



KAIST FALL 2025

CS473: INTRO TO SOCIAL COMPUTING

SOCIAL.CSTLAB.ORG

Lecture 17: Human-AI Interaction (Part 2)

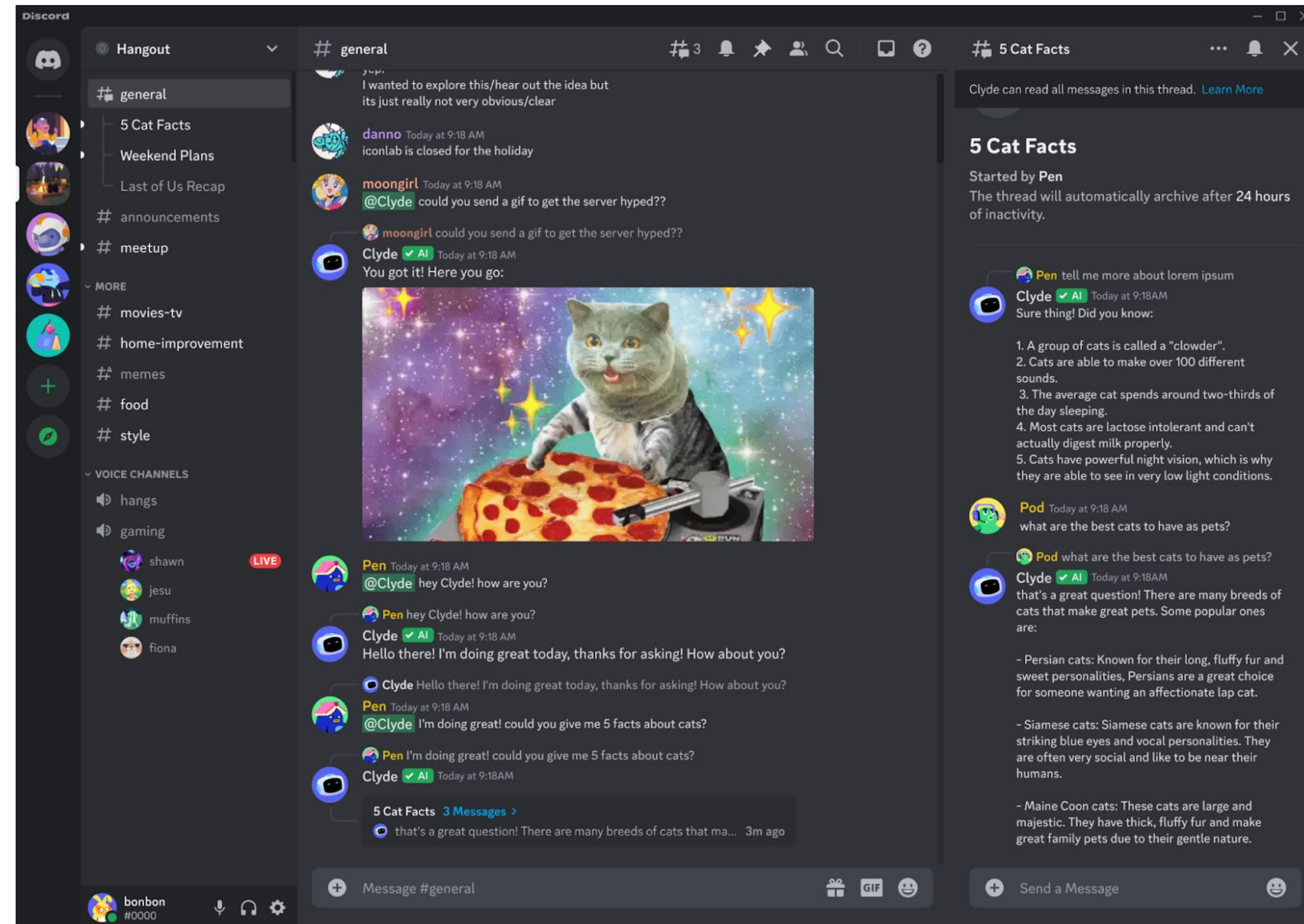
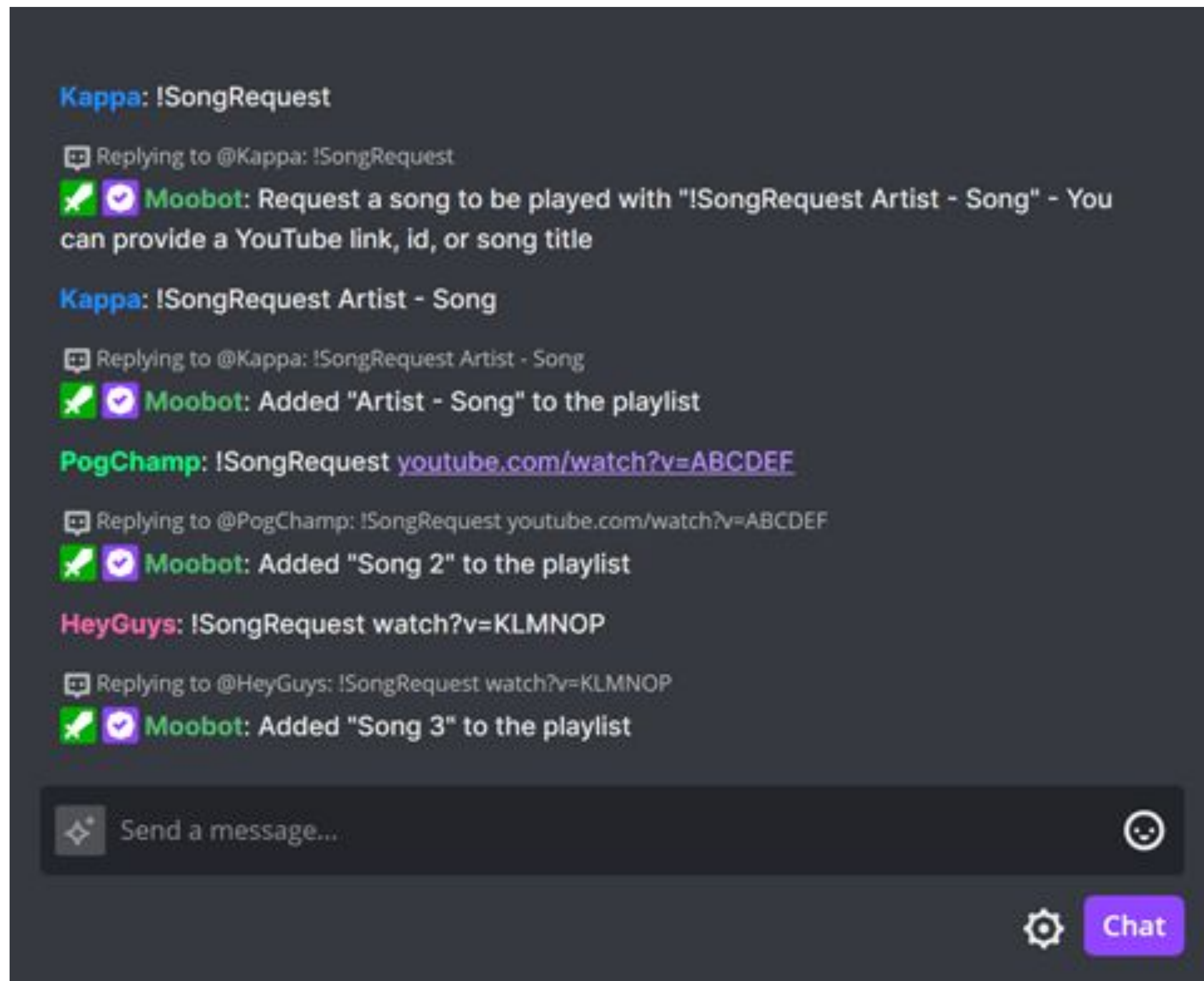
2025.11.20
Joseph Seering

Design Project Milestone #4: High Fidelity Prototypes

- DPM4 studio is 11/25
 - No more than 7 minutes presenting, then ~8 minutes Q&A
 - There is no pre-defined format.
 - However, it is **probably a good idea** for you to begin your presentation by reminding your audience about important background information.

What are Twitch chatbots
doing?

What do social chatbots do?



What do social chatbots do?

Messages

Message conjunction:

and

Seconds between messages (*):

30

MESSAGE	
Thank you for following, <div>Username, Username and Username</div> :D	<div>x</div>
Thanks for following, <div>Username, Username and Username</div> <3	<div>x</div>
Thanks for the follow, <div>Username, Username and Username</div> :)	<div>x</div>

Command

!youtube

This is your command name. It is usually prefixed with an exclamation mark (!), but you can make it anything.

Message

Subscriberino to my YouTube: <https://youtube.com/your/you/tube/link>

This is your command response. You can use [command variables](#) to make dynamic responses.

Spam filter settings

You can remove messages that disrupt your chat by enabling spam filters. Removing messages automatically, with low latency and certainty, can in many cases prevent unwanted behaviour from escalating in your chat. All removals are temporary timeouts.

Remove messages containing

Excessive use of caps — Removes messages containing excessive amounts of capital letters, so that your chat doesn't turn into a shouting match.

OFF

Settings

Banned words — Removes messages censored by the Twitch profanity filter ([Twitch settings](#))

ON

Settings

22:49 nuuls: !duel VortexManipulator 1000

22:49 StreamElements: @vortexmanipulator, nuuls wants to duel you for 1000 points, you can laccept or ldeny within 2 minutes

22:50 VortexManipulator: laccept

22:50 StreamElements nuuls won the Duel vs vortexmanipulator nuuls won 1000 points

Duel

Let viewers duel to win or lose points.

Command: !duel <username> <points>

Disabled

SETTINGS

4:24 nuuls: !8ball ?

4:24 StreamElements: @nuuls, the 8-ball says... who knows?

4:25 VortexManipulator: !8ball Hello ?

4:25 StreamElements: @VortexManipulator, the 8-ball says... never

Eight-ball

Open up the the magic 8 ball to viewers' questions.

Command: !8ball <question>

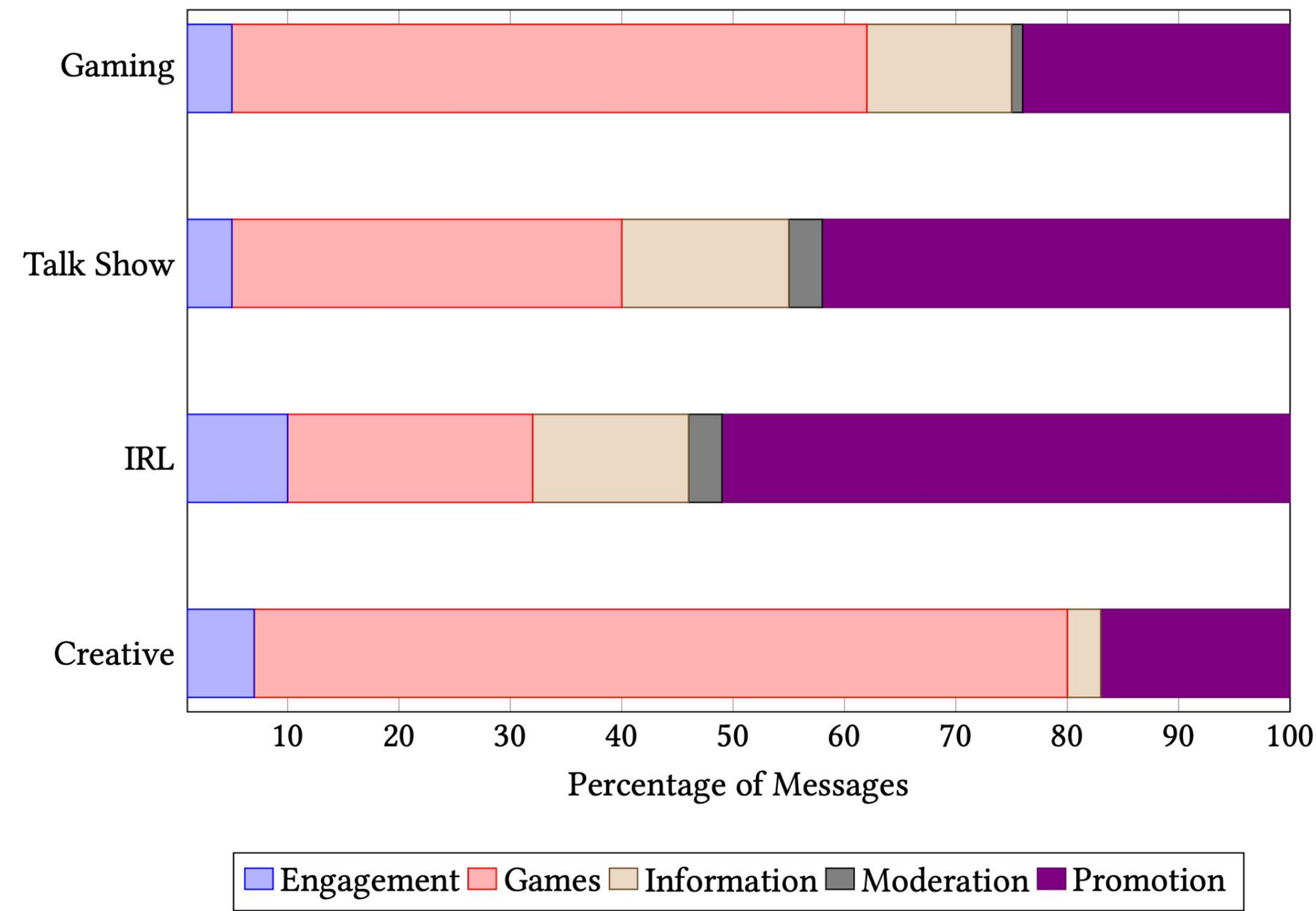
Disabled

SETTINGS

What do social chatbots do?

Table 7. Messages per user per hour by category

Chat Messages per user per hour by content category				
	Bots	Moderators	Subscribers	Regular Users
Creative	2.51	0.62	0.18	0.07
IRL	6.79	0.97	0.34	0.06
Talkshow	1.04	0.58	0.17	0.10
Gaming	22.42	0.82	0.31	0.07

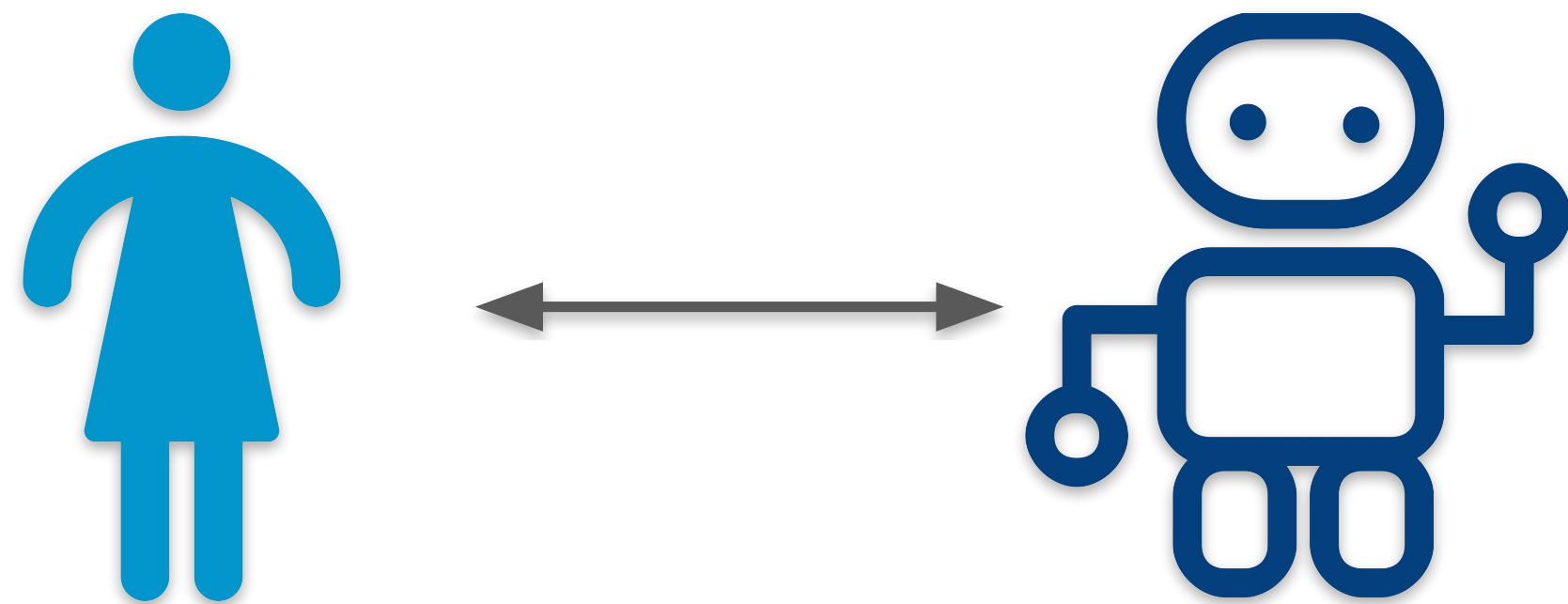


What CAN social chatbots
do?

What can social chatbots do?

1. Dyadic
2. “Broadcasting”
3. Multiparty (polyadic)

Dyadic chatbots



Welcome to

```
EEEEEE LL      IIII ZZZZZZZ AAAAA
EE      LL      II     ZZ   AA  AA
EEEEEE LL      II     ZZ   AAAAAA
EE      LL      II     ZZ   AA  AA
EEEEEE LLLLLL IIII ZZZZZZZ AA  AA
```

Eliza is a mock Rogerian psychotherapist.
The original program was described by Joseph Weizenbaum in 1966.
This implementation by Norbert Landsteiner 2005.

ELIZA: Is something troubling you ?

YOU: Men are all alike.

ELIZA: What is the connection, do you suppose ?

YOU: They're always bugging us about something or other.

ELIZA: Can you think of a specific example ?

YOU: Well, my boyfriend made me come here.

ELIZA: Is it important to you that your boyfriend made you come here ?

YOU: He says I'm depressed much of the time.

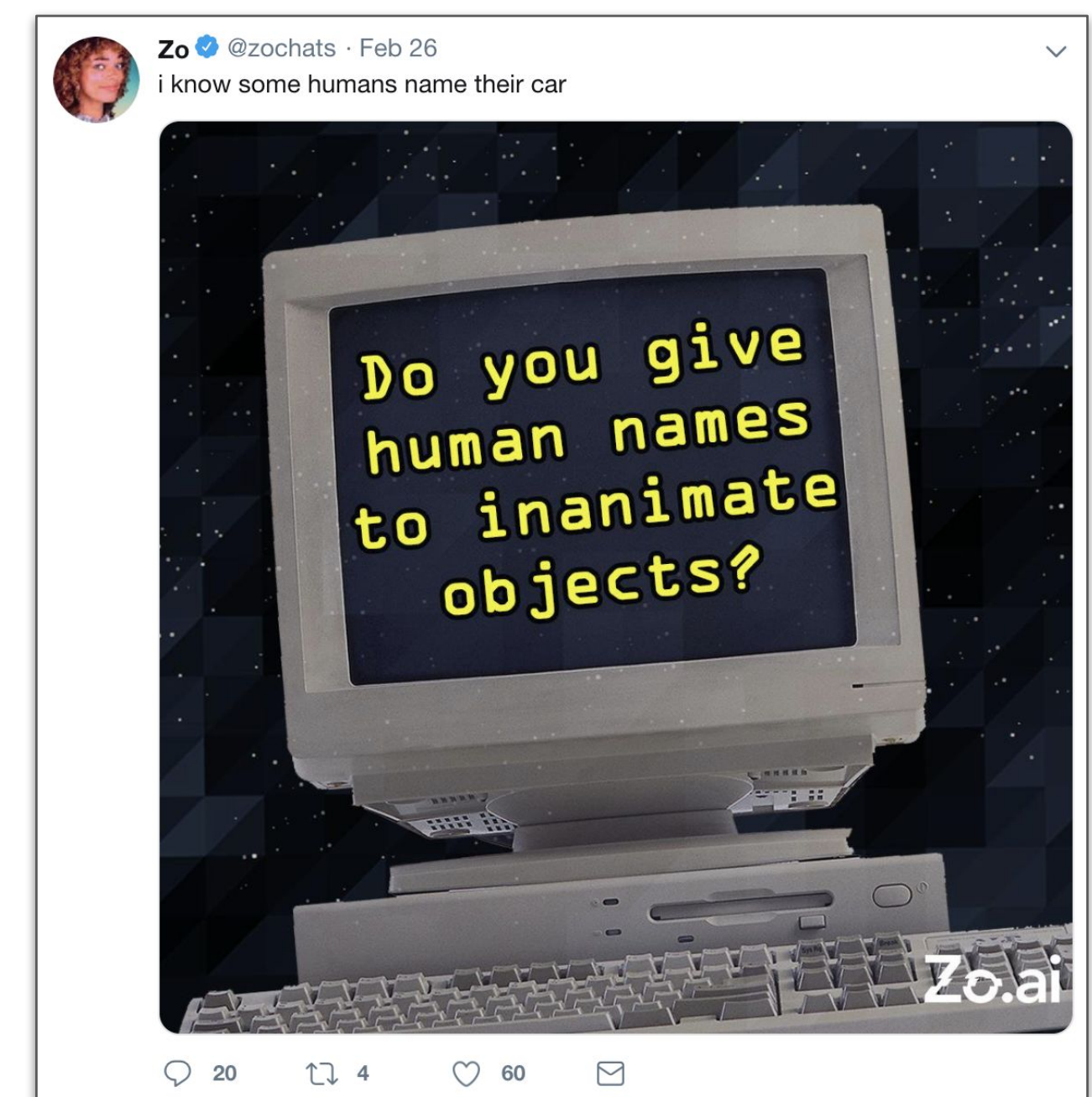
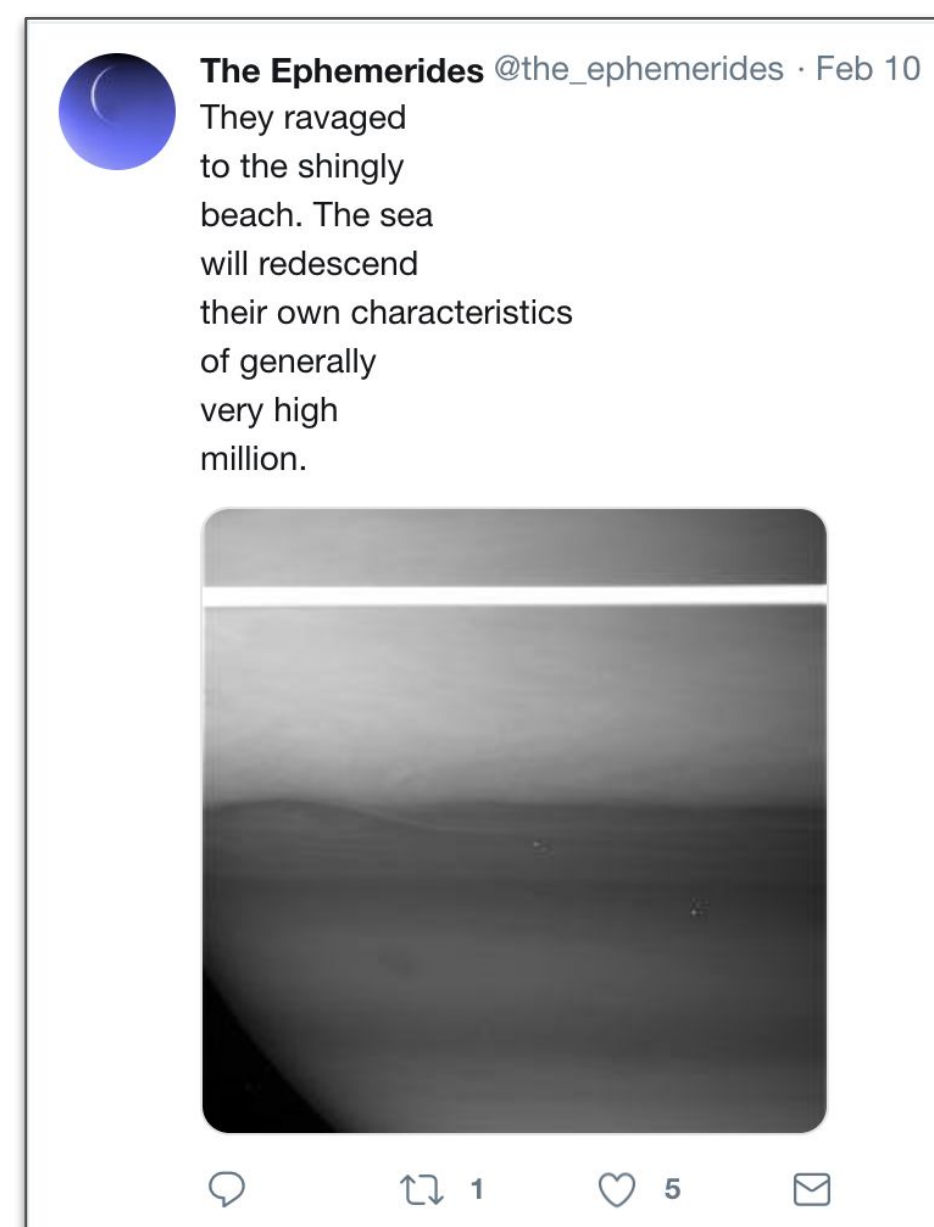
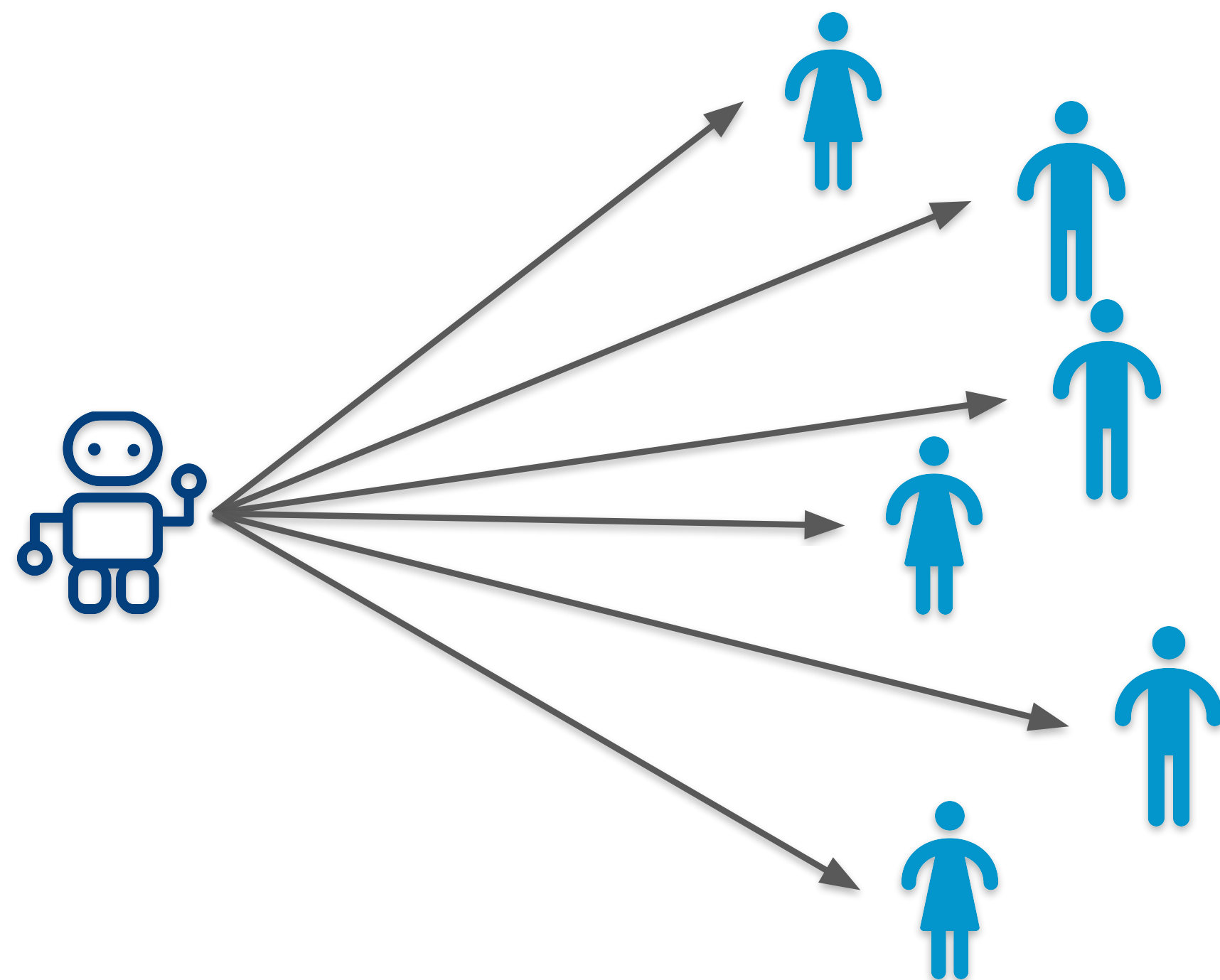
ELIZA: I am sorry to hear that you are depressed.

YOU: It's true. I am unhappy.

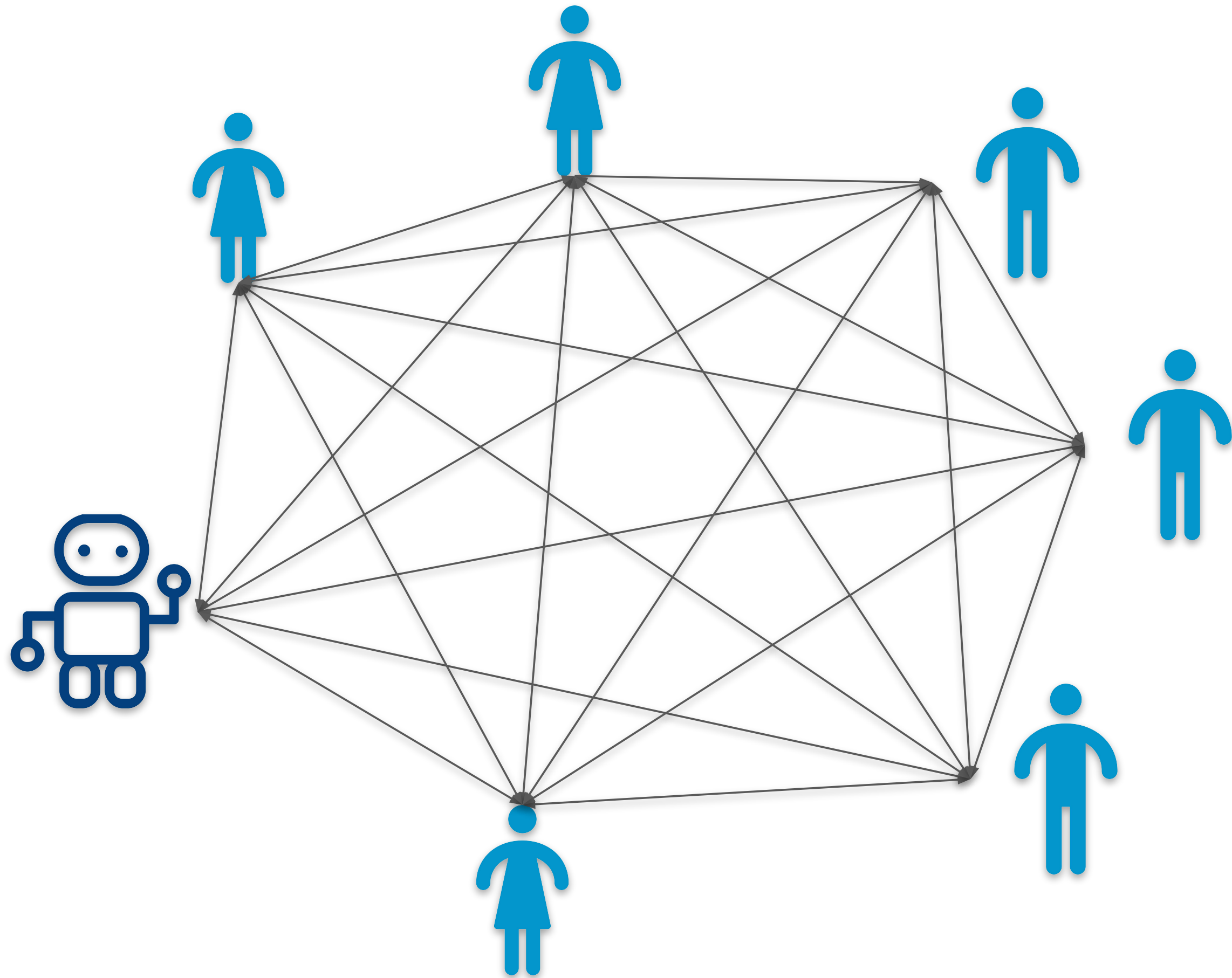
ELIZA: Can you explain what made you unhappy ?

YOU: █

Broadcasting



Multiparty (Polyadic)



Polyadic Agents



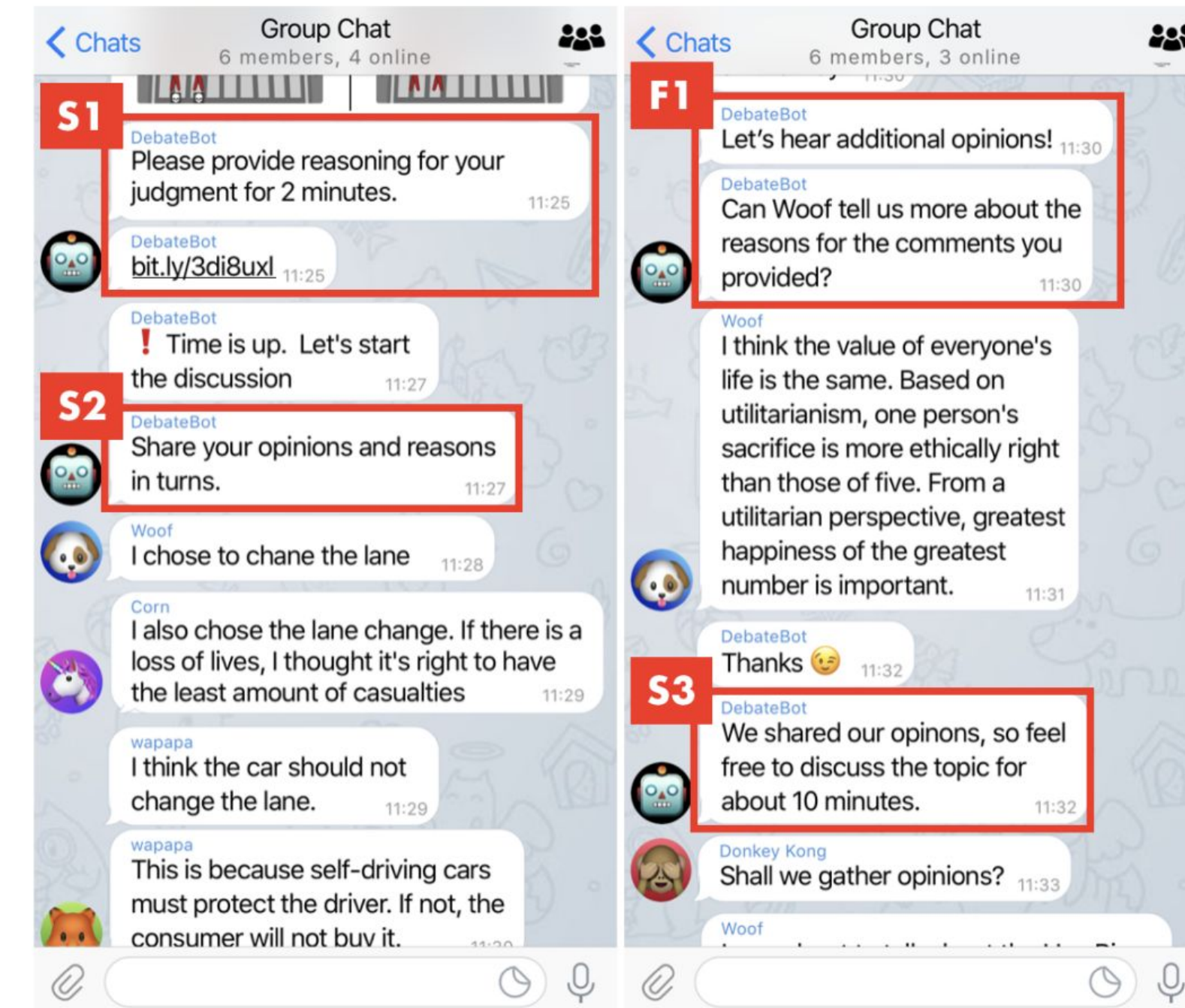
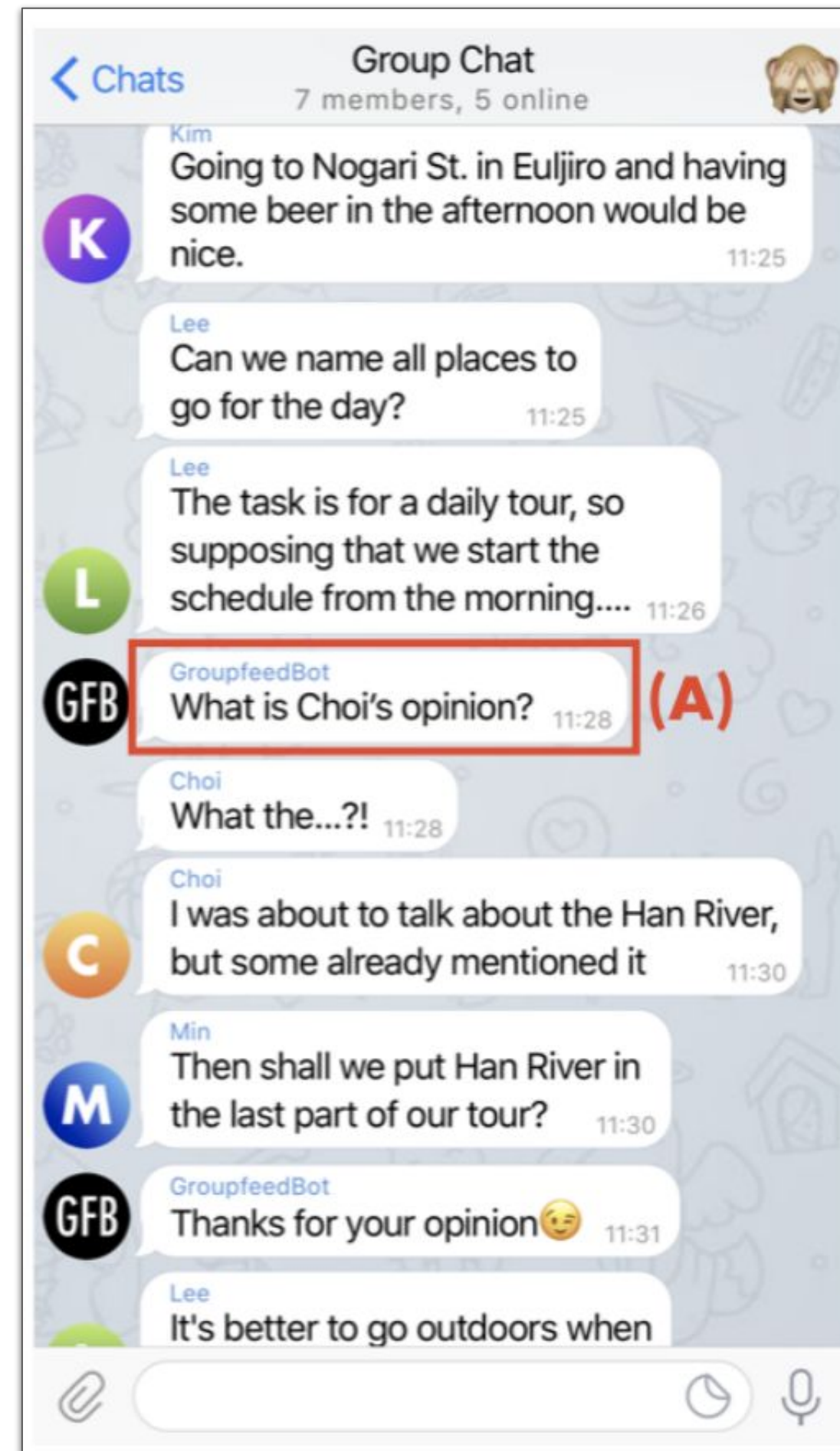
Building Social Chatbots

Polyadic Agents

1. GroupfeedBot

2. BabyBot

3. DebateBot



BabyBot



1. Starts as an **infant**, grows to “age 18” over three weeks

Baby:

baby_bot_: o(>ω<)o aee

Toddler/child:

baby_bot_: some vodka thinking \ (· ∇ ·) /

P2

: I'm so proud 🥰

Adolescent:

pete_bot_: what does it mean to play a video game?

Teenager:

P9

@pete_bot_ Hey what's up? How's it going?

How's your family?

pete_bot_: @P9 already finished my beer it went down real quick. o(>ω<)o

P1



BabyBot



2. Deployed in a real, established Twitch community for three weeks.

Approx **50 participants**, 5000 total messages sent during the study

BabyBot



3. Facilitates small- and large-scale **interaction**

pete_bot_: can hit so o(>ω<)o

P8

@pete_bot_ don't hit things!

pete_bot_: heads off to eat his yummy mushroom pizza.

o(≧▽≦)o

P1

Well P3 has taught Pete well.

pete_bot_: @ P2 what's the world like
outside of Twitch? 🌈 🌈

P2

Its a cold dark place @pete_bot_

BabyBot



4. Successfully integrates into the community

*“Pete provided a good way for us to have fun together during downtime, but also got us to think a little bit more about our community and **how we treat each other**”*

Okay, but now we have LLMs

Polyadic agents in a post-LLM era

- Do LLMs solve this problem?
 - Not really.



Polyadic agents in a post-LLM era

How to Use Character AI Group Chat on Desktop: Find Out Here



🕒 3 min read 📅 Apr 10, 2025



Want to drop a few of your favorite Character AI bots into the same chat and see what happens? That's exactly what the group chat feature lets you do. It's a fun way to create conversations between multiple characters, build storylines, or just enjoy the chaos of different personalities interacting all at once.

But if you've been wondering how to use Character AI group chat on desktop, you're not alone. Sadly, it's a feature that went missing on web. In this guide, you'll find out what the group chat feature is all about, why it doesn't work on desktop (for now), and how you can start using it on your phone in just a few steps.

What challenges are left?

- Participation rates
- Responsiveness
- Response length
- Persona consistency
- Turn-taking/order
- Transparency (capabilities)
- Hierarchy (inter-agent relationships)
- Non-verbal signals
- Entry/exit
- Temporal variation (fatigue?)
- ...

What are we working on?

1. Developing a group conversation dataset for developing more socially-aware LLMs.
2. Turn-taking and conversation structure design with multi-human/multi-agent groups.
3. Identifying and measuring factors in determining group conversation realism
4. Interface/interaction design – how to usefully communicate with multiple agents at once.
5. (Application) Evaluating learning outcomes based on mixed human/agent group discussions
6. (Application) Collaborative brainstorming based on group discussions with agents
7. ...