Spotify's Role in the Russo-Ukrainian Music World*

An Analysis of Russian and Ukrainian music popularity on Spotify following the 2022 Russian invasion of Ukraine

Ruty Korotaev

4/19/23

Following Russia's escalated invasion of Ukraine in February 2022, countries across the West and around the world have sought to end business dealings with Russian companies and boycott pro-Russian public figures, while making efforts to increase support for Ukraine. This widespread effort has gone from the highest levesl of business and government, to individuals opting to stop purchasing Russian goods and not engaging with Russian popular culture, including musicians. This report uses data collected from Spotify APIs to understand how the popularity of 10 top Russian and Ukrainian musicians has been affected by the ongoing violence. Among the key findings is that _____.

1 Introduction

Amid much of the Western world's efforts to sanction Kremlin-affiliated enterprises and Russian businesses, the movement to limit engagement with Russian popular culture has been an interesting side effect. Music has been an important vector of connection between Russia and Ukraine, as well as the global diaspora of these respective commmunities. Stemming from the Soviet period, where Russian music maintained cultural hegemony across the Soviet space, the development of Ukrainian-language music has been an important mode through which Ukrainians could reclaim their language and heritage {Berezutska (2023)}.Following Russia's escalated invasion of Ukraine in February 2022, many Ukrainians and Ukrainian allies have rejected any forms of cultural engagement with Russian artists and the Russian language, opting to listen to Ukrainian artists and support those who are advocating for Ukraine's war effort. This research paper looks at data collected through Spotify API to understand how these attitudes are translating into engagement levels and popularity of ten leading Russian

*Code and data are available at: https://github.com/rutykorotaev/finalpaper

and Ukrainian artists, including Alyona Alyona, Boombox, Skryapin, Okean Elzy, Kalush, Eldzhey, Jony, Egor Kreed, Noize MC, and Rauf & Faik. Further, this paper will seek to provide context for each artist that is analyzed, discussing how the personal politics may have any impact on the popularity levels of Russian and Ukrainian artists.

This paper is divided into several key sections. The Data section {Section 2}, will outline where the data is from and what main variables were explored in the dataset. All of the data visualizations will be included in this section and will seek to demonstrate how the popularity of each Russian and Ukrainian performer has evolved over time. Next, the Results section {Section 7} will provide an overview of the main findings that can be made by the data visualizations, which will be further explored within the {Section 8} section, which will have three main discussion points that draw on conclusions that can be made based on the data. The first point {Section 8.1} describes how_, ***while the second point {Section 8.2} explains. Finally, the third point {Section 8.3} stipulates that*** _. The project findings and limitations can be found in the last section {Section 8.4}, which will discuss the various issues with the dataset and its findings, as well as potential changes that could be made for future projects.

2 Data

This paper uses data collected using the Spotify API "spotifyr" (Charlie Thompson and Wolff 2022), and visualizes data from five top Russian artists and 5 top Ukrainian artists to understand how and if their popularity on Spotify has been affected since the start of the escalated invasion of Ukraine. As part of this, the main variables that were used in this project include popularity, year, artist name, and track number. This paper uses R (R Core Team 2020) to analyze the dataset, and several R packages were included in the project, including "tidyverse" (Wickham et al. 2019), "dplyr" (Wickham et al. 2021), "kableExtra" (Zhu 2021), and "knitr" (Xie 2021).

3 Data: Ukrainian Artist Popularity

4 Data: Russian Artist Popularity

5 Data: Russian and Ukrainian Artists Summary

6 Model

$$Pr(\theta|y) = \frac{Pr(y|\theta)Pr(\theta)}{Pr(y)} \tag{1}$$

7 Results

8 Discussion

8.1 First Finding:

8.2 Second Finding:

8.3 Third Finding:

8.4 Project Limitations and Next Steps

References

Berezutska, Maria. 2023. "Ukrainian Music in Shaping of National Identity: A 65 Years-Long Creative Path of a Bandura Ensemble in the Dnipro City's Cultural Space." *Journal of National Identities* 25: 75–96. https://doi.org/10.1080/14608944.2022.2060954.

Charlie Thompson, Josiah Parry, Daniel Antal, and Tom Wolff. 2022. *Spotifyr: R Wrapper for the "Spotify" Web API*. https://CRAN.R-project.org/package=spotifyr.

R Core Team. 2020. *R: A Language and Environment for Statistical Computing*. Vienna, Austria: R Foundation for Statistical Computing. https://www.R-project.org/.

Wickham, Hadley, Mara Averick, Jennifer Bryan, Winston Chang, Lucy D'Agostino McGowan, Romain François, Garrett Grolemund, et al. 2019. "Welcome to the tidyverse." *Journal of Open Source Software* 4 (43): 1686. https://doi.org/10.21105/joss.01686.

Wickham, Hadley, Romain François, Lionel Henry, and Kirill Müller. 2021. *Dplyr: A Grammar of Data Manipulation*. https://dplyr.tidyverse.org, https://github.com/tidyverse/dplyr.

Xie, Yihui. 2021. *Knitr: A General-Purpose Package for Dynamic Report Generation in r*. https://yihui.org/knitr/.

Zhu, Hao. 2021. *kableExtra: Construct Complex Table with 'Kable' and Pipe Syntax*. http://haozhu233.github.io/kableExtra/, https://github.com/haozhu233/kableExtra.