EUROVISION SONG CONTEST

Visualising Voting Patterns and Polling Data

Process Book

Introduction

The Eurovision Song Contest is an annual song contest running since 1956. Each participating country is represented by an artist and song, and a winner is crowned after each country awards their points. The points are allocated based off of a jury and public vote.

Goal

Each country awards points from a public vote and a jury vote, both of which are weighted equally. The public vote is comprised of televoters, and the jury vote is comprised of a panel of juries.

In recent years, this system has come under scrutiny. Two issues in particular are often raised:

- Voting blocs have emerged where countries give the most points to each other
- The fan favourite does not win as the jury vote prevents the public winner from winning

The goal of our project is to create a website with interactive visualisations that will allow us to explore the voting patterns and find out which songs were fan favourites. With our website, it will be simple to view how countries have voted across multiple editions of the contest and see whether certain countries vote for each other. In addition, it will be clear to see whether or not the public and jury votes align and whether the jury vote really does prevent the fan favourite from lifting the Eurovision trophy.

The Journey

Dataset

The first step was to see which data we could obtain. Since editions are infrequent and the voting results are made public, we believed that the data that we will need would be easily accessible. Indeed, we found the [Eurovision Song Contest Data](#) dataset on Kaggle to contain the data we needed – the allocation of televotes and jury votes from each country each year, and the results from the two biggest polls of Eurovision fans on who should win the contest. Fortunately for us, the dataset is complete and did not require much cleaning.

After carrying out an exploratory analysis of our data, we would need to decide which visualisations we would create. Then, we could determine which format we would need our data to be in and transform it accordingly, as the format that the data was in was unlikely the most suitable one to work with.

Brainstorming Ideas

Once we could see exactly what data we have, we started coming up with ideas on how we could visualise our data. We started by looking at the voting data. During the Eurovision broadcasts, the votes are presented in a tabular format, as shown below.

This format is suitable for the show since this screen appears for almost a minute per country. This gives the viewers enough time to assimilate the information. However, we want to present this information in such a way where for a given country, the points awarded can be understood in a matter of seconds. Therefore, using a similar format would not work for our goals. The main issue is that each entry has to be read one by one to assimilate everything.

Voting Data

We came up with the idea to try and display this information on a map instead. In one quick glance, the same information should be easily extracted. Our first sketch of what this could look like combined the tabular view with a would-be interactive map.
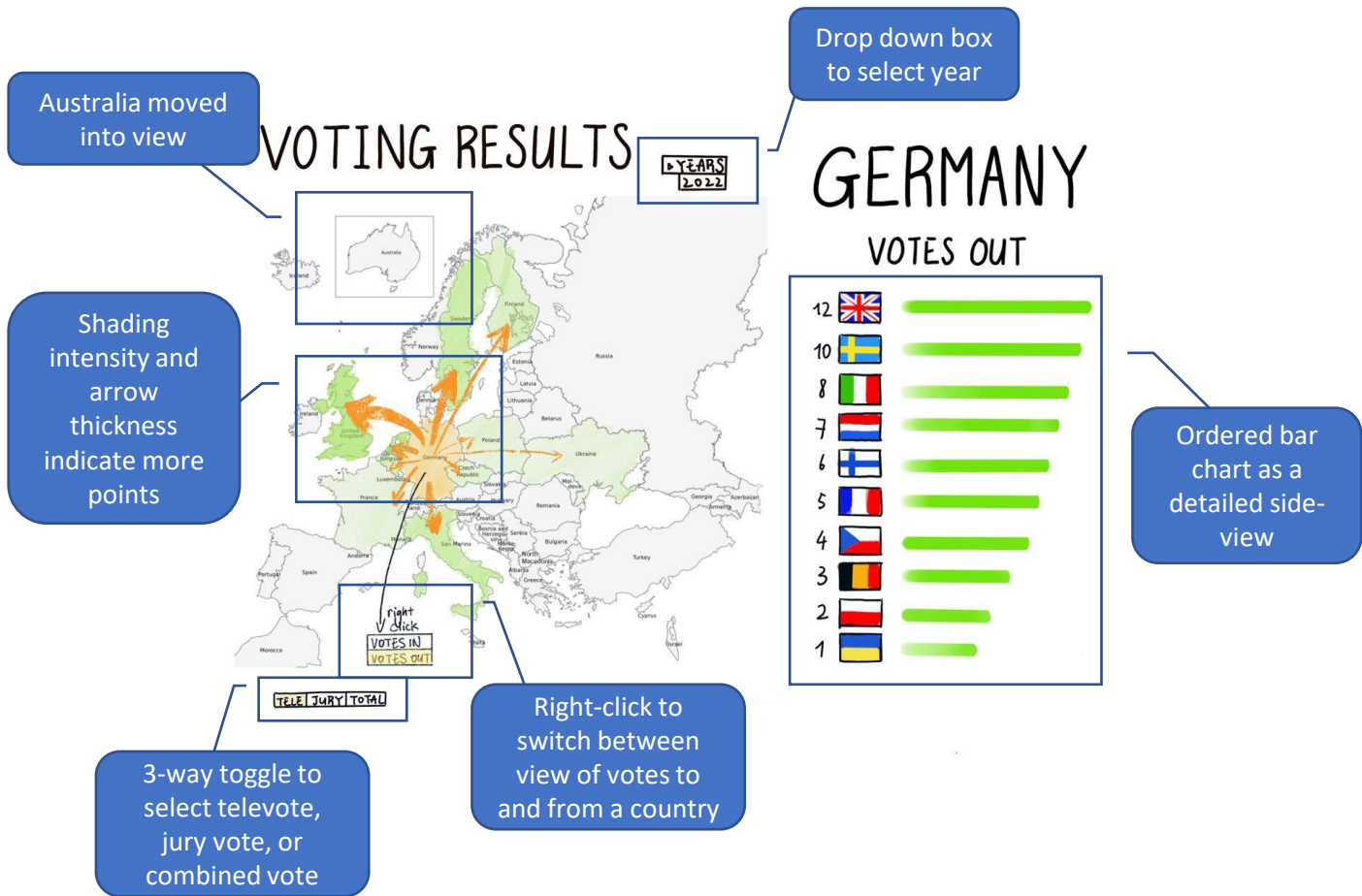

In this view, we are able to quickly see where the German public awarded their points. The bar chart to the right provides the exact details of the voting, and the arrows show a summary of who received the most points. We imagine that someone can, in a short amount of time, click on their countries of interest and quickly see for whom they voted for and from whom they received points.

Challenge: when implementing this concept, we found that having arrows with different widths cluttered the map when the chosen country received lots of votes from many countries. Since Europe is so tightly packed with countries, it made the map unreadable.

**Decision**: use an identical thin arrow for all votes to not clutter the map.

We deemed this to be an acceptable solution because, thanks to the bar chart to the right, the user can still analyse the distribution of the votes. The map shows the geographic location, the bar chart shows the popularity, and the user already specifies the direction of the arrows with the votes in/out toggle.
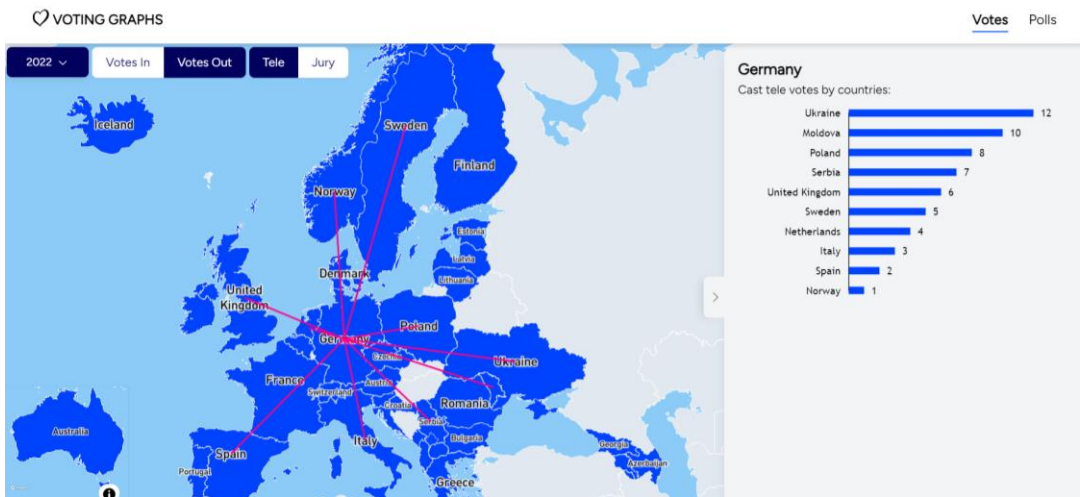
Polling Data

We have data from 2 fan polls. One ([Eurovisionworld](#)) asks fans which song they think should win the contest, and the poll counts the number of votes each country receives. Another ([OGAE](#)) asks fans to award their own points to countries, and the poll tracks the average number of points each country receives. An updated version of the dataset that we use changes the OGAE ranking to count which country is the favourite in the same way that the Eurovisionworld poll does, hence we no longer used the average out of 12 metric that our earlier designs used.

We chose to present this data using bar charts for each individual year, and for specific countries line charts to show how the trend of how popular countries are over time.
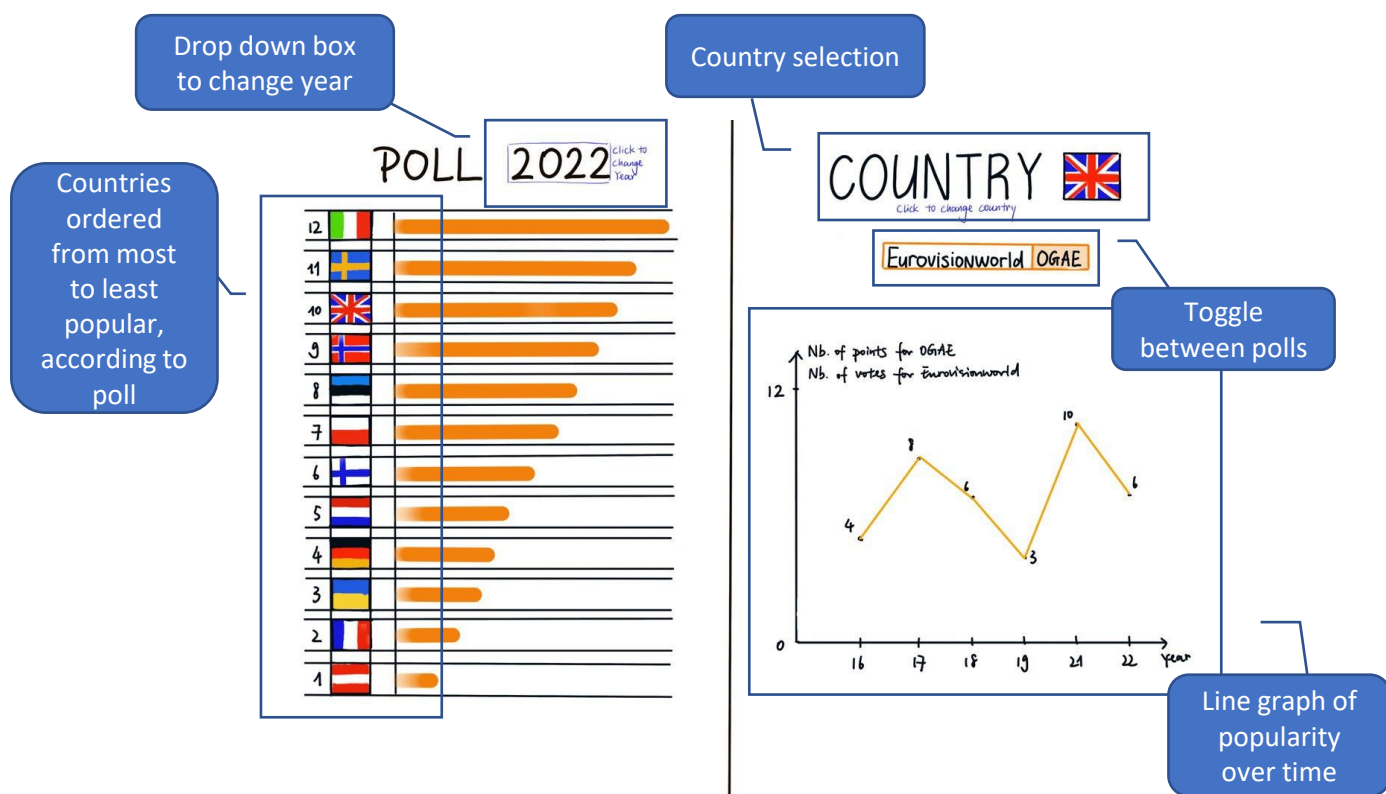
We also sketched out how the year and country selection could look. We decided it would be most intuitive to show a grid of flags to select the country, as a list of country names would be too long.
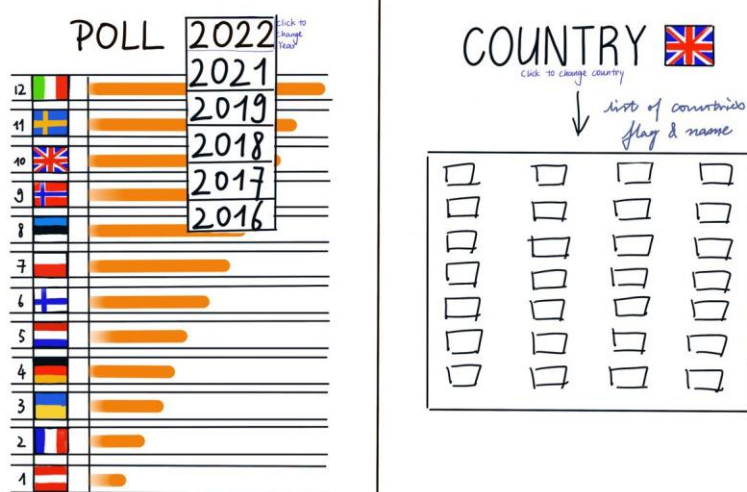
The poll data to the left is the most important data on the page – the panel to the right is secondary and is only relevant once a country has been selected (i.e., not straight away when the user accesses the page). Therefore, we decided to initially present the user the poll data by itself.
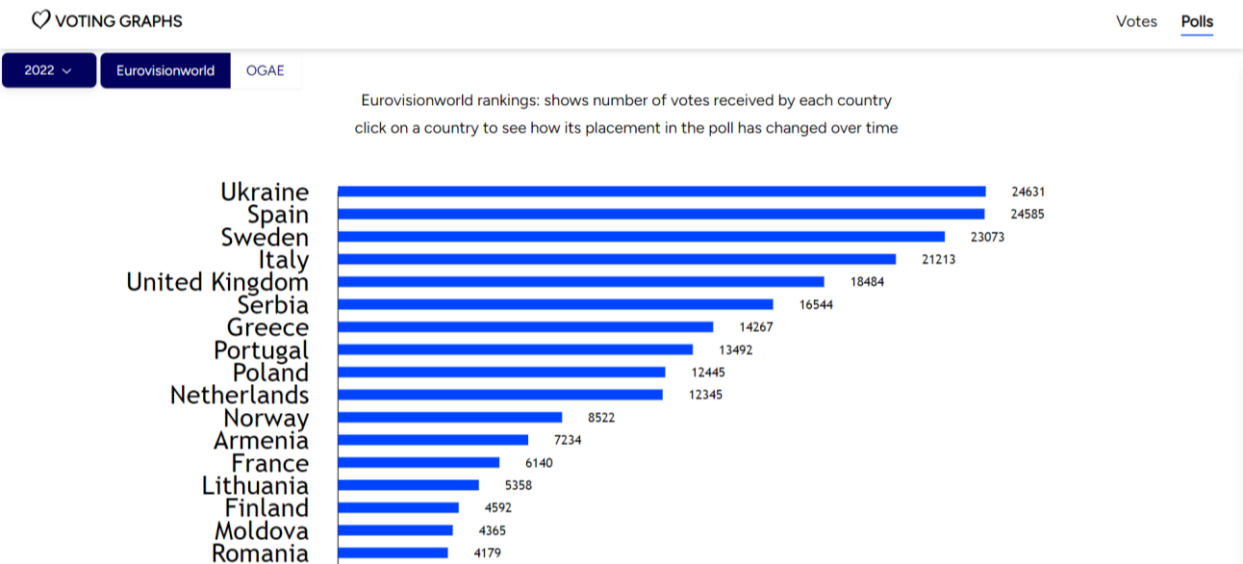
Challenge: if we present the main data in the centre (in order to highlight that it is the most important element), it becomes not so intuitive to inspect a country's performance over time by looking for it in a grid to the side.

Solution: view a country's performance over time by selecting it from the main visual instead.

This way, it becomes simpler for the user to inspect how a country polls in detail. A side panel opens showing the line graph.

Landing Page

The landing page is where the user arrives when they visit our website to view the different visualisations. We first imagined the landing page as being very simple and having only a brief description of the Eurovision Song Contest. Our first mock-up contained this in the centre with a navigation bar at the top.

We later reimagined our vision as we felt it was insufficient to give a very brief introduction to the contest as other information was lacking (e.g., what we are trying to show through our visuals).

We reimagined it as being a hub where the Eurovision Song Contest is briefly explained (as many people are likely unfamiliar with what it is as well as its format), what the problems facing the contest are, and how our visualisations help to visualise the problem.
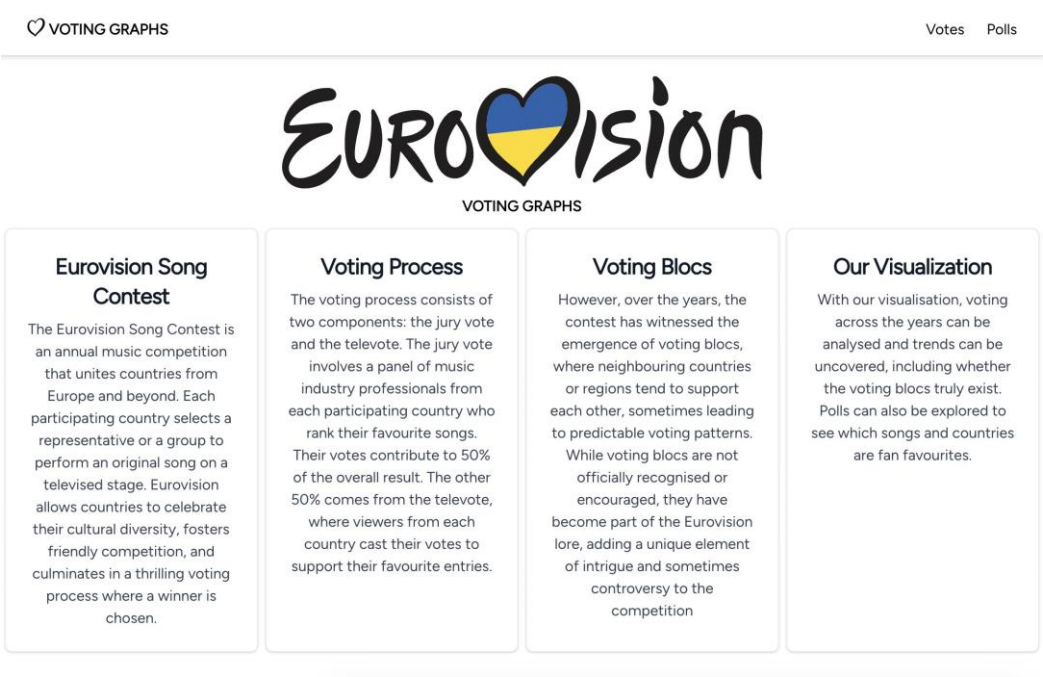
As seen above, we kept a similar layout with the information centred and the navigation bar up top. This time, we expanded the introduction and highlighted the 4 key points: what is the website about (the Eurovision Song Contest), which aspect of it are we investigating (the voting system), why we need to explore it (voting blocs), and how we can explore it (with our visualisations).

Peer Assessment

Over the course of the project, we regularly met to discuss our ideas and to take decisions together. Each of us contributed ideas to every aspect of our project – from the design of the website itself to the choice of visualisations.

We split the actual implementation of the various components of the site between ourselves:

Anton

Cleaning and exploring the data to see what we could do with it. Transforming it into usable formats for the visualisations. Implementing initial concepts. Taking care of the screencast.

Jiabao

Finalising the Polls page. Creating the sketches of our visualisation ideas. Designing the layout of components of the website and working on the process book design and contents.

Zhe

Finalising the Votes page and creating the website template. Trying different libraries to find the best one for creating the map visualisation. Hosting the page on github.io and working on process book design.