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HANDBOOK FOR AN EDUCATIONAL VOTING ADVICE APPLICATION

Kirsi Hantula,
Kalle Järvenpää,
Veikko Isotalo and
Silja Porkkala

Sitra Guide

Handbook for an Educational Voting Advice Application

Authors: Kirsi Hantula, Leading Specialist, Sitra; Kalle Järvenpää, Master of Arts (Art and Design), OpenVAA; Veikko Isotalo, M.Soc.Sc. and M.Sc. (Tech), University of Turku, and Silja Porkkala, Project Lead, Finnish National Youth Council and Youth Sector – Nuorisoala. The guide has been made as part of Sitra's Open voting advice application platform project.

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Table of contents

A voting advice application can educate, too 4

How does an educational VAA differ from other voting advice applications? 6

Key design principles of an educational VAA 8

Practical tips for implementing an educational VAA 22

Other VAAs with educational features 31

References 32

A voting advice application can educate, too

What?

You are looking at the Handbook for an Educational Voting Advice Application (VAA). Its purpose is to help you understand how a modern VAA can support citizens' ability to comprehend politics and lower the threshold for voting.

While voting advice applications have always aimed to promote these goals, recent research has deepened our understanding of the needs of different user groups. At the same time, technological development has opened new opportunities for creating more educational VAAs. For instance, the ethical and considered use of artificial intelligence within a voting advice application can enhance users' understanding of politics.

This handbook brings together the key principles that should guide the design and implementation of an educational VAA. You will also find practical examples of voting advice applications that have been implemented in accordance with these principles. The example VAAs have been published as part of Sitra's work (2023–2025) to develop a modular, open-source VAA platform in Finland. The open platform speeds up the publication of VAAs, reduces publishing costs, and provides flexible technical conditions for new VAA innovations, including the development of increasingly educational VAAs.

The guide also includes anonymous quotations collected from the VAA forum that convened regularly in 2023–2025. The forum brought together VAA experts in Finland to share knowledge and deepen collective understanding of VAA design, implementation and development.

For whom?

The Handbook for an Educational Voting Advice Application provides practical guidance for VAA publishers and developers, as well as for organisations considering the publication of their own VAA in the future. It also provides valuable insights for anyone who is more generally interested in how modern VAAs can support citizens' understanding of party politics and key societal issues.

"VAAs cannot solve the problems of democracy, but we must ensure that they do not reproduce or reinforce the forces that undermine it."

Why?

VAAs are widely used in certain European countries. In Finland, for example, the user base has doubled and diversified during the 2000s.

It is therefore surprising how little voting advice applications have evolved over their history, even though the need for political understanding and fact-based information is greater than ever in democratic societies. Today, a significant portion of people follow political events primarily through social media, where trust in societal institutions is increasingly polarised. As a result, political discourse has become sharper and more confrontational.

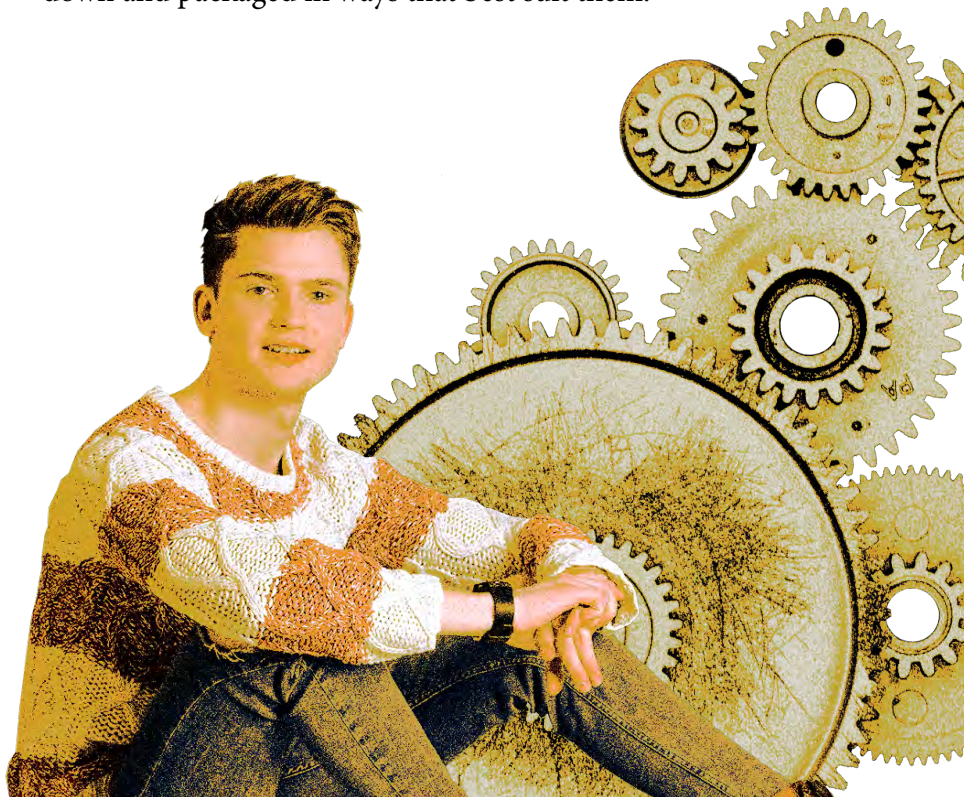
As public debate becomes more polarised, it is critical to ensure that people have access to well-grounded, accurate information on current political themes. An educational VAA responds to this need. It strengthens users' understanding of politics and societal issues in a way that is engaging and tailored to their needs.

How does an educational VAA differ from other voting advice applications?

The basic purpose of all VAAs is to help voters find the party or candidate that best matches their views. This applies equally to an educational voting advice application. The key difference lies in the assumptions made about the user's prior knowledge.

Traditional voting advice applications have often assumed that users have relatively high levels of political knowledge, as well as an understanding of the electoral and administrative system. An educational VAA makes no such assumptions. Instead, it provides reliable and impartial background information alongside each statement, helping users form their opinions.

Although an educational voting advice application is usually designed for a specific target group, the choices made in its design support all users and strengthen their political literacy. The background information is tailored to the needs of the target group, broken down and packaged in ways that best suit them.



An educational VAA increases understanding and lowers the threshold for participation

In practice, drawing strict distinctions between educational and traditional voting advice applications is artificial, because many modern VAAs already include at least some key features of educational VAAs. It is more useful to view the differences as a spectrum shaped by underlying design principles.

In an educational VAA, the most important guiding principle is the ability to educate. The goal is that users of an educational VAA gain more knowledge about politics, or at least about the topics highlighted in the application, than they had before.

At best, using an educational voting advice application can strengthen a person's internal political efficacy – their sense of how well they understand politics, can participate in public discussion, and can influence decision-making.

Key design principles of an educational VAA

The design of an educational VAA is guided by several important principles:

1. Listen to the needs of the target group
2. Give users agency
3. Make learning appealing

1. Listen to the needs of the target group

The starting point for designing an educational VAA is always a deep understanding of the expectations and needs of the selected target group. With the right design choices, a voting advice application can enhance the target group's understanding of politics and topical societal issues – and increase their willingness to use the tool.

For example, media consumption habits differ significantly across age groups, and these differences should be taken into account when designing a voting advice application. Likewise, socioeconomic status and level of education influence how strong a person's sense of internal political efficacy is. These factors should also be considered in the design of an educational VAA.

Remember the target group when selecting statements

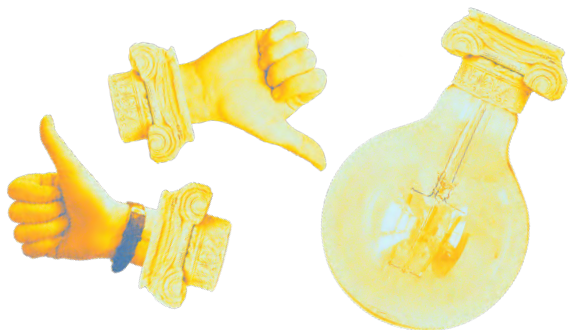
The needs and expectations of the target group are best met by involving them actively throughout the design and implementation process.

The publisher of a voting advice application holds significant power in choosing and formulating the statements included in the tool. These choices set the boundaries for which societal themes and perspectives appear in the VAA. For this reason, these decisions should also be made with the target group in mind.

For example, young people and pensioners may be interested in different societal issues, simply because their life situations differ. However, it is important to balance themes relevant to the target group with other socially significant and topical issues. This is also essential because the content of the statements inevitably shapes the candidate recommendations that the VAA will provide.

The wishes and expectations of the target group should also guide decisions related to the user interface. If the needs of the group require it, established interface conventions can – and should – be challenged. A VAA does not necessarily have to be text-based: for some groups, especially younger users, it may be more effective to present background information mainly through videos.

"The videos were an excellent addition: concise, informative and just right for first-time voters as well. Excellent work!"



EXAMPLE:

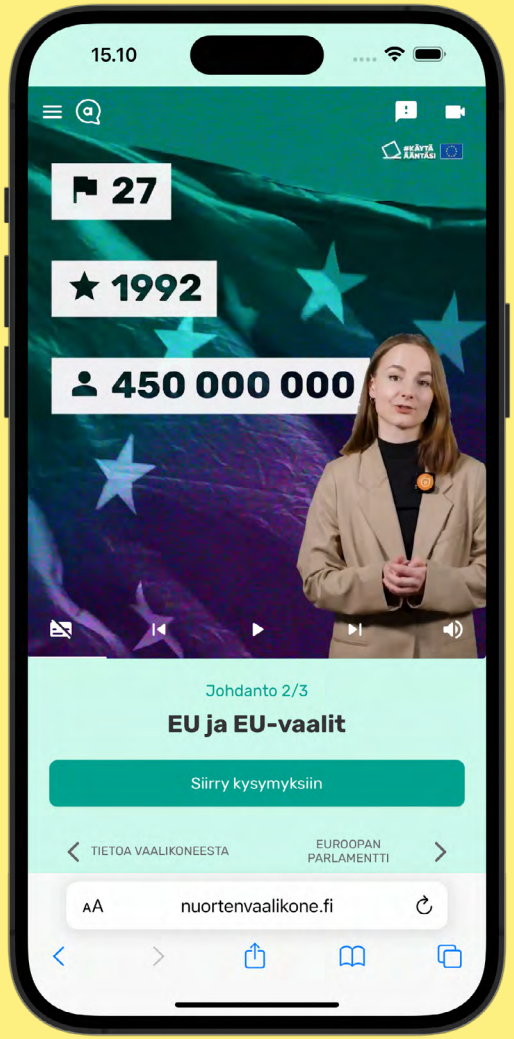
A video-based VAA increased understanding of EU issues

A video-format VAA was created in Finland for the 2024 European Parliament elections, designed especially for young voters. It differed from traditional voting advice applications in that background information was presented primarily through vertically filmed videos. Young people appeared in the videos, making them more relatable for the intended audience. If users preferred, the background content was also available in text format.

During the design phase, young people participated both in developing the user interface and in drafting the statements. Video format was chosen because young respondents overwhelmingly considered videos the best way to receive background information.

At their request, the videos focused primarily on the topics addressed in the corresponding statements. The explanatory video clips were also used in social media to promote the VAA.

"As a young voter, I admit I don't yet have a full understanding of all the topics, so the additional information really helps."



2. Give users agency

In an educational VAA, background information should always be easily accessible. At the same time, information must be provided in a way that does not make using the VAA slow or cumbersome. These goals can both be met by giving users sufficient control over how and when they access background information.

In practice, it may still be wise for the voting advice application to provide background information automatically rather than only upon request. Even then, the user must have the option to skip the explanations and choose how deeply they wish to explore the material. Ideally, the information is presented so that the key points can be understood at a glance, while more detail is available for those who want it.

Users' agency can also be strengthened in other ways. One recommended approach is to provide background information in multiple formats – for example, video, audio, or text. This allows users to choose how they prefer to learn. If a VAA primarily uses text-based explanations but also provides them in audio form, for example, this can help users who find reading slow or difficult.

3. Make learning appealing

One of the advantages of VAAs compared to other sources of political information is that they provide personalised recommendations based on users' own responses. Typically, a voting advice application recommends candidates or parties whose answers best match those of the user. While answering the statements, users also learn what political issues are relevant in the election and how different candidates and parties position themselves on them. An educational voting advice application can support and deepen learning by, for example, using clear, plain language.

Research on VAAs has also shown that users have fairly consistent information needs. They typically want explanations for the concepts used in the VAA statements and background information that helps them form their opinions on topical political issues (Kamoen & Liebrecht, 2022).

An educational VAA can support users by providing pre-formulated question–answer pairs that provide information about the issues being discussed. For example, these may address questions such as: "What is the current situation?" or "How would the proposed change affect things?"

TIP

Using AI in an educational VAA

Recent advances in generative AI have sparked interest in integrating AI into VAAs. One obvious application is to include a ChatGPT-like chatbot that users can ask about the statements and political themes. This is one way to strengthen the user's agency by allowing them to follow their own learning paths within the VAA.

If a publisher of a voting advice application chooses to include a chatbot, its implementation must be carefully considered. Chatbots trained on unrestricted data and connected to the internet are known to hallucinate and produce biased responses. Their training data often contains structural biases. As a result, their answers may be unreliable or politically biased.

A publisher can mitigate these risks by controlling the chatbot's data sources or by pre-producing and verifying all possible chatbot responses. If responses are pre-written, the chatbot can only answer a limited set of questions. However, in an educational VAA this may not be a significant problem, as users' questions tend to be quite similar and predictable. By anticipating these needs, the publisher can prepare accurate answers in advance and ensure the chatbot stays on topic.

Beyond answering questions, a chatbot can have other roles in an educational VAA. When a user opens the VAA, the chatbot could begin by asking which societal themes are most important to them. Based on this, the voting advice application could present statements in a personalised order – either according to the user's chosen themes or by prioritising the statements that contribute most significantly to calculating recommendations. This could speed up the process of providing candidate recommendations, particularly for users who do not want to spend a lot of time completing the VAA.

AI can also support the VAA publisher during the development of a voting advice application by helping draft text-based explanations or efficiently generating video or audio versions of those explanations, as well as infographics.

A VAA helps users understand their place on the political value map

In addition to issue-based political questions, an educational VAA can strengthen users' broader understanding of politics. Value maps used in VAAs can be particularly helpful. They assist users in recognising different ideological dimensions and understanding where they themselves are positioned.

Alongside the traditional left–right dimension, another important axis relates to socio-cultural issues, including liberal versus conservative attitudes, views on immigration, and positions on environmental and climate topics (Thomeczek et al., 2025). In Finland, political debate is also shaped by issues related to regional equality and minority languages.

Value maps are especially useful for new voters who are only beginning to form their political views. They help users grasp the differences between ideological dimensions. However, value maps must be designed with care. The statements chosen to represent each ideological dimension must be justifiable based on political science theory as well as candidates' and parties' responses in the voting advice application. If not, users may develop a distorted understanding of political values (Germann et al., 2015).

Beyond value maps, an educational VAA can also use other types of visualisations. For example, personalised, personality-test-style result views can help guide users to their recommendations. These can deepen users' understanding of their political profile and also serve as shareable content on social media.

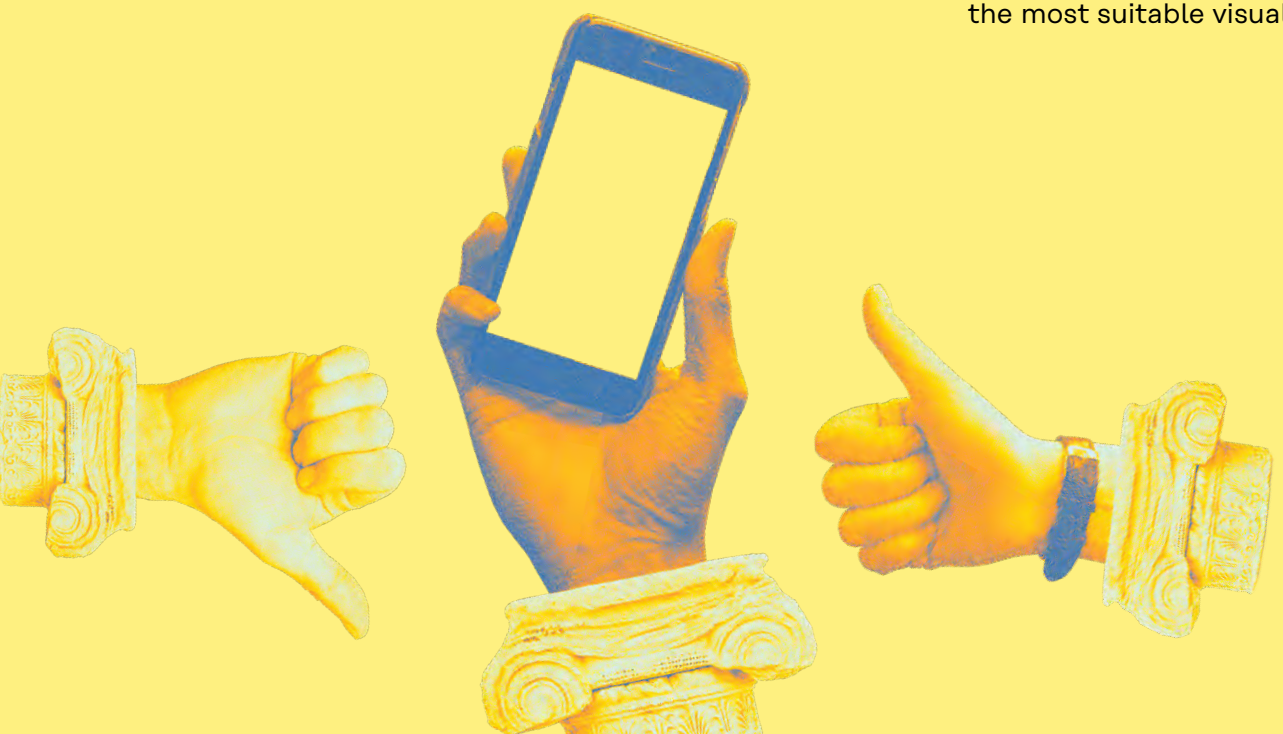
"This was absolutely great! I'm not very interested in politics as such, but you should always vote! Some questions in other VAAs feel really difficult, and the explanations don't help at all. Here everything was explained clearly and thoroughly!"

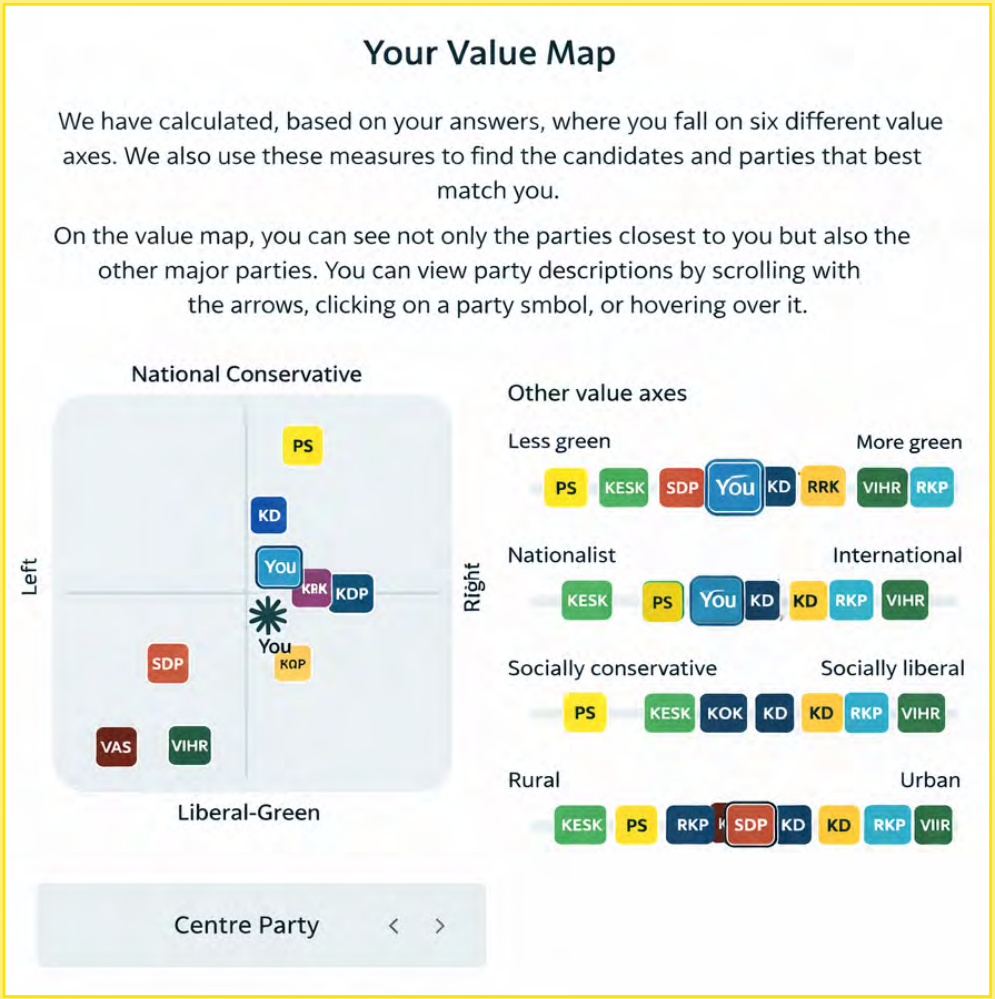
TIP

There are many ways to visualise political value differences

The most traditional visualisation used in VAAs is the two-axis value map, where one axis represents the left–right spectrum and the other the conservative–liberal divide.

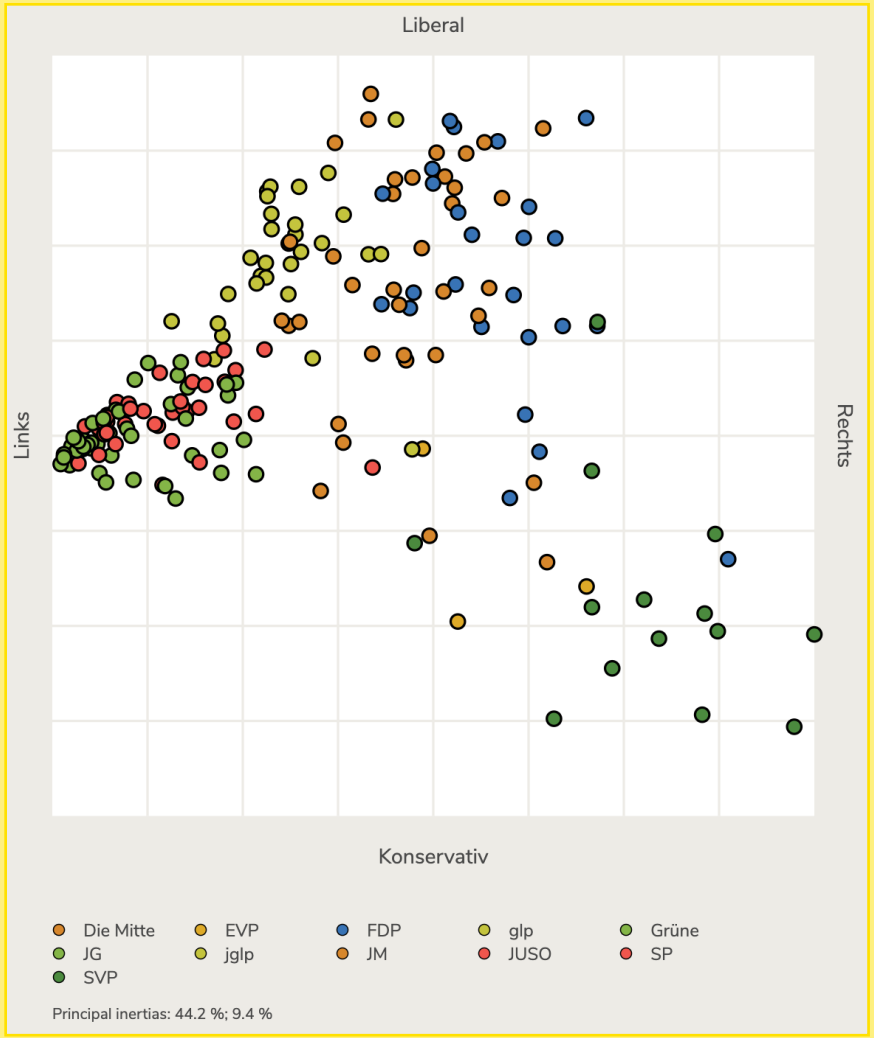
However, both in Finland and internationally, many other visualisation models have been used. Some are variations of the traditional model, while others represent similarities and differences between candidates and parties in entirely different ways. Designers are free to be creative when searching for the most suitable visualisation for their target group.





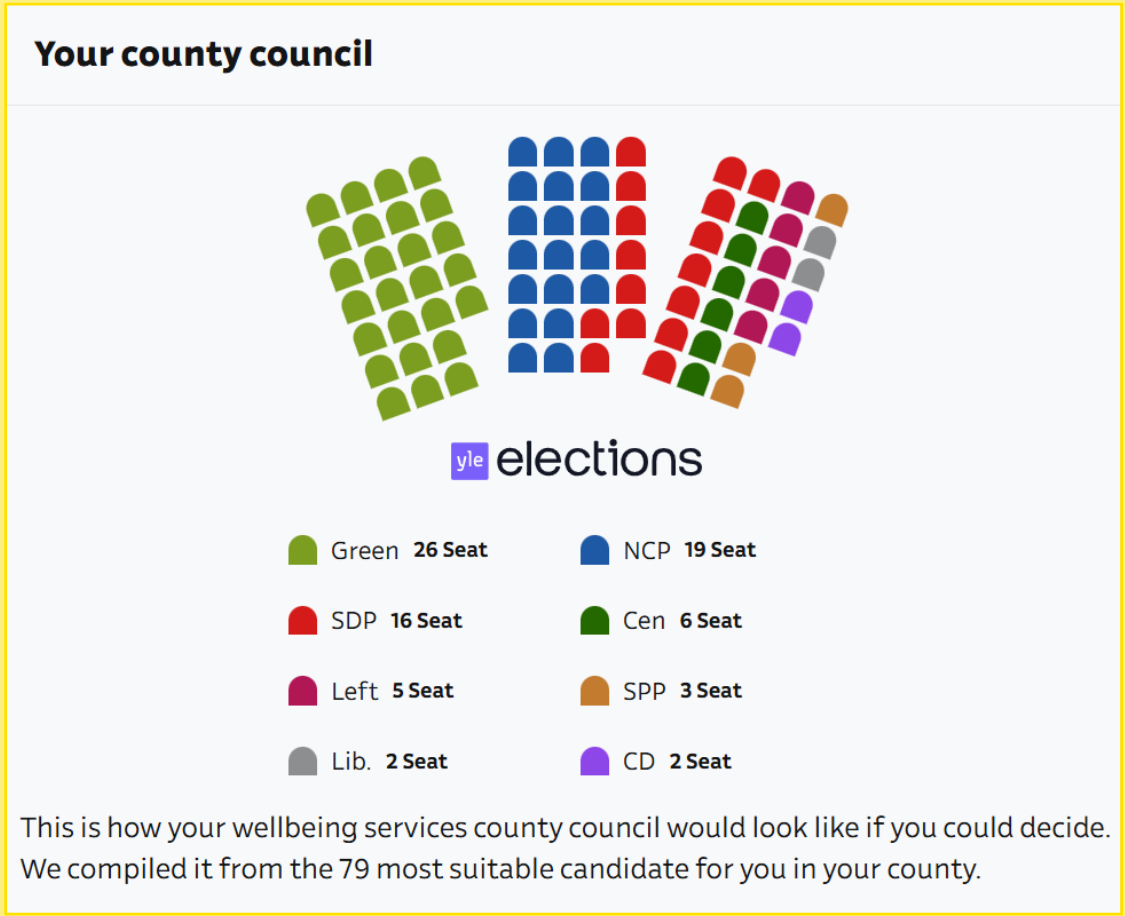
Example 1: An enriched value map

In this voting advice application, the traditional value map has been expanded by adding four additional dimensions, shown in the image on the right. This implementation was used in the voting advice application published by Helsingin Sanomat for the 2023 parliamentary elections.



Example 2: Candidate positioning

In this VAA visualisation, all candidates participating in the election are colourcoded. The aim is to illustrate to the user how candidates from the same party position themselves relative to one another based on their answers. The visualisation also shows the central point of each party – the area where the largest number of that party's candidates are clustered. The visualisation originates from Smartvote, a voting advice application maintained by the Swiss organisation Politools. The tool is used in Switzerland and has also been applied in regions such as Tibet, Austria and Australia.



Example 3: Your county council

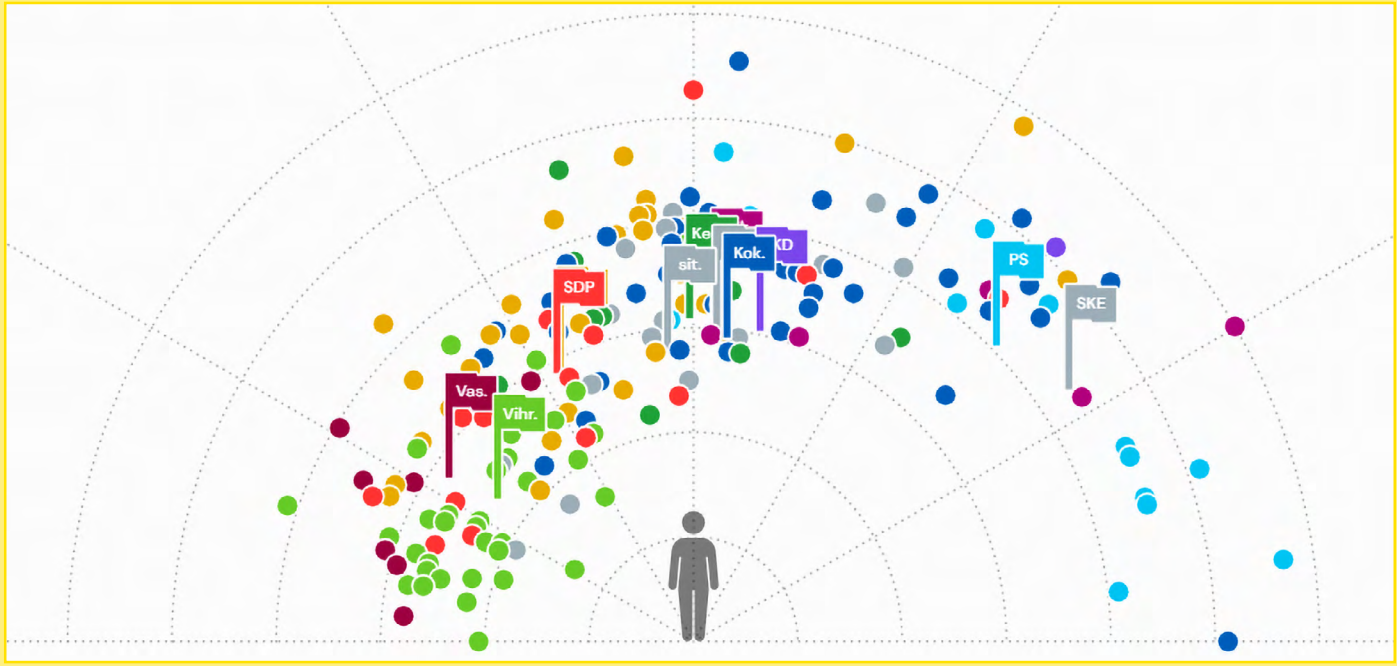
Votingadvice visualisations can also be designed from the user's perspective.

In this voting advice application, once the user has completed the VAA, they are shown what the county council would look like based on their answers. Yle has provided this visualisation as an additional feature for users of its voting advice application in recent elections.

Example 4: Your personal candidate map

In this voting advice application, once the user has answered the questions, they are shown a candidate map in which the user is placed at the centre and the candidates are arranged around them based on the similarity of their answers. The candidates appear as coloured dots. The distance of each dot from the user indicates how similarly the user and that particular candidate responded to the questionnaire.

Leftwing liberal candidates are mostly grouped on the left side of the map, while rightwing conservative candidates appear on the right side. This visualisation was used in an experimental voting advice application created as a course project in connection with the 2021 municipal elections in Finland. The tool was based on data from Yle's voting advice application.



Practical tips for implementing an educational VAA

Once the design principles of an educational VAA are clear, it is worth considering the practical aspects of implementation.

The key points are:

1. Pay attention to background questions
2. Develop together with the target group
3. Prioritise communication to the target group
4. Choose technical solutions that serve the target group

1. Pay attention to background questions

In the early phase of designing a voting advice application, attention often focuses on crafting the VAA statements. This is understandable – but it is also important to consider what other questions candidates or parties should answer while responding to the VAA statements.

Collecting structured background information such as age, gender, education, or profession is usually straightforward. Once collected, this information can be used in the VAA – for example, as filters in the results view, enabling users to view their recommended candidates based on demographic criteria. One may question whether attributes such as age or gender should be used as filters – but even here, it may be best to give the decision-making power to the user.

In addition to demographic information, an educational VAA can provide users with other contextual information about candidates. Candidates may be provided with a free-form introduction section where they can present themselves more personally. The voting advice application may also include a section in which candidates list their most important campaign themes or pledges, including topics not directly covered by the VAA statements.

The background information collected can then be used to enrich the personalised results list. For example, instead of showing only the match percentages for the top candidates, the results can also highlight their key themes or campaign messages. This can help users better distinguish between candidates when match percentages differ only by fractions of a percentage point, as is often the case.

The most significant benefit of this implementation is that it becomes possible to differentiate candidates in ways other than solely on the basis of the match percentage. This helps in selecting a suitable candidate, because the match percentages of the top candidates listed by voting advice applications often show only small differences, even differences of only tenths of a percent. Focusing solely on these percentages may also obscure differences that can arise between top candidates even on substantive issues.

An educational VAA can support the discovery of a suitable candidate by bringing forward, alongside the match percentages, for example the election themes or promises of the top candidates. To ensure smooth implementation, the length and format of candidate-provided background information should be standardised so that all responses fit neatly within the VAA's results view.

2. Develop together with the target group

If possible, organise workshops with your chosen target group as soon as you begin designing the VAA. In these workshops, participants can try out existing VAAs, compare their features and interfaces, and consider how results should be displayed or how additional information should be provided.

Involve the target group closely in creating and formulating the VAA statements as well. Begin by discussing together which themes the voting advice application should cover. Do not forget to evaluate the finished statements and their explanations with the target group before publishing the VAA. It is especially important to ensure that the statements are clearly formulated and interpreted consistently. The wording of statements often raises concerns about perceived bias, which is not always easy to correct.

If you introduce new features into the voting advice application, make sure well in advance that you can collect high-quality, anonymous usage data. Not all VAA platforms or the cloud services they rely on provide this capability by default.

Once the VAA is published, analyse the collected data carefully to understand how new features were received and how users actually interacted with them. To support systematic development, you can also organise additional workshops with the target group after the elections to observe how the VAA was used in practice.

3. Prioritise communication to the target group

Even a well-designed voting advice application cannot succeed unless users find it. Widely known, well-established VAAs rarely struggle with visibility – but smaller, target-group-specific voting advice applications often do. For them, effective communication is crucial. The importance of targeted communication increases further when the aim is to reach young people or groups that are generally less politically active.

To ensure the voting advice application reaches its intended audience, the publisher must understand which communication channels work best for that group. These often include social media platforms. However, when planning to advertise a VAA on social media, it is important to check in advance what restrictions apply to political content. During election periods, platforms interpret 'political advertising' differently, and in the worst case, VAA ads may be blocked if a platform deems them to be prohibited political promotion.

Invest in the VAA's discoverability and shareability

The publisher of an educational voting advice application can also support discoverability by making sharing easy and appealing. Additional visibility can be gained by deliberately creating VAA content that candidates or users can share on social media – such as interesting statements with their response distributions, visualisations of candidates' and parties' positions, candidates' free-form introductions, or personalised result summaries.

4. Choose technical solutions that serve the target group

Implementing an educational VAA in a target-group-centred way requires a sufficiently flexible technical platform – one that makes it possible to develop the VAA in the ways required by the chosen audience. Choosing the right platform is therefore an important part of the process.

Closed platforms usually have tightly limited customisation options, or they require potentially expensive modifications from the vendor. In contrast, the key advantage of an open-source VAA platform is its complete modifiability.

Because of this flexibility, voting advice applications built on an open-source platform can be tailored to the needs of the target group much more easily and cost-effectively than those built on closed systems. If features developed for one specific group later prove successful, they can also be shared with other VAA publishers under open-source principles.

What new features could a VAA include?

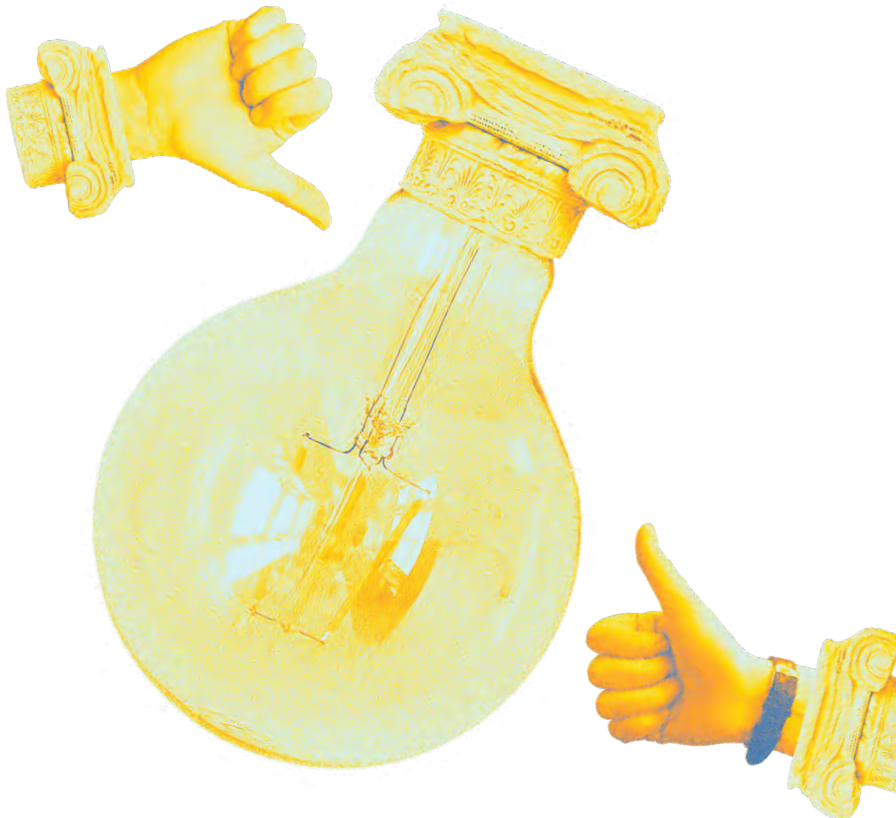
From the publisher's perspective, another major benefit of an open VAA platform is that many core features are already available as part of the system. This reduces the resources required to create a basic VAA, allowing publishers to focus more on developing target-group-specific features and other VAA innovations.

Traditional voting advice applications have paid relatively little attention to the post-completion experience. Publishers of educational VAAs could develop features that support users' voting activity even after completing the VAA. What if the user could, for example, save promising candidates in a 'shopping basket', or choose an optional reminder sent close to election day containing a link to their personal recommendations?

Publishers could also explore ways to extend the use of VAA content beyond the election cycle – for example, by integrating democratic-education functions into the voting advice application. This could help maintain political interest outside election period.

As the open-source platform reduces the basic development workload, opportunities for target-group-specific innovations increase accordingly.

"Voters are interested in elections and politics during the election period. How could we extend this window of interest? Could VAAs help keep political engagement alive beyond the election itself?"



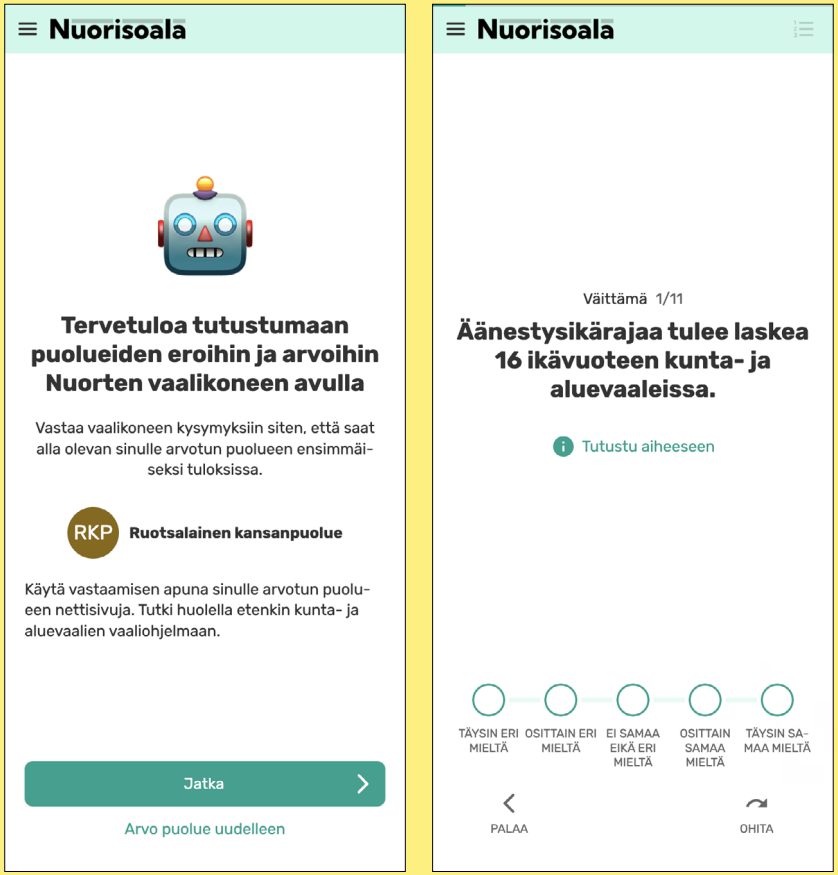
EXAMPLE:

A gamified VAA taught differences in party values

Finland held regional and municipal elections in 2025. In connection with these elections, the national youth umbrella organisation, the Finnish National Youth Council and Youth Sector (FYCS), published a VAA designed specifically for young people.

The VAA was developed in a highly target-group-centred manner, in close collaboration with young participants. However, the true innovation lay in a special gamified democratic-education version of the VAA, which was used by pupils in schools under the guidance of teachers as part of FYCS's Politics Week.

From a technical perspective, this educational version was surprisingly simple to build.
It required only minor adjustments to the main VAA's core functionalities – many components



could be reused as they were. What required more careful planning was the design and conceptualisation of the democratic-education activity itself.

The most significant difference between the educational version and the main VAA was that, unlike the municipal/regional election VAA, which displayed both candidates and parties, the educational version showed only parties. Furthermore, the statements were chosen and formulated differently. The educational version included fewer statements, and they covered only national-level political issues.

For each statement, explanatory texts were collected directly from party headquarters. This approach ensured that the explanations shown to pupils represented the party's official and nationally consistent positions. The aim was to teach pupils the clearest possible differences between parties' value positions.

The VAA was used in the classroom

The aim of the democracyeducation voting advice application was to familiarise students with the value differences between political parties. In practice, the application first randomly assigned each pupil a party. The pupil's task was then to try to answer the VAA statements in the same way as the assigned party had answered. If the pupil succeeded, the party rose to the top of the results in the recommendations generated for the pupil.

If the pupil's answers differed from the party's and the party did not reach the top of the results list, the application encouraged the pupil to adjust their answers to improve the result.

To predict how the assigned party would respond, pupils were encouraged to look up information during the lesson – for example, from the party programmes or general public sources. The educational VAA was very well received by teachers. It also received positive feedback from party organisations, which had provided the explanatory texts.

Other VAAs with educational features

Palumba

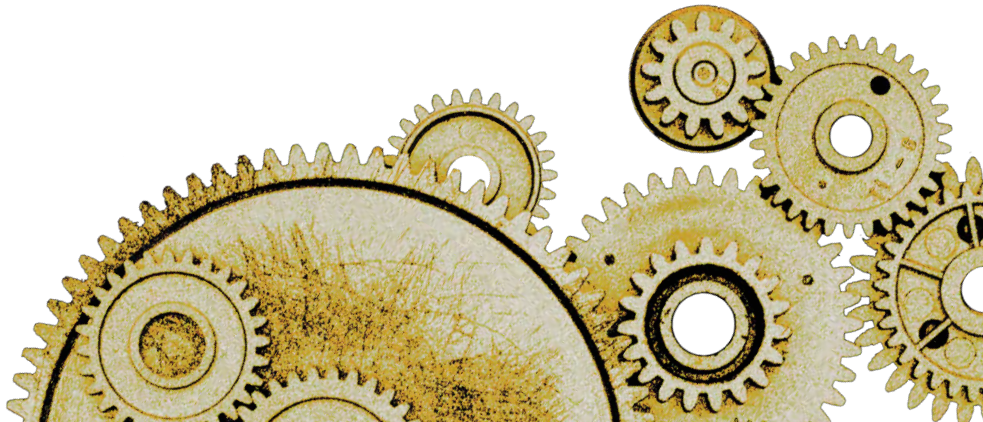
This VAA reached 190,000 young first-time voters across Europe during the 2024 European Parliament elections. Its results feature personality-test-style elements designed to help users understand their political profile.

Young Voice

A Dutch VAA that partially inspired the video-based educational VAA implemented in Finland in 2024. In this VAA, all questions are presented in video format. Results are shown without precise match percentages; instead, parties are listed for the user in an order based on proximity to their responses.

Yle Kioski's Election Bot

Developed for the 2019 Finnish parliamentary elections, this was an early experiment in using a chatbot-style interface. The bot presented slide-style summaries of each policy topic and lowered the threshold for use by adopting a conversational interface and familiar, approachable language.



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SITRA.FI
Itämerenkatu 11-13
PO Box 160
FI-00181 Helsinki
Tel: +358 294 618 991