

RESEARCH REPORT:

# How do We See Ukrainian Refugees in Serbia?

A Media Sentiment Analysis



# How do We See Ukrainian Refugees in Serbia?

## A Media Sentiment Analysis

### Authors:

**Nikola Milinković**  
Data Scientist  
Catalyst Balkans

**Dr Marko Galjak**  
Director of Technology  
Catalyst Balkans

---

## Executive Summary

- **Methodology** – The study analyzed 6,618 articles from 28 Serbian media outlets, using web scraping, sentiment analysis, and topic modeling to evaluate emotional tone, narrative themes, and potential disinformation. Deduplication and language classification ensured data quality.
- **Media Divide** – Serbian media shows a split in the portrayal of Ukrainian refugees, with nearly equal numbers of articles casting them in positive and negative lights. Negative articles are slightly more common and decline in number as time goes by at a slower rate than positive ones.
- **Role of Headlines** – Some media outlets intentionally use emotionally charged or misleading headlines to frame articles negatively, even when the content itself is neutral or positive.
- **Dispassionate Reporting** – Neutral, fact-based reporting on refugee challenges often unintentionally portrays refugees negatively due to a lack of empathetic framing, even among outlets seen as Pro-Western.
- **Subtle Russian Influence** – Direct regurgitation of Kremlin-backed articles by Serbian media is minimal, with Russian influence appearing subtle rather than overt.
- **Evolving Focus** – Initial coverage centered on humanitarian aid and the immediate impacts of the war, later expanding to include migration policies, border tensions, and regional responses, particularly from Serbia, Poland, and Germany. Over 60% of the articles initially focused on humanitarian aid, with broader themes emerging over time.

## Objectives

The primary objective of this research is to analyze how Serbian media outlets portray Ukrainian refugees and identify the presence of Kremlin-backed disinformation narratives within this coverage. Using systematic data collection and analysis methods, we aim to trace how these narratives evolve and spread across different media sources, measuring their impact on public discourse. Through media monitoring and sentiment analysis, we evaluate the emotional tone of coverage, while topic modeling helps identify key themes in the reporting. By implementing deduplication techniques, we can track how different outlets present the same news items in varying lights - whether positive or negative - revealing patterns in media bias and potential coordinated narrative campaigns. This research provides a foundation for understanding the mechanisms of disinformation spread and its effects on refugee representation in Serbian media.

# Methodology

## Data Gathering

The technical methodology for analyzing Serbian media coverage of Ukrainian refugees follows a carefully structured workflow that begins with the GDELT platform (Figure 1). GDELT serves as our primary data source, where we initiate keyword queries specifically designed to capture relevant media content about Ukrainian refugees. These queries generate lists of articles that potentially contain information about our topic of interest. Given that Russian media outlets that operate in Serbia, namely Sputnik and Russia Today in Serbian language are not present in the GDELT data set we had to scrape them using a bespoke scraping approach for those two outlets, given their importance in our starting hypothesis.

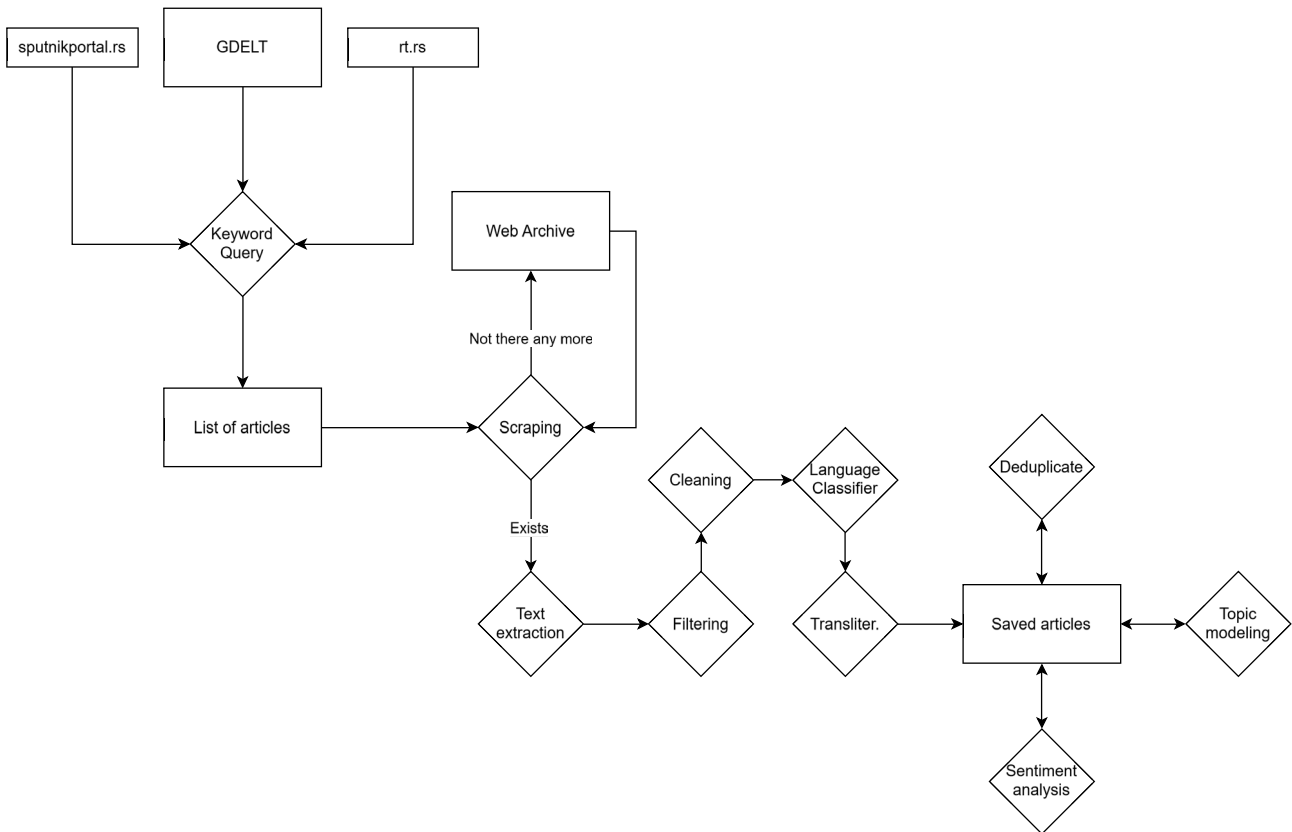


Figure 1. Flowchart of the process of collecting and processing media articles.

Once we obtain these article lists, our methodology enters a phase of content acquisition. We employ web scraping techniques to gather the actual content of each article. In cases where direct scraping isn't successful - perhaps due to paywalls or removed content - we turn to the Web Archive as a backup source. This ensures we maximize our data collection efforts, though some articles remain inaccessible through both methods.

For successfully retrieved articles, our process moves into a series of processing steps. The first is text extraction, where we isolate the main content from surrounding website elements like advertisements or navigation menus. This extracted text then undergoes filtering to remove irrelevant content that might have slipped through our initial keyword queries (false positives). The filtered content moves through a cleaning phase where we standardize formatting and remove any artifacts from the extraction process. Language classification represents another important component of our methodology. We employ automated classifiers to identify the primary language of each article. Articles that are not in Serbian (either Cyrillic or Latin script), are then removed from the dataset.

## Content Analysis

The final stages of our methodology focus on preparing the content for analysis. We implement deduplication algorithms to identify and remove identical or near-identical articles that might skew our findings. LLM (large language model) sentiment analysis was used to examine the emotional tone and stance of each piece, helping us understand how Ukrainian refugees are portrayed in each article and ultimately across different media outlets.

We apply topic modeling techniques to identify major themes and narratives present in the coverage.

This entire process creates a dataset that allows us to examine how Serbian media represents Ukrainian refugees systematically. The methodology's strength lies in its combination of automated processing with careful quality control measures, ensuring that our final analysis rests on a foundation of reliable, well-processed data. Through this approach, we can identify patterns in media coverage, track the evolution of narratives over time, and detect potential disinformation campaigns with greater accuracy.

## Results

We have scraped 6618 relevant articles out of which 5349 were unique articles from 28 different online media outlets. Out of those we have identified 3376 articles that portray the refugees in a negative light and 3242 that portray the refugees in a positive light.

### Time is not on our side

While the number of articles was the greatest at the outset of the Russian invasion on Ukraine, the number of articles has been declining over time (Figure 2). The decline is particularly pronounced for positive articles, which are decreasing at a rate of about 9 articles per month ( $p < 0.001$ ), almost twice as fast as negative articles which are decreasing at about 5 articles per month ( $p < 0.001$ ).

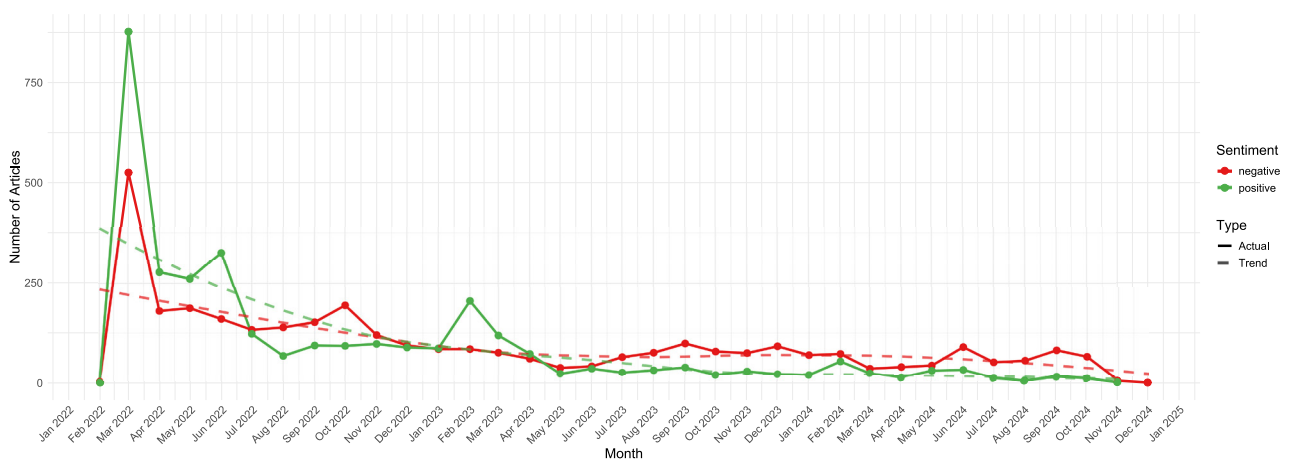


Figure 2. Articles from Serbian media portraying Ukrainian refugees positively and negatively over time.

## Example

### **IZBEGLICE IZ UKRAJINE ČEKA DVA MILIONA RADNIH MESTA U NEMAČKOJ! Šta ovo znači za Srbe u “dojčlandu”? NIJE OVO SLUČAJNO?!**



U Nemačkoj, toj zemlji koja ima stalnu potrebu za radnom snagom, ukrajinske izbeglice mogle bi da popune deo od blizu dva miliona upražnjenih radnih mesta. Evropska unija je odlukom da izvrši masovni prijem ukrajinskih izbeglica ujedno omogućila dobijanje boravišne, ali i radne dozvole na teritoriji EU, koje će trajati godinu dana. Formalno, prepreka da se oni koji dođu iz Ukrajine zaposle u Nemačkoj - nema, javlja dopisnik RTS-a Nenad Radičević. Međutim, otežavajuće okolnosti su znanje jezika i kvalifikacije, odnosno priznavanje profesionalnih kvalifikacija izbeglih Ukrajinaca. Takođe, veliki broj izbeglih čine žene sa malom decom o kojoj moraju da brinu, pa je samim mogućnost za zaposlenje otežana. Poslova ima u svim delatnostima - od ugostiteljstva, gastronomije i pomoćnih poslova, preko nege starih i bolesnih, do zanatstva i majstorskih zanimanja. Nemačka je poprilično žedna novih doseljenika. Procene su da će godišnje biti potrebno najmanje 400.000 doseljenika, kako bi ekonomija bolje funkcionisala. Dolazak izbeglica iz Ukrajine neće se odraziti na radnu snagu sa Balkana, koja u Nemačku ne dolazi u toj meri u kojoj je nemačkoj ekonomiji potrebno. Njihov odlazak na rad u Nemačku biće i dalje moguć, čak i po povoljnijim uslovima - budući da je već nekoliko godina moguće ići u Nemačku i odatle tražiti posao, ukoliko imate sredstava da svoj boravak finansirate dok se ne zaposlite.

### **REFUGEES FROM UKRAINE TO BE OFFERED TWO MILLION JOBS IN GERMANY! What Does This Mean for Serbs in “Deutschland”? IS THIS NOT A COINCIDENCE?!**



In Germany, a country with a constant demand for labor, Ukrainian refugees could fill part of the nearly two million vacant positions. The European Union's decision to allow the mass acceptance of Ukrainian refugees also grants them residence and work permits within EU territory, valid for one year. Officially, there are no barriers for Ukrainians who arrive to work in Germany, reports RTS correspondent Nenad Radičević. However, challenges remain, such as language skills and qualifications, as well as the recognition of professional qualifications held by Ukrainian refugees. Additionally, a large number of refugees are women with young children, making employment opportunities more challenging to access. Jobs are available in various sectors — from hospitality, gastronomy, and auxiliary roles, to elderly and healthcare services, as well as trades and skilled crafts. Germany is in dire need of new immigrants. Estimates suggest that at least 400,000 immigrants will be needed annually to keep the economy functioning efficiently. The arrival of refugees from Ukraine is not expected to affect the labor force from the Balkans, as their migration to Germany does not meet the full extent of the German economy's needs. Balkan workers will still be able to move to Germany, possibly even under more favorable conditions. For years, it has been possible to go to Germany and search for a job while there, provided you have the financial means to support yourself until employed.

## Dispassionate reporting

The example above we have seen the title framing the rather neutral matter of fact reporting so that the portrayal of refugees is negative. In it is constructed so that evokes an emotion, however, there are cases where regular matter of fact reporting, can be viewed as portraying the Ukrainian refugees in the negative light. In other words, portrayal in positive or negative light is not often done on purpose. There are media that are definitely not pro-Russian that end up publish articles that that portray the Ukrainian refugees in negative light. In Figure 3 we can see that Vreme and BBC in Serbian portrayal of Ukrainian refugees tends to be slightly negative, but this “negative portrayal” does not stem from feeding into the Kremlin narrative, but from reporting on the problem on refugees, particularly as burden or an issue for receiving countries. So, an article that is reporting on the refugee problem can be construed as portraying the refugees in the negative light, particularly if reported with cold facts and no empathy. Dispassionate reporting, while being perhaps virtuous, means that many of the media outlets we perceive as

“pro-western” such N1 would have as many articles that portray refugees negatively as those that portray them positively.

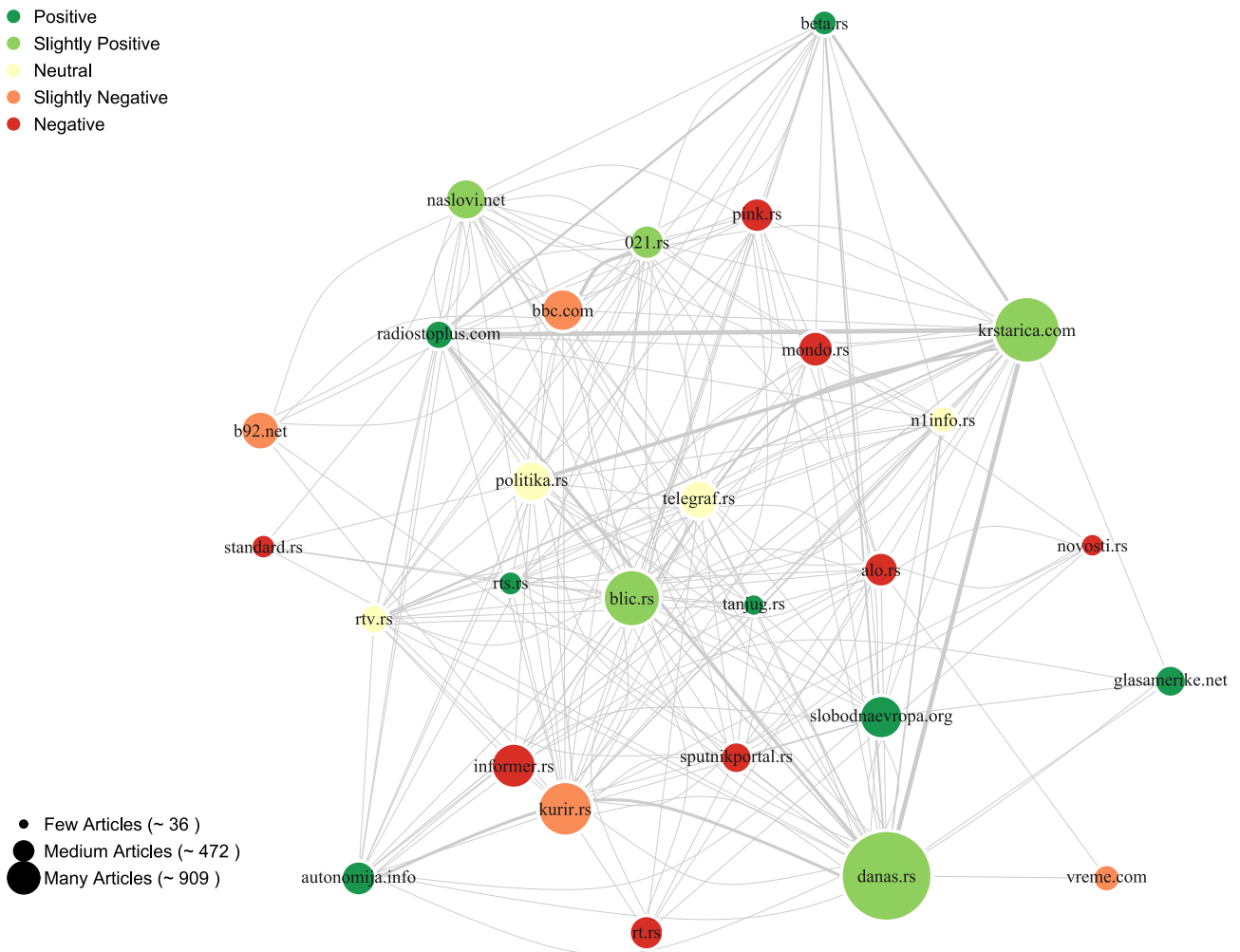


Figure 3. Duplicate articles between different media outlets

### The Russian influence is not blunt

Our analysis shows that there are no direct links between Sputnik and Russia Today Serbian outlets and Informer, the ruling party’s mouthpiece, in terms of direct regurgitation of news around Ukrainian refugees. In fact, direct regurgitation does not happen to the degree we suspected at all. There are few instances where the almost exact same news articles appear on Russia Today and Sputnik Serbian portals that are almost the same in the Serbian media (Figure 4).

Going into this research we expected to find more matching articles between the pro-Russian Serbian media and the Russian outlets. This indeed leads us to the conclusion that the Kremlin influence is not so overt as we originally thought.



Figure 4. Number of repeated articles from Sputnik and Russia Today by the analyzed media from Serbia.

## Topics – direct and indirect

The topic analysis of our media coverage reveals that the overwhelming majority of coverage, accounting for over 60% of articles, focused directly on humanitarian aid and refugees during the war in Ukraine which was most prominent at the beginning of the Russian invasion (Figure 5). This was followed by more specific coverage of the Ukrainian refugee crisis at nearly 6%, showing how the media distinguished between broad humanitarian aspects and specific refugee challenges. Notably, coverage extended beyond immediate crisis reporting to include substantial discussion of migration and asylum policies, particularly concerning tensions at international borders. Regional responses, especially from Serbia, Poland, and Germany, formed another significant cluster of coverage. The topic analysis also uncovered meaningful coverage of broader humanitarian crises, security implications of conflict-related migration, and EU cooperation efforts, though these topics appeared less frequently. This distribution of topics suggests that while Serbian media maintained strong focus on the immediate humanitarian situation, especially in the beginning of the war, but continued to report on the plight of the refugees, though through the lens of the news of the day.



Figure 5. Topic clusters of media articles mentioning Ukrainian refugees.



## **Main conclusions**

Serbian media coverage of Ukrainian refugees reflects a notable divide, with similar numbers of articles portraying refugees positively and negatively. However, positive articles have been declining at nearly twice the rate of negative ones over time. While many outlets, including those perceived as pro-Western, aim for neutral reporting, their focus on refugee challenges often results in unintentional negative framing, particularly when paired with emotionally charged or misleading headlines.

Contrary to expectations, Russian influence through outlets like Sputnik and Russia Today is subtle, with little direct regurgitation of Kremlin narratives in Serbian media. Initial coverage heavily emphasized humanitarian aid and the immediate impacts of the war, accounting for over 60% of the articles, before broadening to include migration policies, international border tensions, and regional responses. This analysis highlights the significant impact of media framing, showing how perceptions of refugees can be shaped by both overt bias and the unintentional consequences of dispassionate reporting on their challenges.

## Review

### **Miloš Miloradović**

Journalist, Communications Manager  
Independent Journalists' Association of Serbia

At the latest session of the Regulatory Authority for Electronic Media, a decision regarding the allocation of frequencies for Russia Today was discussed, but the outcome remains unknown. This best illustrates the nature of Russian influence in Serbia — non-transparent and subtle.

From this perspective, the media analysis of Ukrainian refugees is significant as it reveals the covert nature of Russian propaganda in Serbia while also reflecting the state of Serbian society — marked by significant divisions. The report notes that articles portraying refugees both positively and negatively appear in similar numbers. However, the number of positive articles has decreased almost twice as quickly as the negative ones.

The report has raised another issue related to Serbian media — media ethics. How familiar are Serbian journalists with the Serbian Journalists' Code of Ethics? How do they report on vulnerable groups, and how do they respect the privacy of these groups? Do journalists intentionally ignore the code because there are no sanctions for violations?

Notably, the European Federation of Journalists complemented the Serbian Journalists' Code of Ethics by publishing the Charter on Reporting on Refugees in 2012. The report clearly highlights the condition of Serbian journalism, where media often use headlines to attract audiences. These headlines shape readers' perceptions, emphasizing emotions and frequently create a negative impression, even when the article's content is neutral.

The report also points to the subtle but direct influence of Sputnik and Russia Today, acknowledging that this influence was expected to be significantly greater. In doing so, the report merely scratches the surface of a much more complex topic — the spread of Russian interests through Serbian media into the surrounding region, thereby destabilizing it. In this way, Serbia effectively exports disinformation. Unlike the common sources of disinformation globally, in Serbia, traditional media—alongside standard tabloids — play this role.



*This research is supported through the Digital Activism Program by TechSoup Global.*

Belgrade, December 2024

---

Catalyst Balkans  
Takovska 38/23  
11120 Belgrade  
Republic of Serbia

+381 11 405 7511  
info@catalystbalkans.org  
catalystbalkans.org  
@CatalystBalkans

