Methods and Systems for Large Group Chat Conversations

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BACKGROUND

In today's modern computing environment, the growth of internet speeds and web-friendly devices have enabled a newer generation of telecommunication technology and practice. Electronic chat (messaging) applications have become a common tool for both synchronous and asynchronous communication because of their ease of use and flexibility. Electronic group chat has also become a common tool to facilitate group discussion, including teaching, mentoring, and decision-making. Group chat is a feature in many popular business and social apps that support audio/video web-conferencing, including Zoom, Google, Microsoft, and Facebook. Typical web-conference software may include a window containing sub-windows for a video, presentation, and/or group chat, etc. However, group chat today is limited in its ability to engage all users in a discussion, especially as the group size grows. In a large group chat, if users are all engaged, the resulting firehose of messages makes it impossible to have a coherent conversation. For conveners and participants alike, the results range from mild distraction to unstructured noise, leading people to disengage with the conversation and/or miss important messages, which limits the usefulness of any platform's group chat feature.

TECHNOLOGY DESCRIPTION

To help address these challenges in electronic group chat, investigators at UC Santa Cruz (UCSC) have developed a new approach to conversational user experience and interface for large group interactions, with specific focus on using it for better web-based mentorship. Through conceptualizing conversations as composed of not only individual messages, but also multi-person conversational units that collapse large numbers of small but related conversational exchanges into single conceptual units in the main dialogue, the UCSC results show that it is possible to obtain both a coherent linear flow of conversation while also engaging all users in non-linear conversational exchanges that can be concisely summarized computationally and built on in the main conversation. The team's proof-of-concept uses custom algorithms using natural language processing and graph-based techniques, along with elicitation of mentee similarity labels, to make the clustering-based multi-person conversational units.

APPLICATIONS

- business IT
- education IT
- social platforms
- web-conferencing

ADVANTAGES

- no special hardware or specialized computer
- platform agnostic

INTELLECTUAL PROPERTY INFORMATION

Patent Pending

RELATED MATERIALS

- Patent Pending

CONTACT

Marc Oettinger
marc.oettinger@ucsc.edu
tel: 831-502-0253.

OTHER INFORMATION

KEYWORDS

group chat, large group chat, aggregation, electronic chat, messenging, natural language processing, NLP

CATEGORIZED AS

- **Communications**
  - Internet
- **Computer**
  - Software

RELATED CASES

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University of California, Santa Cruz

Industry Alliances & Technology Commercialization

Kerr 413 / IATC,

Santa Cruz,CA 95064

Tel: 831.459.5415

innovation@ucsc.edu

https://officeofresearch.ucsc.edu/

Fax: 831.459.1658