Methodology for the Voting Advice / Matching

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Introduction

smartvote Tibet is a so-called Voting Advice Application (VAA). It allows users/ voters to compare their own policy preferences based on a comprehensive questionnaire with those of candidates running in the 2021 Sikyong and 17th Tibetan parliamentary elections. After answering the questionnaire voters receive a list of candidates ranked according to their congruence with the voter's answers.

Questionnaire

The smartvote questionnaire includes 37 questions on a wide range of policy issues. It has been drafted by "Project Democracy", an association formed by a group of Tibetans, who have backgrounds in various fields, through an inclusive and participative approach. The editorial process has been accompanied by the scientific network Politools, as well as by an advisory group. The questions are primarily focused on specific policy issues, and a few questions relate to more general ideological positions. One goal of this project is to help shift the focus of voters towards an issue-based discourse.

Since some policy issues may not be widely understood, a short text containing background information on the issue, as well as pro and con arguments is provided underneath each question. Candidates have the option of commenting on each of their answers in order to provide it more nuance or clarity about their answers.

All candidates running in the 2021 Tibetan elections have been invited to participate in the tool. In order to be participate in *smartvote Tibet*, candidates have to answer all 37 questions. Voters on the other hand can decide to skip some questions. Those questions to which they did not respond will not be taken into account in their matching results with candidates. Responding to more questions will, however, provide more precise results.

The following table summarizes the answer options available to candidates and voters, as well as the numerical values assigned to these answer options:

Table 1: Answer options and their numerical values

Question/Answer options	Candidates	Voters
Standard questions		
"Yes"	100	100
"Rather yes"	75	75
"Rather no"	25	25
"No"	0	0
"No answer"		X

smartvote TIBET

Calculating the matching result

To calculate the congruence between a voter and a candidate running for the 2021 Sikyong and 17th Tibetan parliamentary elections, *smartvote Tibet* uses the Euclidean distance (geometric distance in a multidimensional space) as a measure.

In a first step, the total distance between a voter and candidate is calculated taking into account all questions answered by the voter:

$$Dist(v,c) = \sqrt{\sum_{i=1}^{n} (v_i - c_i)^2}$$

Dist(v,c): Total distance between a voter (v) and a candidate (c) over i questions.

v_i: Voter's answer on question i.
c_i: Candidate's answer on question i.

In a second step we calculate the (theoretically possible) maximum distance between the voter and the candidate as the sum of 100 multiplied with the specific weights per question over all questions answered by the voter.

$$MaxDist = \sum_{i=1}^{n} (100)$$

MaxDist: Maximum distance between a voter (v) and a candidate (c) over n questions.

Finally, we subtract the total distance normalized by the maximum distance from 1 in order to receive a congruence measure instead of a distance measure. This measure is multiplied by 100 and presented as a matching in percentage.

$$Matching(v,c) = 100*(1 - (\frac{Dist(v,c)}{MaxDist}))$$

It is important to note that this value represents a measure of geometric correspondence. This value cannot therefore be considered as the proportion of the questionnaire proposals to which the users responded in the same way as the candidates. Thus, a 70% match between two profiles does not mean that a candidate has answered 70% of the questions in the same way as a user.

For more information on the methodology, please contact:
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