**Robot-Citizen, or automated data-driven decision support for elections**

László Pitlik (sen) (<https://orcid.org/0000-0001-5819-0319>), Adrienn Muhari, Attila Jónás, Zsófia Hirschmann, Zsuzsanna Kiss

Emails: pitlik@my-x.hu, muhari.adrienn@aasystems.hu, [jonas.attila@aasystems.hu](jonas.attila%40aasystems.hu), lamoralite@gmail.com, kopasz.zsuzsanna@gmail.com

Kodolányi János University and MY-X research team Hungary

**Abstract**

Starting point: The project we are presenting is a further reflection on an existing research area (see: <https://miau.my-x.hu/myx-free/bevezetes.html> ), developed based on evidence-based comparative modelling. Our project was carried out within the framework of the last semester group work at the Kodolányi János University of Budapest, Faculty of Business and Management, Digital Economy.

Aims/tasks: Within the framework of the Robot-Citizen project, with the help of a student working group, we implemented (from 12.12.2021 to 15.11.2022) the processing of data from open, internet-based databases (see: OECD and DBnomics databases) according to specified filtering criteria. Then structuring of this time-series dataset. After cleaning the data, the results calculated on the basis of the value estimates produced for the parallel database according to the OAM model were compared with the fact values for countries as objects and indicators as attributes over a 10-month period. This was done in order to show, by indicator, whether (statistically imperceptible) force fields were built up to the detriment or advantage of the average citizen as a result of the work of the political actors (e.g., governments) in question.

Methodology: The point of a risk assessment based on a parallel database is: if all data except for one indicator is taken as fact for all periods for all countries, what is the estimate of the indicator under consideration per country and per period under the most flexible modelling logic (COCO-MCM: <https://miau.my-x.hu/myx-free/index_e4.php3?x=e04> ). If the fact-estimation comparison is close to zero error, or if the logic of the indicator is interpreted as an advantage for the average citizen, then this invisible but instinctive force field perceived by the human voters should have a stabilizing effect on the government, while the reverse would be the case, where a change of government could be expected in the near future. In posing the problem for this project, our more complex goal was not simply to process arbitrary/unbiased statistics, but to use the published data to determine the probability of a change in political power through economic effects. What is more the significant part of this process has already been automated by the working group (see: <https://miau.my-x.hu/miau/285/e_gazsag_2022/?C=N;O=A>), and the whole process can be automated (including the hermeneutic and visual presentation modules).

Results: The comparative analysis led to significantly more accurate predictions along the lines of the Robot-Citizen logic (see: <https://miau.my-x.hu/miau/291/e_gazsag_eredmenyek.pdf>) compared to the OECD, i.e. the OECD produced good:neutral:bad situation interpretations with a ratio of 3:1:3, whereas for Robot-Citizen the ratio was 5:0:2.

Future: Automation can be used to create a program that uses any similar fact-based, open-source data for objective comparative modelling. In the hands of the ordinary user, this application could be an efficient and objective analysis-based decision support program based on statements and visualization in the future, whose usefulness with relevance is supported by the upcoming European Parliamentary elections in 2024.

Demo Version: <https://miau.my-x.hu/miau/291/e_gazsag_program.pdf>