Systems for Improving Online Discussion

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Problem:

The Internet has improved how we do many things together.
Yet it seems like **discussion** has progressively worsened online.

What are the problems with online discussion today?

1 **Scale** of conversation and participants

2 **Lack of context**, overload, discussion siloes

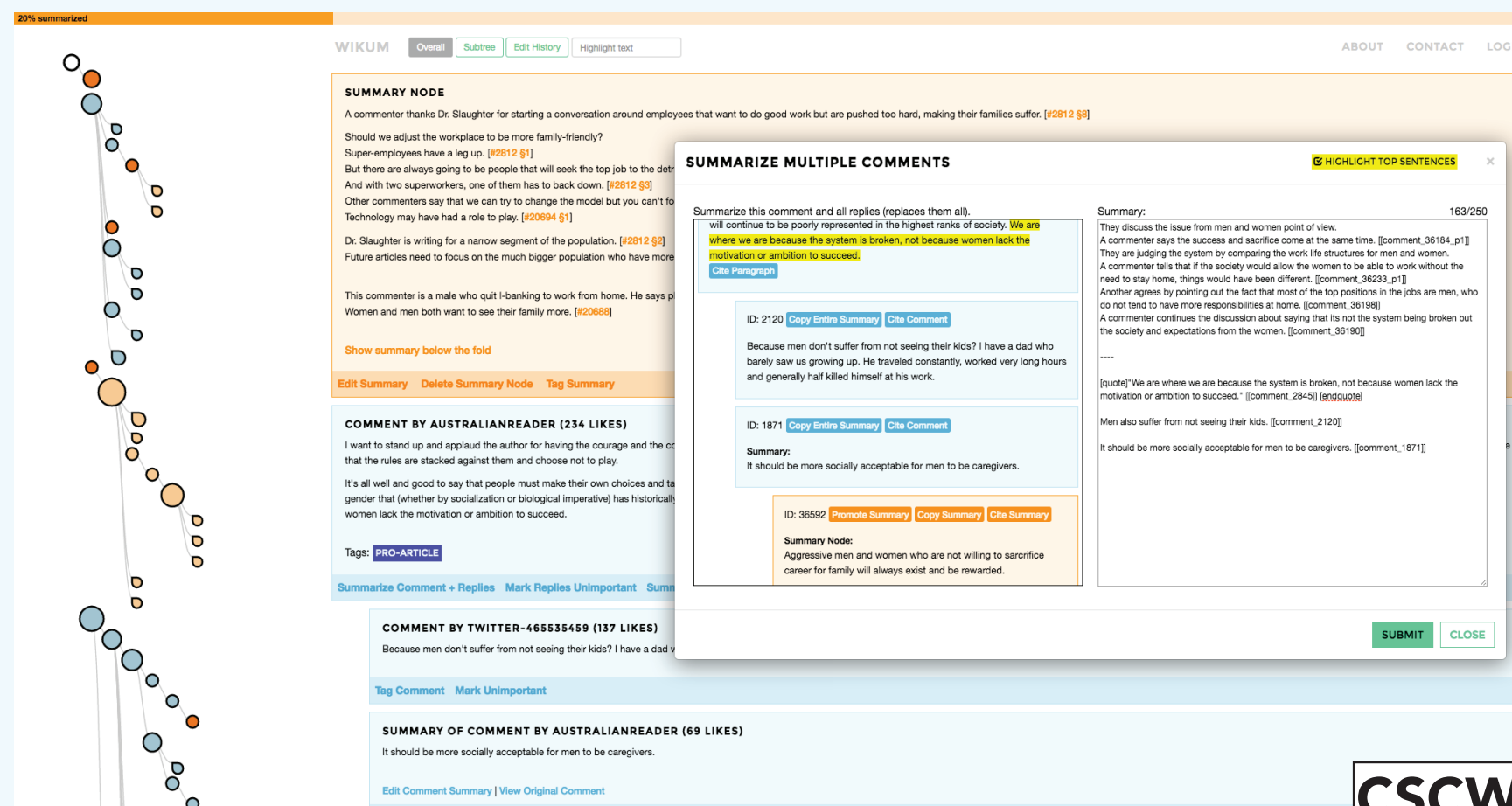**3** **Diversity of people**, leading to tensions, fights, harassment

Solution:

People are adept at managing information and tailoring experiences.
We need **human-centered tools** to give control back to people.

What are the ways we can improve online discussion?

A Make sense of discussion with **summarization**

B Situate messages in context using **annotation**

C Give finer-grained control over **delivery**
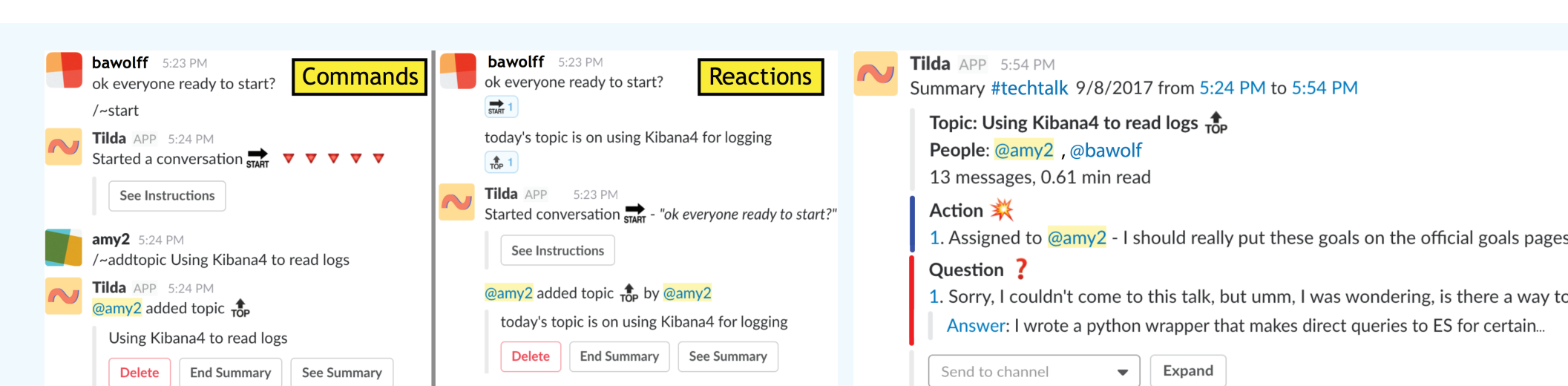

A Summarization Systems

CSCW '17

Wikum: A tool for collectively summarizing and organizing threaded discussions, using **recursive summarization** to break up the work.

1 Manages **scale** by reducing threads to read. Allows readers to explore hierarchically.

2 Provides **context** by bridging discussion and wiki summary.

3 Mitigates **diversity**, as summaries are holistic overview, promoting reflection.

Tilda: A tool for collectively marking up chat conversations to create sets of running meeting notes. Notes live in chat and are linked back.
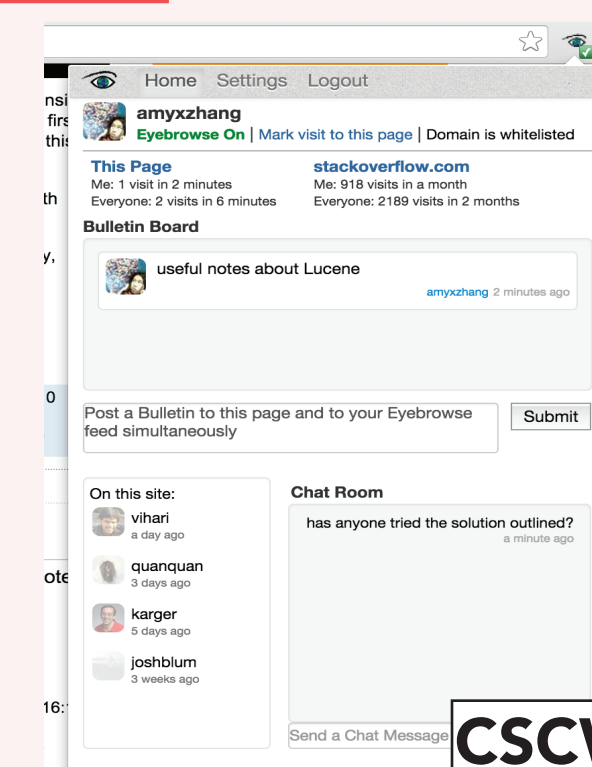
1 Manages **scale** by reducing chat messages to read. Allows readers to decide what conversations to read.

2 Provides **context** by bridging original chat log and summary meeting notes.

Coarse Discourse: A technique for characterizing discussion chains using coarse discourse acts.

1 Manages **scale** by automatically characterizing discussion threads into types to help summarization.
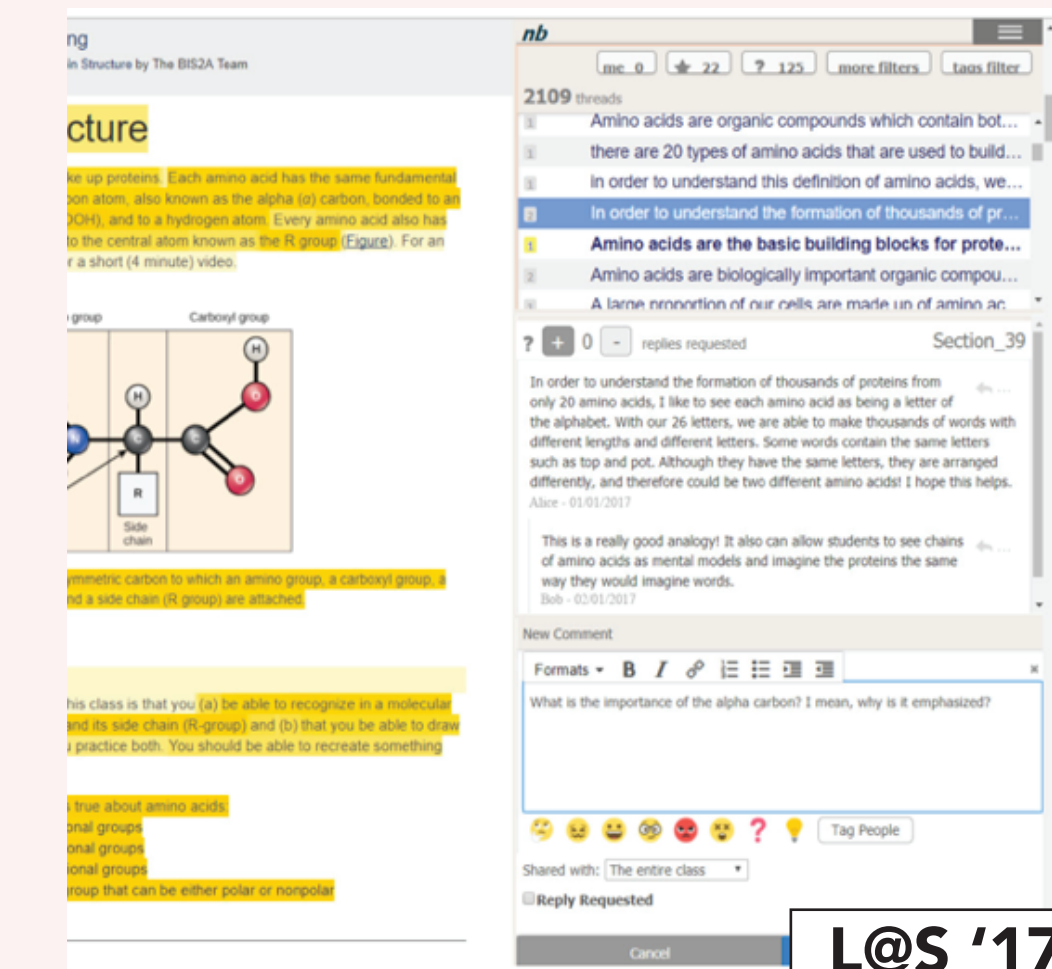
ICWSM '17

B Annotation Systems

Eyebrowse: Annotate web pages with comments in the margins. Bump into friends and chat on the page while browsing.

2 Provides **context** by presenting messages and chat on pages they are associated with.
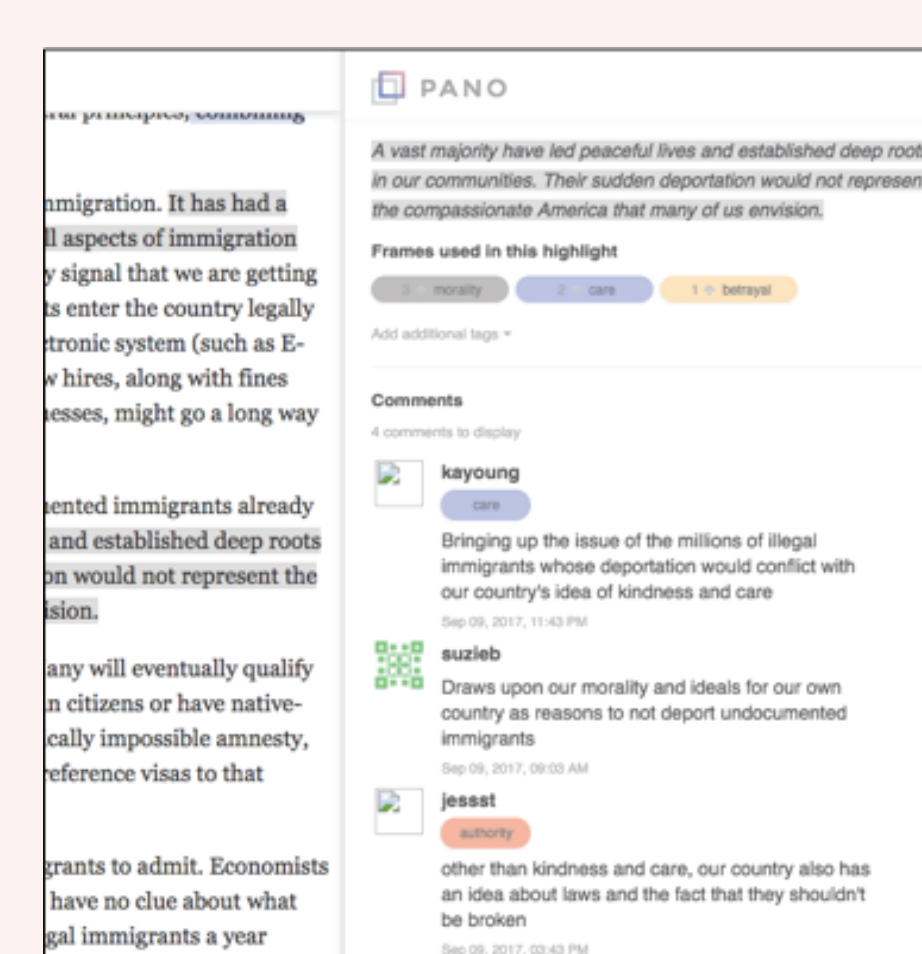
CSCW '16

Nota Bene: Annotate textbooks with discussions in the margins. Self-annotate messages with emojis to signal to teachers and create a heatmap over the text.

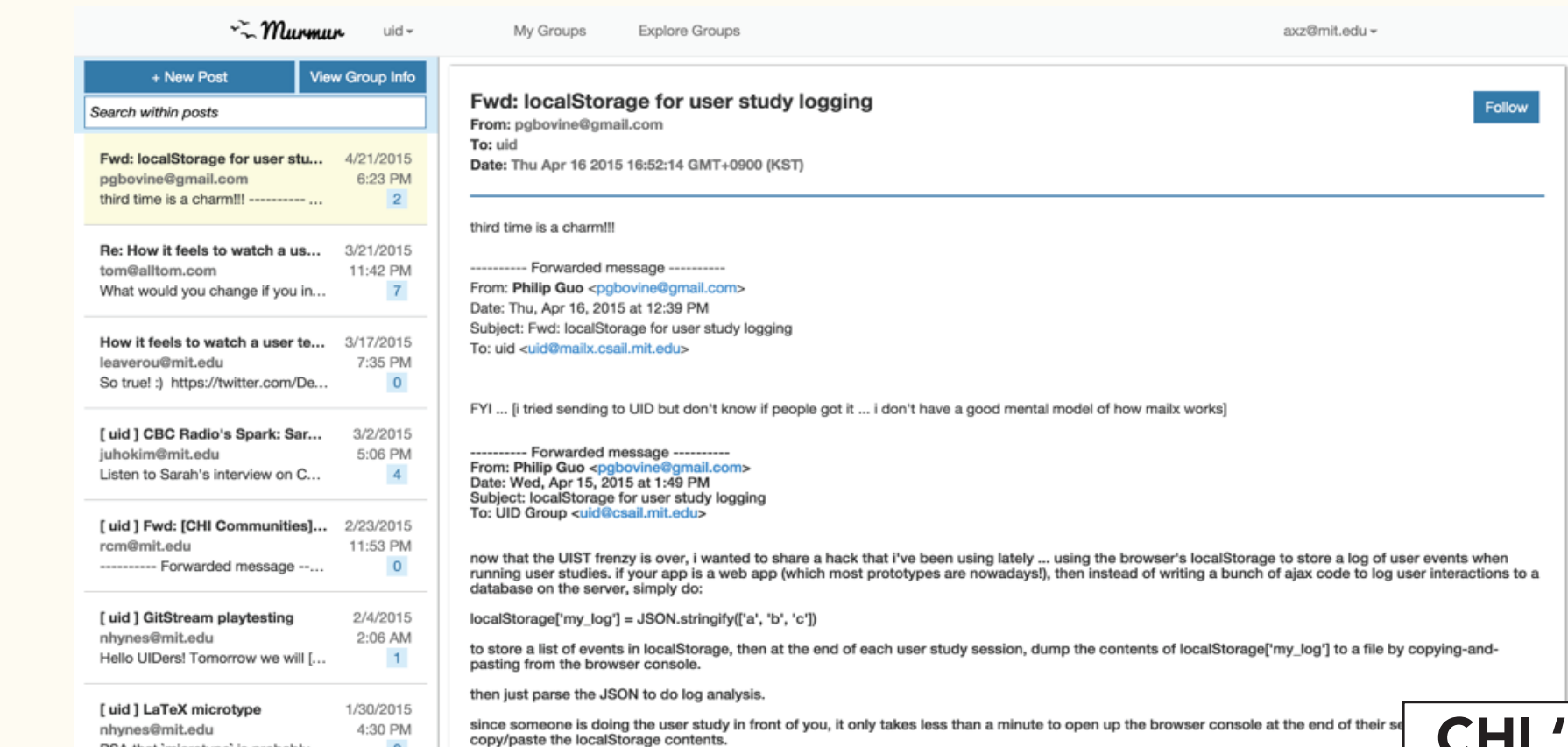**1** Manages **scale** when there are too many annotations. Emoji signals create heatmap and help teachers.

2 Provides **context** by highlighting and presenting relevant part of original textbook with each message.

L@S '17

Pano: Annotate articles and comments with moral framing to teach readers about framing and bridge ideological divides.

2 Provides **context** by highlighting framing of article and comments.

3 Mitigates **diversity** by promoting empathy towards other sides.
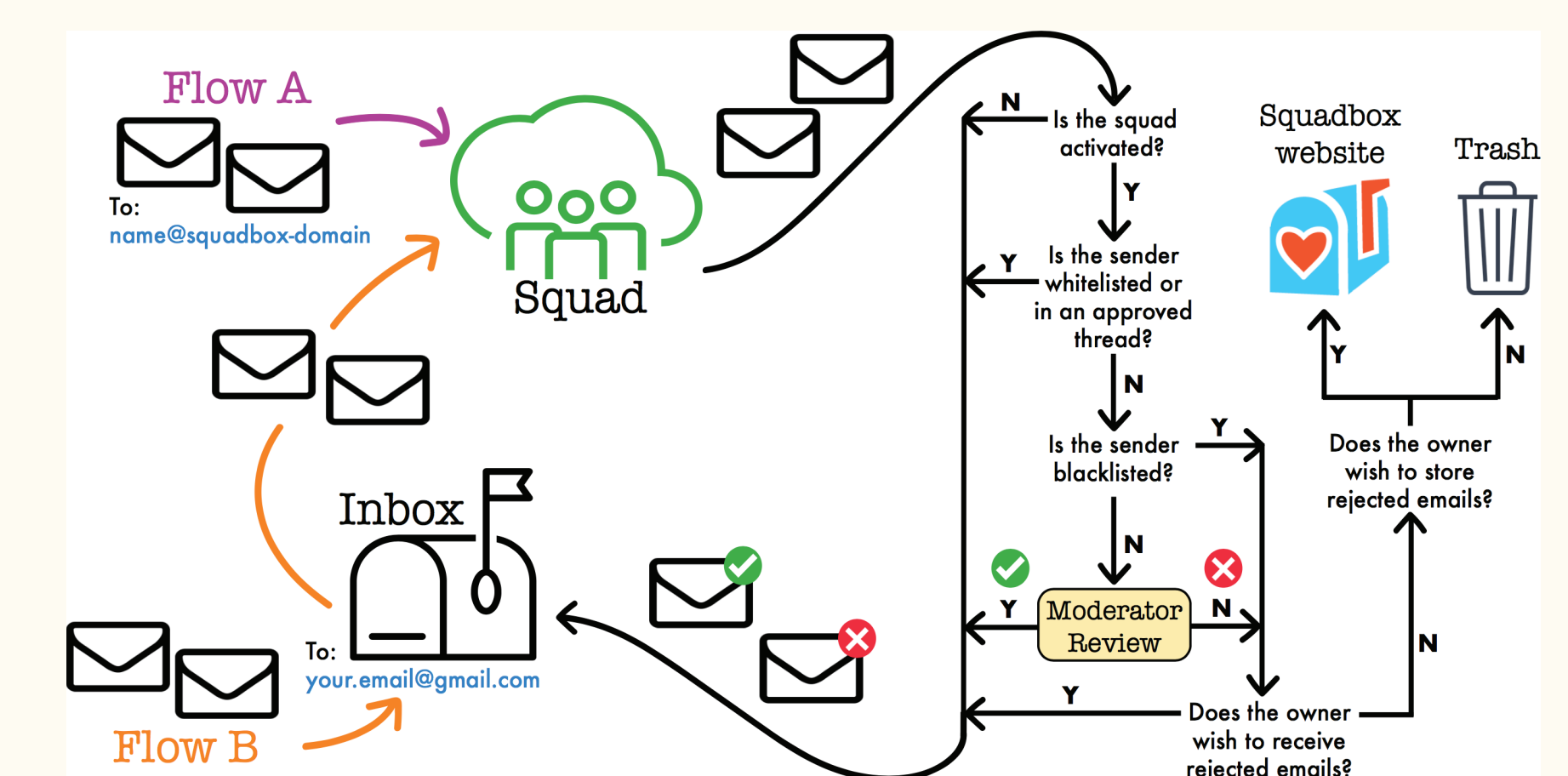

C Delivery Control Systems

CHI '15

Murmur: Reimagining the mailing list to allow group participants to more finely control what messages they receive, to whom their own messages go, as well as how.

1 Manages **scale** by letting readers control messages coming in and letting writers control their audience.

3 Mitigates **diversity** by allowing different norms of posting to co-exist on a list.

Squadbox: Helping people facing harassment in their inboxes by using **friendsourced moderation**.

3 Mitigates **diversity** by allowing people experiencing harassment to defend themselves from attackers while still using the same platform.