USC Institute for Creative Technologies

Conflict Scenario

2022 - Current Project Leader: Dr. Jonathan Gratch



Background

Conflict is inevitable between individuals, groups, organizations, and nations. To the astute observer, conflicts between others reveal the interests, personalities, values, and tactics of future partners or adversaries. To the astute practitioner, conflicts provide an opportunity to extract concessions or repair threatened relationships. Too often, conflicts escalate out of control when parties misunderstand each other's interests, personality, values, and tactics.

This project collects multicultural corpus (focusing on differences between the US and Mainland China), and develops AI methods that can lend insight into how individual and cultural factors shape conflicts and to support data collection and analysis at scale.

Objectives

- Develop a large multinational, multilingual corpus of dispute dialogs:
 - o Focusing on US and China but including over 70 counties
 - o Including measures of individual personality, cultural values and individual preferences
 - o Measuring subjective and objective outcomes of the dispute
- Develop AI methods
 - o Predict conflict processes and outcomes from personality, culture and individual preferences
 - o Predict personality, culture and individual preferences from observing dispute processes and outcomes
 - o Advance general AI methods for reasoning about social conflict
 - o Test the validity of social science theories of conflict
- Develop AI agents that emulate the behavior of human participants

Results

- Successfully collected a corpus of 7000+ participants from 77 countries
- Developed and validated algorithms to automatically recognize emotion
- Demonstrated the important role of expressions of anger and compassion in conflict escalation and de-escalation
- Develop models that can predict, at early stages, if a conflict will escalate into an impasse

Next Steps

• Initial emphasis was on text dialogs. Future work emphasizes multimodal communication (e.g., video and voice analysis)

Related publication: James Hale, Sushrita Rakshit, Kushal Chawla, Jeanne Brett, and Jonathan Gratch. KODIS: A Multicultural Dispute Resolution Corpus. 2025 Annual Conference of the Nations of the Americas Chapter of the Association for Computational Linguistics (NAACL), Albuquerque, NM 2025

Published academic research papers are available from <u>https://ict.usc.edu/research/publications</u> (Search engine keyword: USC ICT Publications)

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