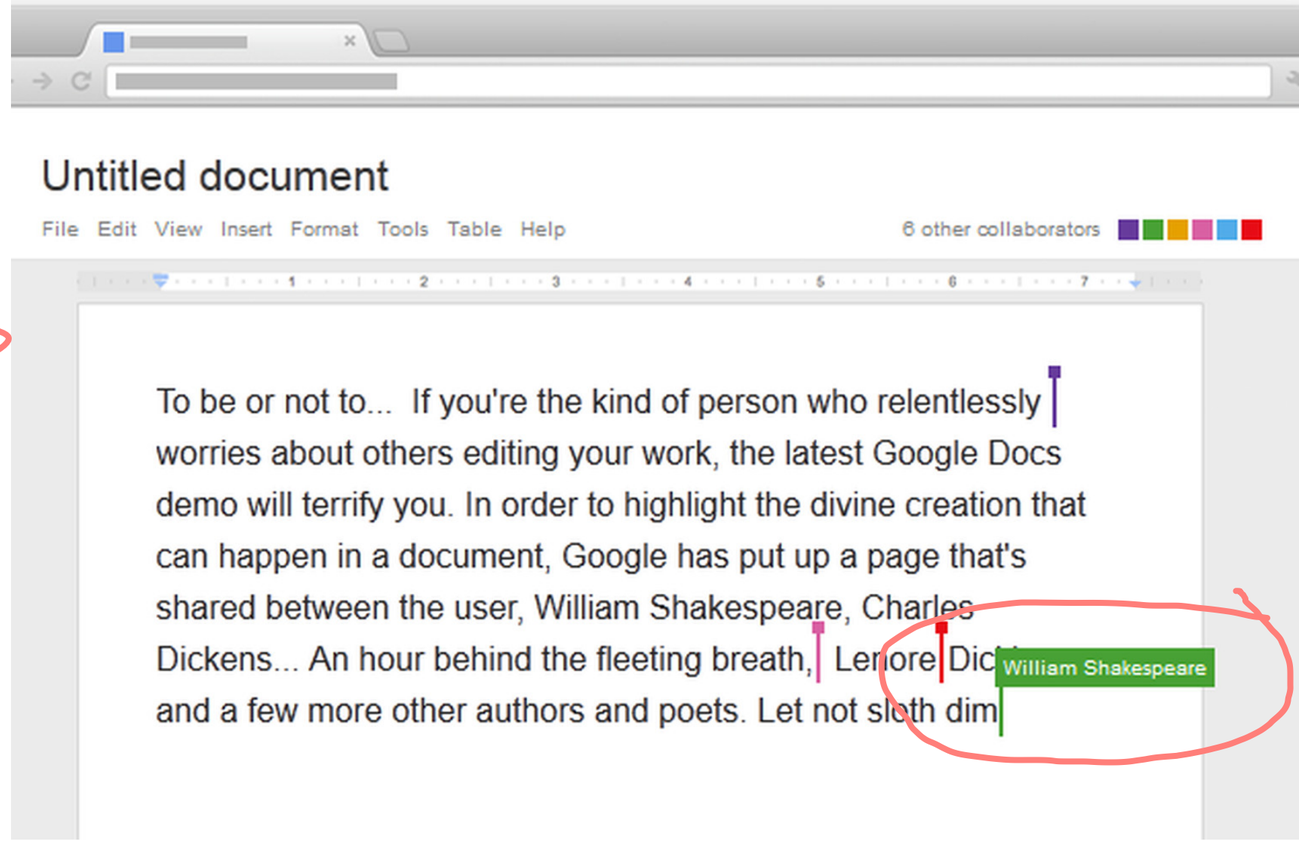
Right: group decision rooms (e.g., NASA Mission Control Center, Johnson Space Center)

[4] Image source: NASA

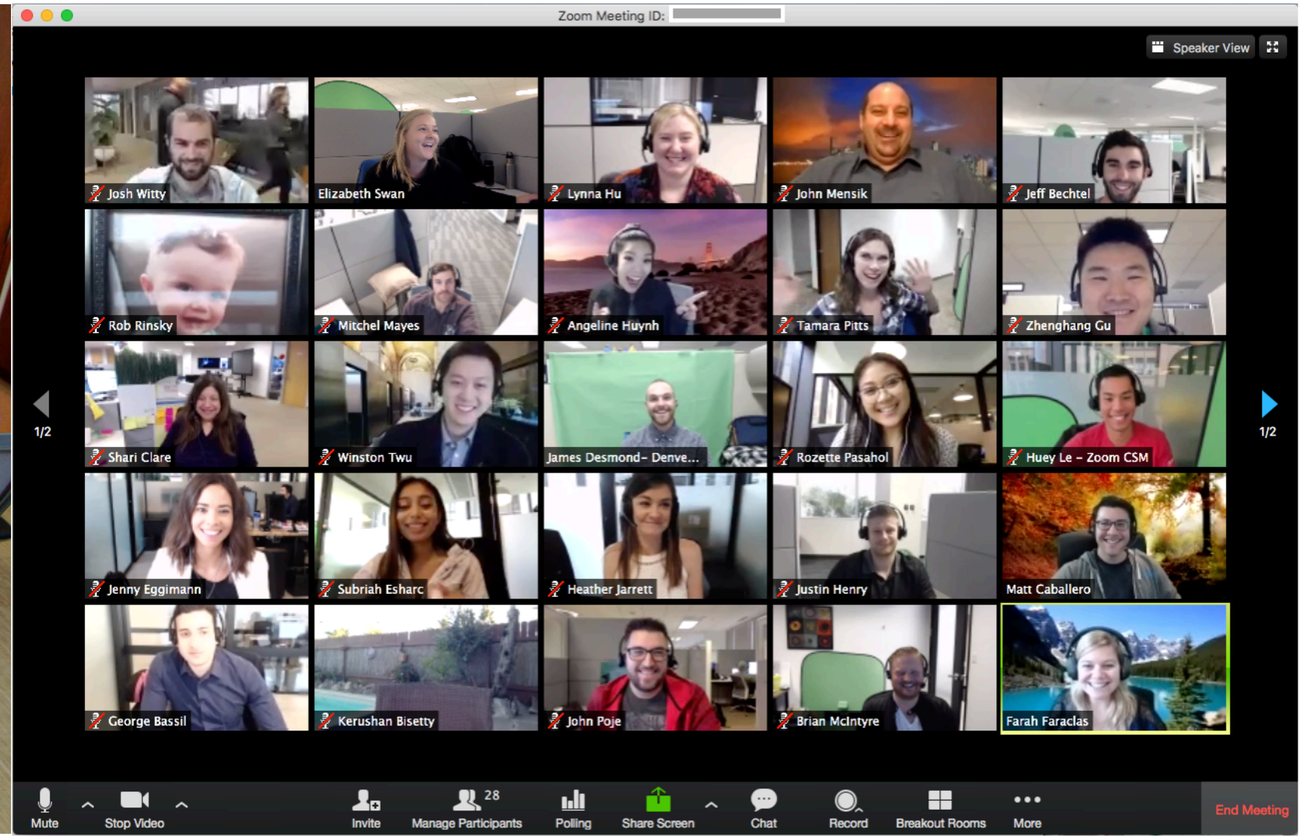
Remote interactions[5]

Right: collaborative authoring in Google Docs

Next slide: different forms of videoconferencing



[5] Image sources: Right, Next slide, left, Next slide, right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Speaker View
Josh Witty
Elizabeth Swan
Lynna Hu
John Mensik
Jeff Bechtel
Rob Rinsky
Mitchel Mayes
Angeline Huynh
Tamara Pitts
Zhenghang Gu
Shari Clare
Winston Twu
James Desmond- Denve...
Rozette Pasahol
Huey Le - Zoom CSM
Jenny Eggimann
Subriah Esharc
Heather Jarrett
Justin Henry
Matt Caballero
George Bassil
Kerushan Bisetty
John Poje
Brian McIntyre
Farah Faraclas
1/2
1/2
Mute
Stop Video
Invite
Manage Participants
28
Polling
Share Screen
Chat
Record
Breakout Rooms
More
End Meeting

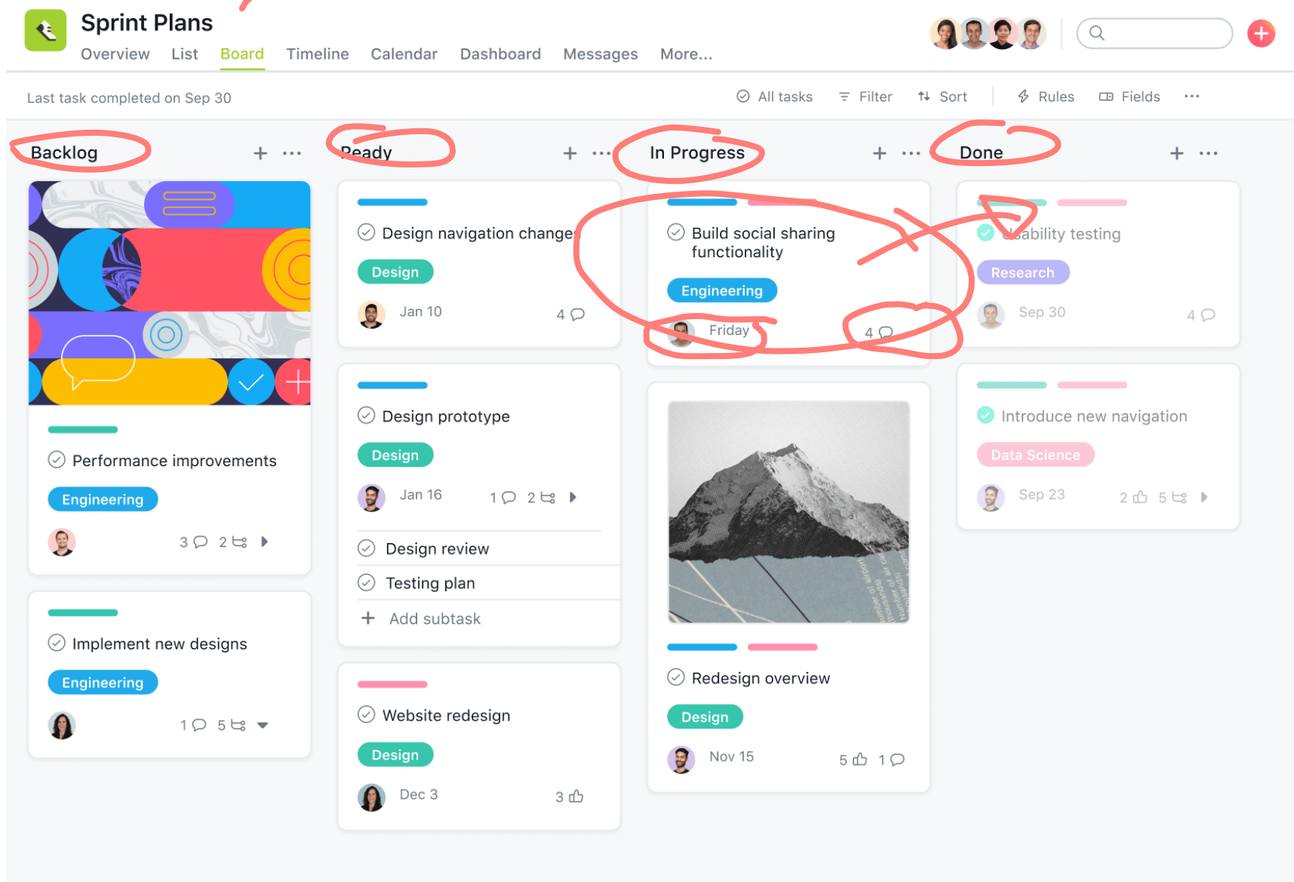
Continuous task[6]

Right: persistent project management displays

[6] Image source

Communication + coordination[7]

Right: project management software tools



[7] Image source

CSCW, Part 2: Crowdsourcing

» **Part 1:** CSCW (this week)

» **Part 2:** Crowdsourcing (next week)

Discussion Questions

- What are some of the groupware systems are we using for this class? How would you categorize them?
- What are examples of the challenges that Grudin highlighted you see in today's groupware?
- What principles do you see carried over to non-work contexts?
- What relevant external resources have you found?
- ...

Project (Check-in)

Determining Method (continued)

Feasible research templates:

» *Nascent theory* → Ethnography, Grounded Theory to build new theory

» *Mature theory* → Experimental study extending/testing existing theory

» *Artifact* → New system/extension, preliminary evaluation with users

Determining Method (continued)

Research contexts:

» **In-person:** studying phenomena in the real world

» **Virtual:** studying online phenomenon

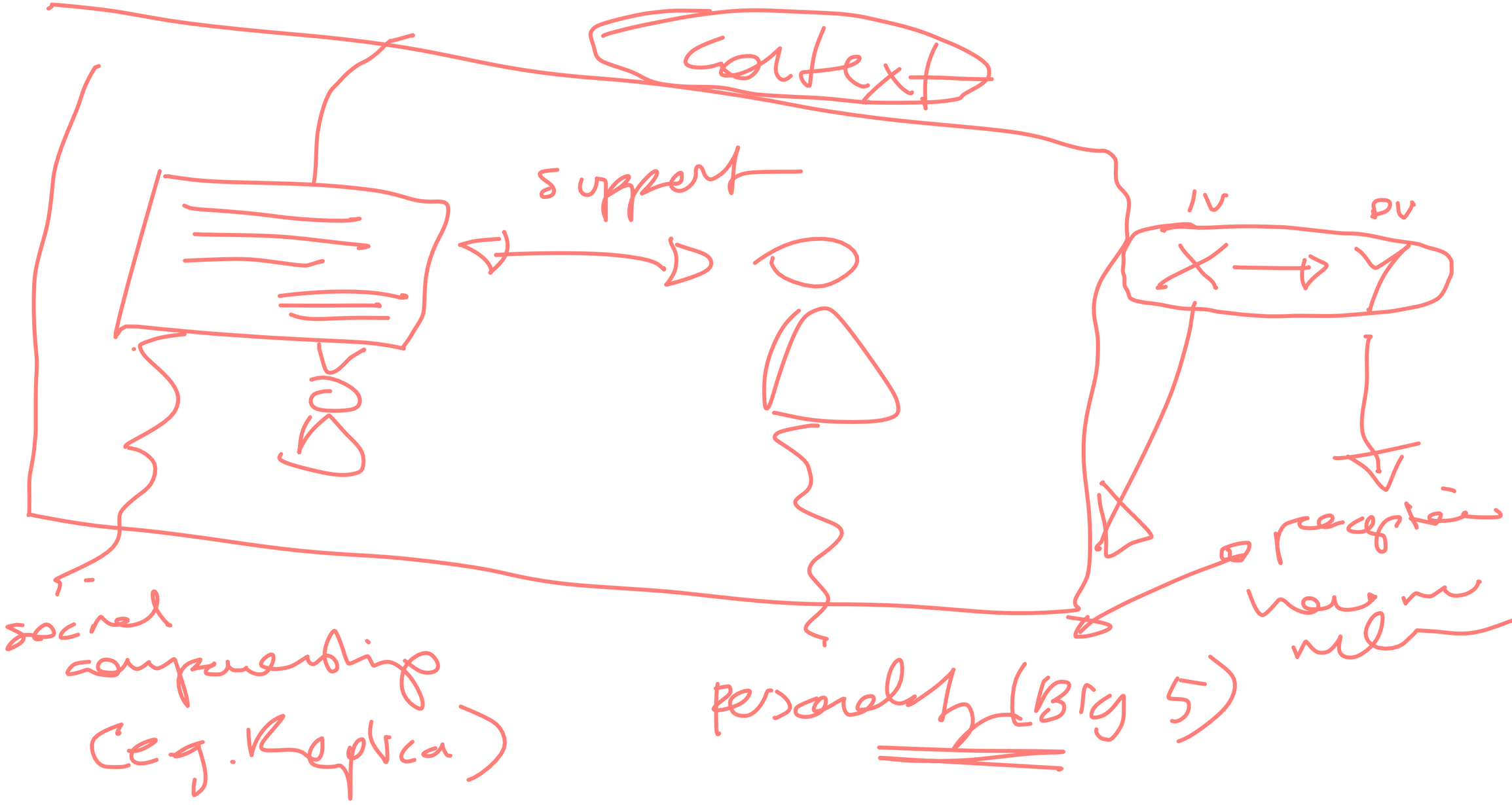
» **Online:** using online methods to study phenomenon in the real world

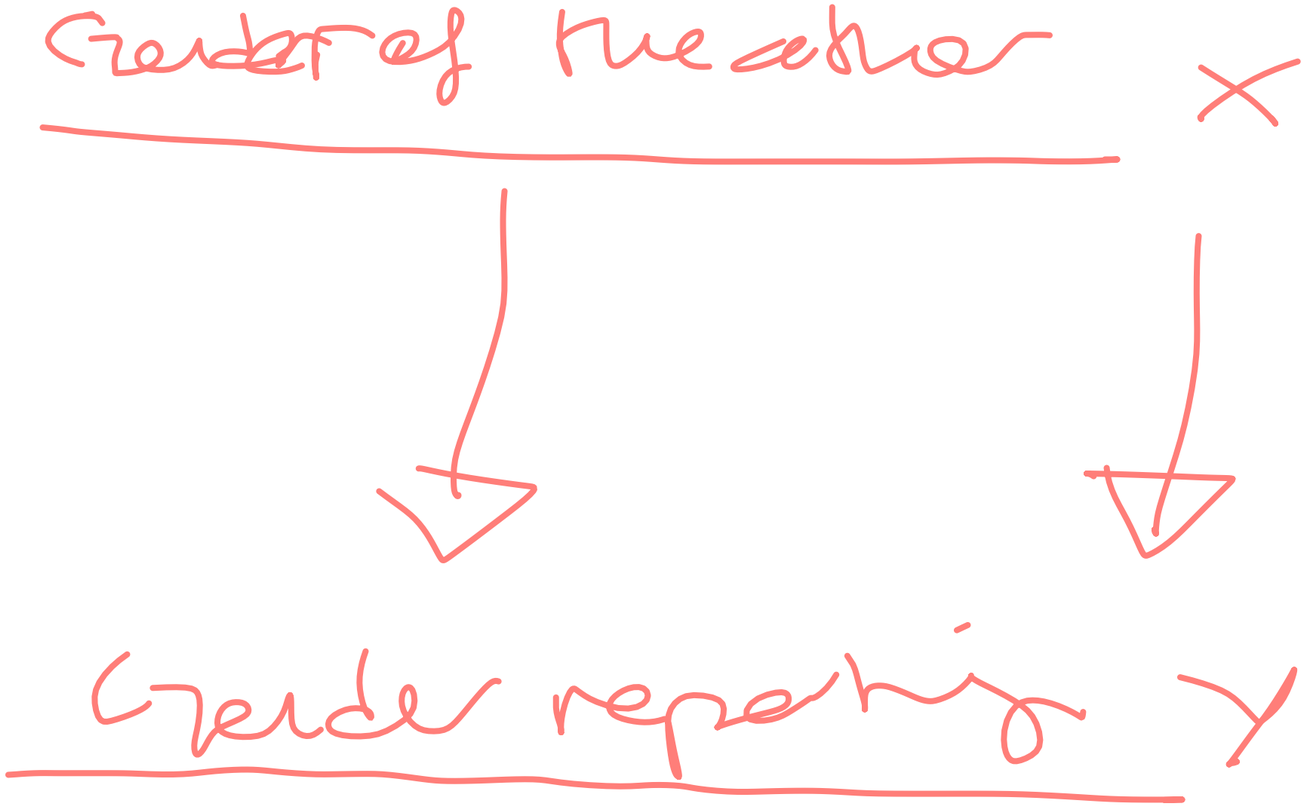
Deliverables

Nov 1 → Due date for your method description (you have 2 weeks)

What is expected?

- A description of your method
- All your "study materails" must be ready
  - *Ethnography* → Site identification, permissions, etc.
  - *Experimental study* → Materials, instruments, surveys, etc.
  - *Artifact* → Design requirements, preliminary evaluation plan, etc.


context
support
IV
DV
X
Y
social
comparing
(e.g. Replica)
personality (Big 5)


Gender of the author
X
Gender reporting
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