

Team Civil Discourse Final Report

Abstract

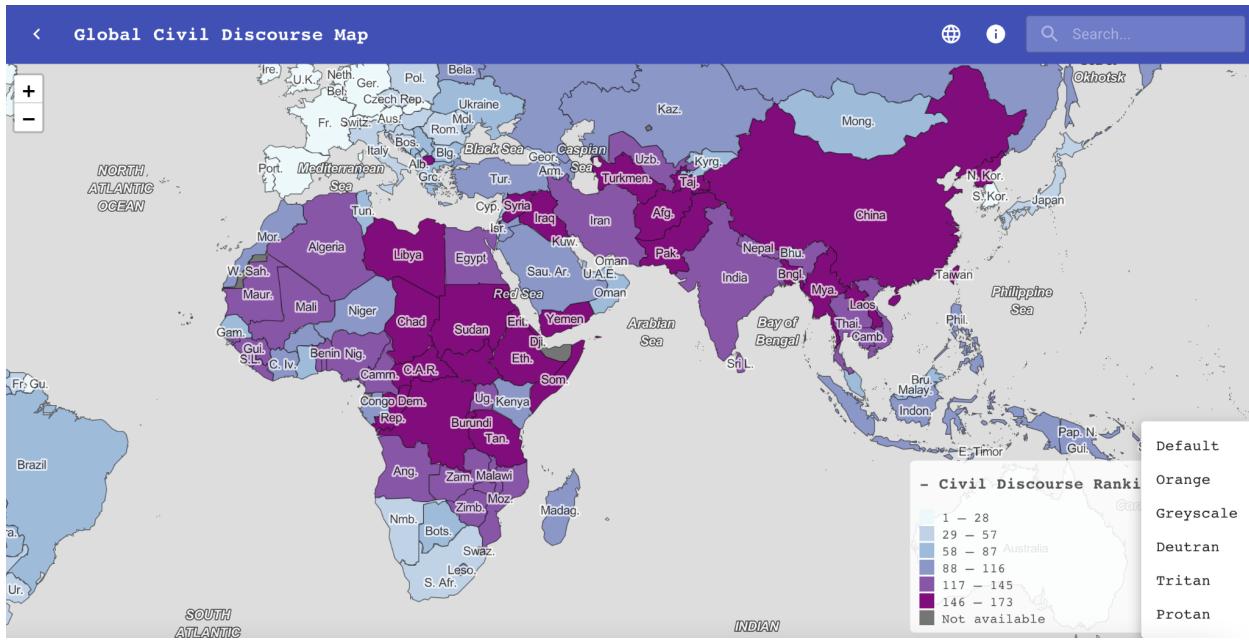
Team Civil Discourse worked on a project in collaboration with Professor Jeff Kelly Lowenstein, who is the current Padnos/Sarosik Endowed Professor of Civil Discourse here at GVSU. The Global Civil Discourse map is an interactive web application designed to show information about civil disarray, social and political misinformation on a country by country basis. This includes a global listing of country data, as well as country level reports which include weekly updated lists of curated headlines regarding the social and political climate in those countries. Our team's improvements focused on improving the user interface and making visual updates through the addition of photos, font changes, colors, structural changes, expanding the headlines algorithm, updating and cleaning up unnecessary assets, and finally deployment of the live services which was two semesters behind.

Introduction and Website Interaction Details

Our Civil Discourse Map and website works by displaying a global map that shows each country in a specific color that indicates where they fall within a global civil discourse ranking system. Upon clicking on a country, a popup bubble shows additional information and the user can be directed to another page by a "click here to learn more" button. If the user does wish to see further information they can be directed to a detailed country page which gives more information on a country's political/social/civil situation. In addition, there are two excess pages on the website, including a Rankings page which displays a table with all the countries and their respective information. The About page contains all the information about the creators of this project and where it started.

The Map

Our Civil Discourse Map page shows a global map with each country color coded in accordance with their allocated civil discourse rating. The rankings for each country run from 1-173. There are 7 given colors, running from lightest to darkest for each continent. There are also 5 additional color options included in the side menu, some of which were added and updated by our team to give the map a more exclusive look.



Country Information Pages

Each country's information page contains additional details about a country's population, civil discourse ranking, average civilian access to the internet, declarations signed, reporters without borders, and literacy rates. This semester, we began updating and adding headlines to English speaking countries and reworked the algorithm so that the headlines update on a weekly basis. Each headline also behaves as a link to that particular article should the user wish to learn more. There is also a button included under the information boxes that directs a user to the Reporters Without Borders Website for more information if needed.

- United States -

Civil Discourse Ranking: 22

Population: 332,639,102



- Recent Headlines -



'Tokyo Vice' Review: Another American in Translation

Wed Apr 06 2022

A young Midwestern journalist comes of age on the mean streets of Tokyo in an HBO Max drama based (very loosely) on a real story.



Effort to Remove Marjorie Taylor Greene From Ballot Can Proceed, Judge Says

Mon Apr 18 2022

The case that Ms. Greene unsuccessfully sought to have dismissed mirrors efforts against other Republicans centered on the Jan. 6, 2021, attack on the Capitol.



Biden Must Halt Any Resumption of Pre-Covid Border Policy, Judge Says

Mon Apr 25 2022

Under a public health rule known as Title 42, thousands of migrants have been expelled at the border. A federal judge is halting efforts to begin lifting the policy, due to end on May 23.



U.S. Offers Protection to People Who Fled War in Cameroon

Fri Apr 15 2022

Temporary protected status will allow an estimated 40,000 Camerounians to legally live and work in the United States.

[VISIT GDI'S SITE TO SEE A COUNTRY-LEVEL REPORT...](#)

Rankings Page

The Rankings page shows a large table that displays each country and all of its data on a column by column basis.



A screenshot of a web browser displaying a table titled "Country Level Rankings". The table has a header row with columns for Country, Population, Discourse R., Censorship, Internet Ac., RWB Rating, and Millennium. Below the header, there are ten rows of data for various countries, each with their name, population, discourse rank, censorship score, internet access percentage, RWB rating, and millennium status. The table is set against a dark blue background with white text and light blue horizontal lines.

Country	Population	Discourse R...	Censorship ...	Internet Ac...	RWB Rating	Millennium ...
Comoros	852,094	121	3.40	8.00%	84	Not signed
United States	332,639,102	22	1.00	87.00%	44	Not signed
Madagascar	26,898,646	106	4.10	10.00%	57	Not signed
Sudan, South	10,560,984	165	8.70	8.00%	139	Not signed
Russia	142,588,206	98	9.90	83.00%	150	Not signed
Jamaica	2,815,048	37	1.30	55.00%	7	Not signed
Côte d'Ivoire	27,470,185	92	5.30	43.80%	68	Signed in
Saudi Arabia	34,223,743	109	10.00	69.00%	170	Not signed
Albania	3,080,930	62	5.00	70.00%	83	Not signed
Total	1,055,912	57	5.20	11.00%	15	Not signed

About Page

The About page contains information about the origins of the project, how it was developed, and who has worked on it. The Background section details the beginnings of the Civil Discourse project in 2020 through Padnos and the sponsorship by professor Jeff Kelly Lowenstein. The Methodology section details the processes for information gathering, detailing and statistical analysis for the project.

< Global Civil Discourse Map

Search...

Background

The Padnos/Sarosik Civil Discourse Program was founded through the generous gift of Shelley E. Padnos and Carol Sarosik to help create "more inclusive, tolerant, and peaceful communities." (GVSU 2020). Current Padnos/Sarosik Endowed Professor of Civil Discourse Jeff Kelly Lowenstein noticed that there was no global map ranking the level of civil discourse by country. He thought that building such a map could help make the subject more accessible to people who did not have prior knowledge in this area and provide a standard for meaningful dialogue. With the help of students from GVSU, this map seeks to communicate the implications for civil discourse of the tension between those people working to share accurate information and those individuals, organizations and governments seeking to misinform and disinform the public. We hope this tool will play a positive role in helping people engage in civil discourse and have thought-provoking conversations.

Methodology

We went through an extensive process to identify the variables we used for each country's civil discourse rating. We sought to find variables that would illustrate the intersection between national commitments to freedom of speech and media with the reality residents experience in the areas of press freedom, internet access and online censorship.

Our initial steps involved researching and recording each country's national and international promises to freedom of speech and media. For the international level this consisted of seeing which countries that belonged to the United Nations had supported the [2000 Millennium Declaration](#). The declaration reaffirmed the [1948 Universal Declaration of Human Rights](#) that included freedom of speech and media.

We also looked into nations' [Reporters Without Borders 2020 World Press Freedom Index](#), ranking, [population, internet access, and online censorship](#). For each of these variables we sought to find a database that would include as many countries as possible. We also explored whether countries had passed fake news laws, but did not find a single database that contained a comprehensive listing of these measures.

Eventually, we decided to include the Reporters Without Borders Press Freedom Index, the level of internet access, the online censorship level and whether the country signed the Millennium Declaration. After discussing the relative weight each variable should receive, we decided that the press freedom index should be 37.5% of the score, the internet access should be 30% of the score, the online censorship should be 22.5% of the score, and the Millennium Declaration signature should be 10% of the score. Since each of the variables used different scales, we based our calculation on the country's ranking on that variable relative to other countries. We included the country's population in its individual profile, but did not include them in the final calculation.

The Contributors section displays photos, names, and excess information about the IDS, CIS and Journalism students involved within the project since it's Fall 2020 inception.

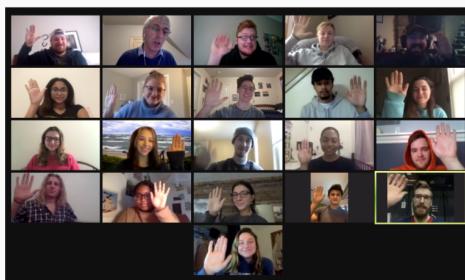
Contributors

This project began in the summer of 2020, when Padnos/Sarosik Intern Samantha Johnson and Lanthorn Editor-In-Chief Nicholas Moran looking up and entering information about each country's national and international promises of press and media freedoms.

The IDS 350 class taught by Professor Kelly Lowenstein contributed all of the information used in the Civil Discourse Map. We would like to recognize each student in the class, the seven computer science students who worked on the web application, and Computer Science Professor Jonathan Englesma.

- The IDS Students During the Fall 2020 Semester -

Deleon Brown, Ashley Bylsma, Madelyne Crace, Colin DeYoung, Jayce Efting, Olivia Fellows, Lauren Hasse, Trevor Hubert, Rachel Jongsma, Toria Keyes, Ariel Mejia, Chase Meulebrouck, Nicholas Reid, Grace Stille, Jenia Thompson, Michael Thorsen, and Kellen Voss.



- The CIS Students During the Fall 2020 Semester -

Josh Lowell, Carson Uecker-Herman, and Olivia Vitali.

- The CIS Students During the Winter 2021 Semester -

Technical Specifications

HTML/JS/CSS: Development

Our website was built with HTML, CSS, and Javascript. Hypertext Markup Language was used for the website's core information and display. The Cascading Style Sheets code is implemented within the HTML for styling and visual changes. Javascript libraries were used with React to connect the site to various databases for information that is displayed throughout the website.

```
src > components > JS Legend.js > [x] Legend
  1 import React from "react"
  2 import Menu from '@material-ui/core/Menu';
  3 import MenuItem from '@material-ui/core/MenuItem';
  4 import MoreVertIcon from '@material-ui/icons/MoreVert';
  5 import Button from '@material-ui/core/Button';
  6 import Fade from '@material-ui/core/Fade';
  7 import * as ColorScheme from "../ColorScheme.js"
  8
  9
 10 const Legend = () => {
 11
 12   const onColorChange = (newColors) => {
 13     Array.from(document.querySelectorAll('#a')).map(function (value, index) {
 14       return value.style.backgroundColor = getColor(grades[index], newColors);
 15     });
 16   }
 17
 18   ColorScheme.subscribe(onColorChange);
 19
 20   function getColor(ranking, newColors) {
 21     if (newColors === null || newColors === undefined || newColors.colorTheme === null || newColors.colorTheme === undefined)
 22       return ColorScheme.fallbackColor;
 23
 24     if (ranking >= 146) return newColors.colorTheme[5];
 25     else if (ranking >= 117) return newColors.colorTheme[4];
 26     else if (ranking >= 88) return newColors.colorTheme[3];
 27     else if (ranking >= 58) return newColors.colorTheme[2];
 28     else if (ranking >= 29) return newColors.colorTheme[1];
 29     else if (ranking >= 1) return newColors.colorTheme[0];
 30     else return ColorScheme.fallbackColor;
 31   }
 32 }
```

AWS

Amazon Web Services was used to implement an algorithm for automatically updating the country headlines daily.

Heroku

Heroku was used as our cloud service to host our website.

GitHub

The GitHub platform was used to house our code via a joint repository that each team member had access to. We were able to make changes to our website and test user interface and visual changes before committing code to our repositories.

Technical Growth

Amaka: Prior to starting on this project, her web design experience was minimal. Working on this project has helped her learn more about how to format, design and structure web pages. During this project she worked a lot on the user interface and design, adding colors, restructuring boxes, adding fonts, buttons, footers, text, project information, and creating a more cohesive look for the site overall. She enjoyed being able to test different layouts, colors, fonts and formatting for the webpages and working with her team to make the Civil Discourse site the best it can be!

Luke: Before Luke was assigned to Team Civil, he had roughly half a decade of experience working with javascript and web development. Knowing that this project was supposed to be a learning experience for everyone involved, Luke decided that the best course of action would be to take an administrative and database management role. Through this, Luke learned how to both, better work as a team and work as a team lead and organizer. Managing a team and trying to work around the schedules of four very busy people will probably always be frustrating, but Luke believes that it has been an invaluable learning experience. “Database management” is perhaps the wrong term for this project due to the AWS NoSQL serverless backend of this project, that was completely foreign to Luke initially, but now if asked he would say something along the lines of “it can be frustrating, but it’s honestly kind of beautiful”.

Hayden: Upon completion of this semester, Hayden has gained valuable experience through working on the Civil Discourse Map. He had no prior experience with web development and was eager to learn. His role as a team member was to fix deprecated packages, map research for potential alternative solutions, map popup location fixes,

and assist team members. He gained an in depth understanding of React and how its functional components work together, as well as a basic understanding of AWS Lambda.

Teamwork Reflection

This project began a little bit rough. The team was unable to access the code and many aspects were deprecated, and so Hayden worked to update deprecated code and we met with Professor Woodring to be able to launch the website and work on the code. While Amaka worked on visual updates to the site, Luke worked on configuring an algorithm to update the news headlines on country pages. We were able to meet with our sponsor weekly to assist on development and give feedback on changes we were making and additions to be included.

ACM Code of Ethics

1.01: Accept Full Responsibility for Their Work

- Each group member is responsible for the work they have done over the course of the semester including any github commits, AWS, or website changes.

2.03: Use the Property of a Client or Employer as Instructed and Authorized

- Our group has been in weekly communication with our sponsor and clients about what changes to make and how to implement new elements into the website.

6.02: Promote Public Knowledge of Software Engineering

- Our group is happy to discuss the technology and processes used in the development of our website.

7.02: Assist Colleagues in Professional Development

- Over the course of this project our group has worked together to help update our website when making visual and contextual changes.

8.04: Improve Their Understanding of Software and Related Documentation

- As a team, we have been able to learn a lot about website development and how to build a visually and contextually sound website.

Challenges Encountered

Many of the challenges we encountered were a result of deprecated code, uncommented code and website underdevelopment. We were able to work with each other and get assistance from other professors to solve these issues. Any problems encountered were discussed with our sponsor and action was taken to resolve the issues accordingly.

Future Work

Future work on this website will most likely include the implementation of country specific interviews to the site, additional statistics and more details incorporated that further discuss the levels of civil discourse globally.

Our Successes

Over the course of this semester, our group has worked to create a website that is visually appealing and appropriately interactive. We have been able to revamp the web pages to create a uniform look and feel as well as reinstating deprecated code and reconfiguring an algorithm that works to automatically update the news headlines according to a country's political and social climate.

Conclusion

Spending the semester working on this Civil Discourse website has been a great learning opportunity for each of us. We have been able to improve our skills and work collectively as a team to make a great website according to our sponsors' needs. Though we had issues at the start of the project, our team was able to work through them and move on to implement changes to the site. We enjoyed being able to work with our sponsor Professor Lowenstein and GDI on the continued development of this website as well as getting to work with each other and make this project a success!