CSCE 475/875 Multiagent Systems

**Game Day 2: Voting Day**

**Assigned: February 27, 2020 Game Day: March 10, 2020**

Introduction

Welcome to Soh’s Agency for Movies Preference Aggregation (SASPA). Note that this agency is simply collecting information on movies, in an efficient and effective manner. In a way, voters (or agents) are non-strategic – as each voter should reveal their preferences truthfully as nothing is to be gained either way.

This document is supplementary to Game Day 2: Voting Day assignment.

Procedure

Each team will be given/provided the same list of movies on Game Day site. Then, Game Day Monitor will announce the beginning of each round in class. For each round, each team member is required to provide their voting to the Game Day site. **NOTE: The two members of each team are assigned <TeamName>-1 and <TeamName>-2. Please make sure that you decide on which member is designated member 1 and which is designated member 2.** After you have selected movie(s), click ‘vote’ at the bottom of page to submit. Each team member can submit its vote only ONCE for each round.

Then the Game Day site will aggregate the votes. After the Game Day Monitor receives all votes from all teams, the Game Day Monitor will activate the “Current Round Results” link on the voting page. Then, each team can click on that link to view all the votes.

Then, for Round 1, 2, 3, 5, and 6, each team will e-mail the winner to the Game Day Monitor (lksoh@cse.unl.edu).

For the “winner” e-mail, a simple note would do**. Please do indicate your Team Name and Member designation and the selected winner clearly in your e-mail. Also please make sure to indicate your Team Name in the subject line of the email**.

**Important**: Each team member must remember to keep their voting consistent through the rounds, that is, a team member is ***not*** allowed to change its preference order (or vote for a less preferred candidate) from round to round.

**The timestamp of your e-mail (sent) will serve as the time stamp that we use to judge your “timeliness”.**

Please come prepared and know all the six voting definitions well. We will not answer any questions about the voting definitions and you should not ask questions about any either.

Further, you are allowed to submit the winning candidate (movie) for a round only once. Any wrong answer will result in a penalty of 2 points from your final grade for the Game Day.

Here is the link to the Game Day site:

**To be announced on Game Day**

**Note**: The list of movies for you to vote on will be provided on Game Day.

Round 1: Plurality Voting

* Please copy and paste your vote and movie titles into this space.
* Selected winner(s) after aggregating all votes: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Round 2: Cumulative Voting

* Please copy and paste your vote and movie titles into this space.
* Selected winner(s) after aggregating all votes: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Round 3: Approval Voting

* Please copy and paste your vote and movie titles into this space.
* Selected winner(s) after aggregating all votes: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Round 4: Borda Voting

Submit your preference ordering using n-1 points for the highest ranked candidate, n-2 points for the second highest candidate, and so forth, and finally 0 point for the last candidate.

* Please copy and paste your vote and movie titles into this space.
* Selected winner(s) after aggregating all votes: \_\_\_\_\_\_\_\_\_\_\_\_\_\_
* The preference ordering after aggregating all votes (please copy and paste the ordering into this space)

Question 1. Using the above aggregated preference ordering, revisit Round 4 results, is the Condorcet condition satisfied? (Justify your answer.)

Question 2. Given the Borda voting results, is there a spoiler item such that its remove from the list would cause significant changes to the preference ordering? (Justify your answer.)

Round 5: Plurality with Elimination

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| --- | --- | --- | --- |
| Round | Eliminated movie(s) | Teams that had to revote | Movies that received the re-votes |
| 1 |  |  |  |
| 2 |  |  |  |
| 3 |  |  |  |
| 4 |  |  |  |
| 5 |  |  |  |
| 6 |  |  |  |
| 7 |  |  |  |
| 8 |  |  |  |
| 9 |  |  |  |
| 10 |  |  |  |
| 11 |  |  |  |
| 12 |  |  |  |
| 13 |  |  |  |
| 14 |  |  |  |
| 15 |  |  |  |
| 16 |  |  |  |

\* Since each team is allowed to re-vote only if their candidate is eliminated, it is possible that you will end up having the same vote for some or even all rounds. For tie-breaking, use the alphabetical order. For example, “1917” is alphabetically ahead of “Joker”, “Jojo Rabbit” is alphabetically ahead of “Joker”. And those who had voted for them (to be winners) are to revote.

* Selected winner(s) after aggregating all votes: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Round 6: Pairwise Elimination

Below is the pairwise elimination order (schedule or agenda) for the Game Day. Please fill out this table. Note: The Pairwise Elimination schedule will be provided on Game Day).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Candidate** | **Round 1** | **Round 2** | **Round 3** | **Round 4** |
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For this round, no new votes will be solicited since the preference ordering of all teams will have been given to each team in Round 4.

* Please fill in the winner for each round all the way to the final.
* Selected winner(s) after aggregating all votes: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Question 3. Did the above pairwise elimination order cause an item that Pareto-dominates another candidate to finish behind the dominated candidate? (Justify your answer.)

Question 4. Provide another pairwise elimination order that would cause an item that Pareto-dominates another candidate to finish behind the dominated candidate?

 Lessons Learned

Notes: