Innovating Large-scale Discussion and Consensus Support Systems based on Agent Technologies

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Much attention has been focused on the collective intelligence of people worldwide. Interest continues to increase in online democratic discussions, which might become one of the next generation methods for open and public forums. To harness collective intelligence, incentives for participants are one critical factor. If we can incentivize participants to engage in stimulating and active discussions, the entire discussion will head in fruitful ways and avoid negative behaviors that encourage "flaming." "Flaming" means a hostile and insulting interaction by Wikipedia. In our work, we developed an open web-based forum system called COLLAGREE that has facilitator support functions and deployed it for an internet-based town meeting in Nagoya as a city project for an actual town meeting of the Nagoya Next Generation Total City Planning for 2014-2018. Our experiment ran on the COLLAGREE system during a two-week period with nine expert facilitators from the Facilitators Association of Japan. The participants discussed four categories about their views of an ideal city. COLLAGREE registered 266 participants from whom it gathered 1,151 opinions, 3,072 visits, and 18,466 views. The total of 1,151 opinions greatly exceeded the 463 opinions obtained by previous real-world town meetings. We clarified the importance of a COLLAGREE-type internet based town meeting and a facilitator role, which is one mechanism that can manage inflammatory language and encourage positive discussions. While facilitators, who are one element of a hierarchical management, can be seen as a top-down approach to produce collective discussions, incentive can be seen as a bottom-up approach. In this talk, we also focus on incentives for participants and employ both incentives and facilitators to harness collective intelligence. I propose an incentive mechanism for large-scale collective discussions, where the discussion activities of each participant are rewarded based on their effectiveness. With these incentives, we encourage both the active and passive actions of participants. In this talk, I will present current results about this project.