

CS280r Project Update

Group Meeting Facilitation: Implementation of an Artificial Mediator

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1. Update

We have decided to focus on the agenda setting goal from the project proposal. As the scope of this task is still fairly broad, after speaking to Barbara, we have decided to study a content generation platform that could in theory be applied to the meeting agenda setting. The power of crowd-sourcing is such that we are aiming to source opinions from the entire team due to the importance of including items in the agenda that reflect the needs of the individuals in the team (Schwartz, 2015).

Specifically, we will be building on work from Hahn et al. (2016) and (Caragiannis et al., 2017) to firstly curate and identify salient themes within a topic and thereafter select the correct subset that should be studied further (or included in a meeting agenda). As the meeting setting is highly qualitative and running a specific experiment may present difficulties, we have constrained the scope of this project to generating the most relevant subset of topics from a given news article. We will be using articles that attempt to persuade readers to a certain viewpoint. However, the arguments made are not necessarily equally convincing to all people and thus we are looking to select the optimal subset of logic that is required to formulate a convincing argument. To this end, we will use a content generation step, similar to what we saw in the Knowledge Accelerator where ‘team members’ will be required to select relevant topics from the given article. We will then use two different voting rules to aggregate the opinions of the subjects to create the optimal subsets. The one voting rule will be based on the work by Caragiannis et al. (2017) and one will be the naive approach of selecting whichever topics receive the highest number of votes in an approval voting setting (with ties broken at random). We can also compare this against a baseline of an individual creating a topic summary of the entire document.

R. Schwartz, How to Design an Agenda for an Effective Meeting, Harvard Business Review .

N. Lehmann-Willenbrock, J. A. Allen, S. Kauffeld, A sequential analysis of procedural meeting communication: How teams facilitate their meetings, Journal of Applied Communication Research 41 (4) (2013) 365–388.

N. Hahn, J. Chang, J. E. Kim, A. Kittur, The Knowledge Accelerator: Big picture thinking in small

pieces, in: Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems, ACM, 2258–2270, 2016.

I. Caragiannis, S. Nath, A. D. Procaccia, N. Shah, Subset Selection Via Implicit Utilitarian Voting, *Journal of Artificial Intelligence Research* 58 (2017) 123–152.