

EAST IS EAST, AND WEST IS WEST:

Ideological Segregation and Online News Communities in Ukraine

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Echo chambers and filter bubbles: myth or reality?

- Some studies suggest the presence of "echo chambers" and "filter bubbles" on social media (Sunstein 2017; Garimella et al. 2018) that might increase societal polarization and lead to political radicalization (Beaufort 2018)
- Others argue that news consumers on social media are not sorted into ideological clusters (Bakshy, Messing, and Adamic 2015; Flaxman, Goel, and Rao 2016; Zuiderveen Borgesius et al. 2016)

Motivation

Majority of the studies on social media news consumption and echo chambering and polarization on social media are focused on Western democracies which in many cases have lower levels of polarization than non-Western states, especially ones that are engaged in internal armed conflicts, such as the one going on in Eastern Ukraine

Study of polarization is pressing in such contexts since persistence of segregated communities can aggravate the hostilities and undermine conflict resolution efforts (Lynch, Freelon, and Aday 2017)

Research questions

RQ1: What is the place of news content, including partisan news content, in media diets of Ukrainian users on Vkontakte compared with other types of content (e.g. entertainment)?

RQ2: Is the consumption of partisan news content accompanied by the formation of isolated ideological communities (i.e. “filter bubbles”)?

RQ3: What is the relationship between demographic, geographic, and linguistic factors and the consumption of pro-Ukrainian and pro-Russian partisan news content?

Data

Public information of 50702 Vkontakte users with self-reported residence in Ukraine [years of birth, gender, places of residence, languages spoken, subscriptions to public pages]

Data was collected in June 2018 using Vkontakte's API and vkR package (Sorokin [2015] 2019)

Though Vkontakte was banned in Ukraine in May 2017, it is still constantly ranked among the top 10 sites in the country; #3 as of May 2019, while Facebook is #7 (“Top Sites in Ukraine - Alexa” n.d.)

Methods

1. Qualitative analysis and coding of public pages with at least 100 subscribers in the sample (n=4195) into 5 categories: entertainment (n=4015), news (n=112), politicians (n=1), technical (n=12), commerce (n=55).
2. Coding of news pages' partisanship (pro-Ukrainian/pro-Russian/neutral)
3. Examination of audience overlap between news pages using network-based audience duplication approach [co-exposure networks] (Webster and Ksiazek 2012), division of network into communities (Blondel et al. 2008)
4. Regression analysis to establish which factors [e.g. gender, age, language preferences, region of residence] influence subscription to partisan news communities

Findings

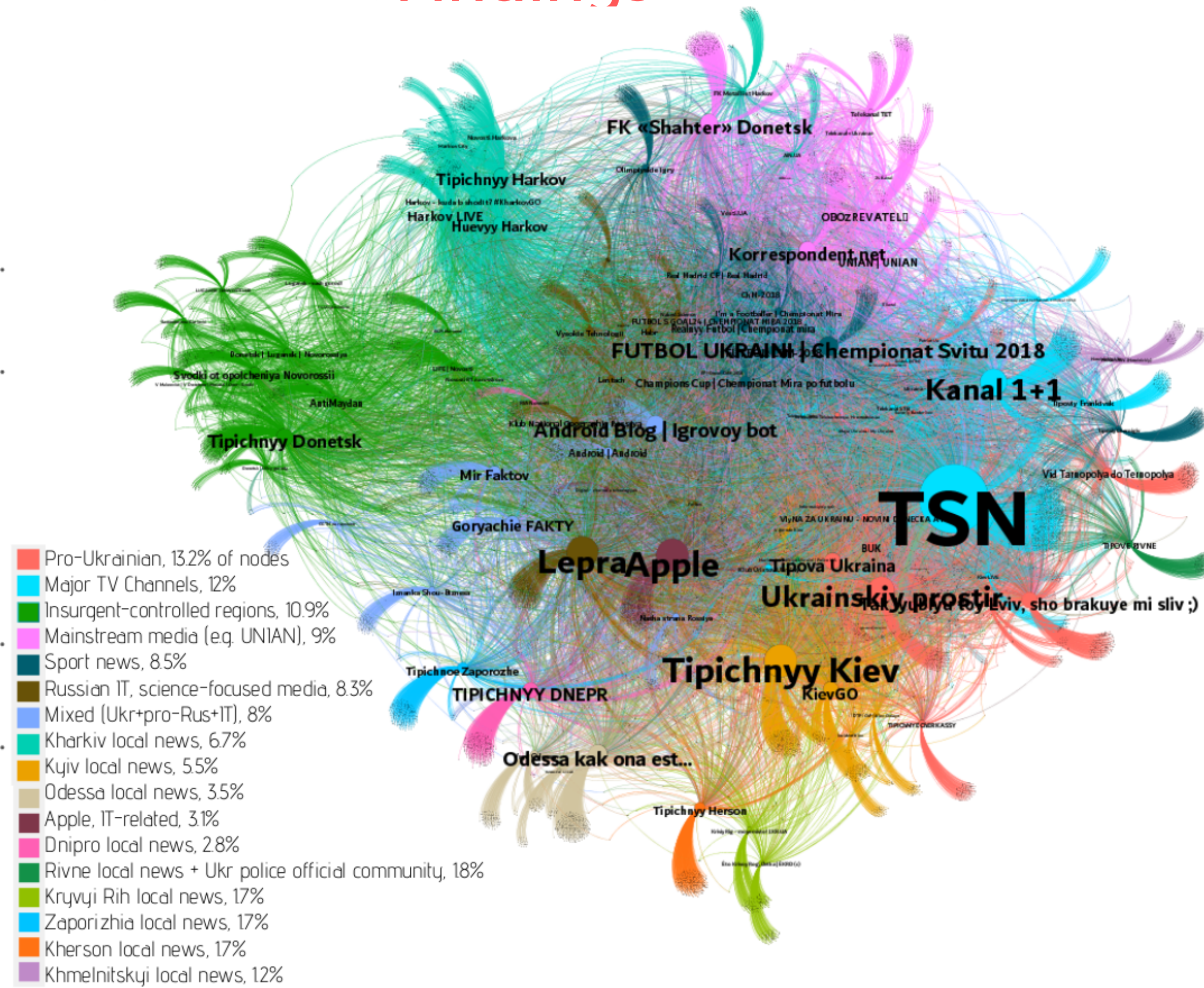
News pages are a minor part of Vkontakte's media ecology, but they still reach considerable proportions of the sample

News pages without a clear pro-Ukrainian or pro-Russian bias dominate in the sample. Pro-Russian pages are the least popular, contrary to widespread claims about the use of Vkontakte to spread pro-Russian sentiments in Ukraine

	N of communities	N of unique subscribers	Average n of subscribers
Neutral	63	11,105	284
Pro-Russian	13	2,131	182
Pro-Ukrainian	36	8,060	369

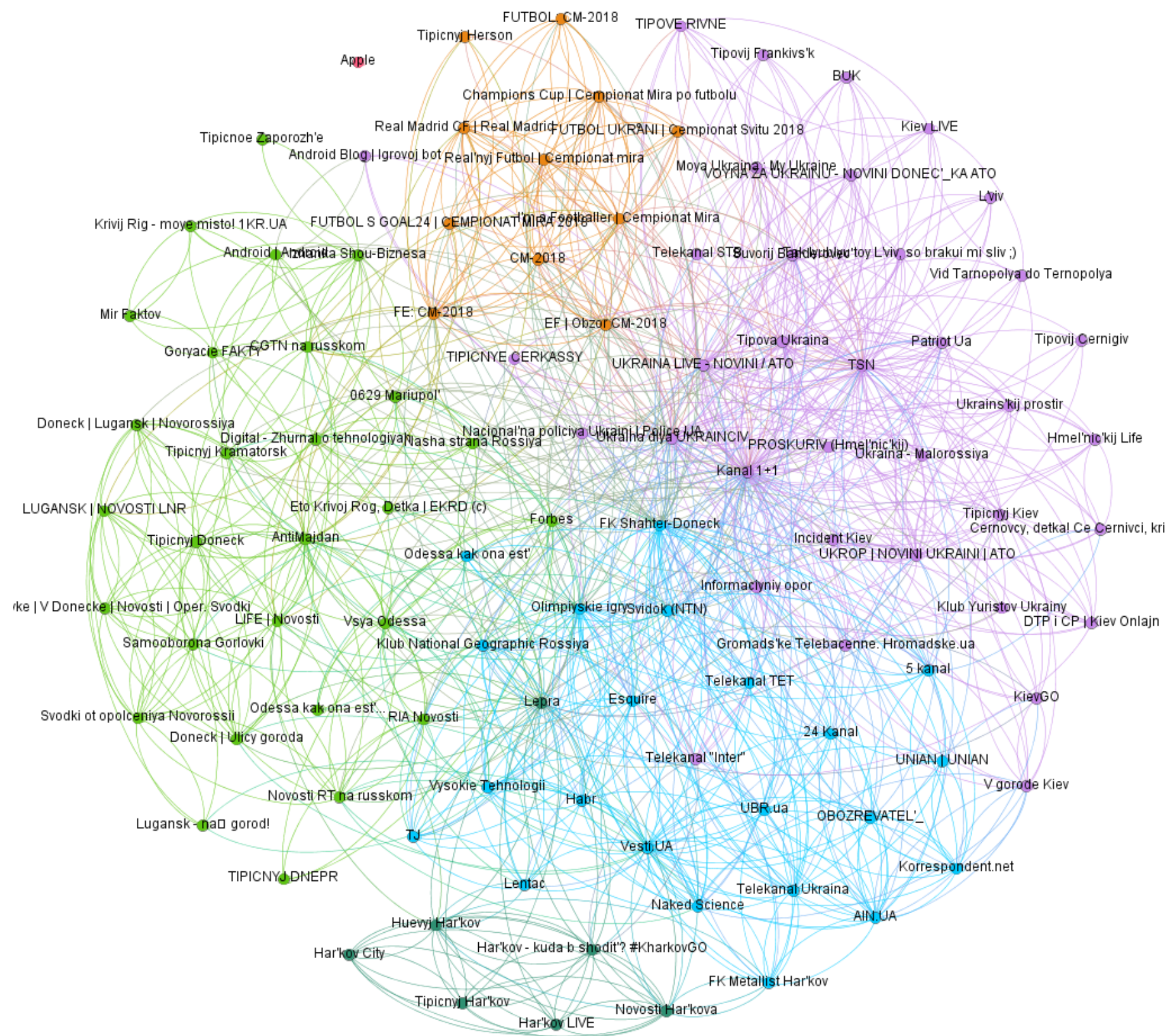
Findings

Followership user-page network is divided into 17 clusters and, in line with the previous findings (Gruzd and Tsyganova 2015), is fragmented along the geographical lines



Findings

Audience duplication network demonstrates that the dominant tightly interconnected communities are a pro-Russian one, a pro-Ukrainian one and one with legacy media, suggesting there is a rather high degree of partisan selective exposure present



Findings

Dependent variable	Subscription to pro-Ukrainian communities
Independent variable	Rating
Language: Ukrainian only	0.364*** (0.089)
Gender: male	-0.196*** (0.061)
Region [Crimea]	-1.438*** (0.283)
Region [East Ukr; DNR]	-1.901*** (0.121)
Region [East Ukr; state-controlled]	-0.728*** (0.090)
Region [East Ukr; LNR]	-2.038*** (0.204)
Region [South Ukr]	-0.818*** (0.099)
Region [West Ukr]	0.165** (0.082)
Constant	0.727*** (0.067)
Observations	5,001
Log Likelihood	-3,127.935
Akaike <u>Inf.</u> Crit.	6,273.870
Note:	*p<0.1; **p<0.05; ***p<0.01

Best predictors of subscription to pro-Ukrainian partisan pages are language preferences, gender and region of residence

Findings

Best predictors of subscription to pro-Russian partisan pages are region of residence and age

Dependent variable	Subscription to pro-Russian communities
Independent variable	Rating
Age [under 18]	0.371** (0.151)
Age [25-29]	-0.100 (0.138)
Age [30-49]	0.117 (0.117)
Age [50+]	-0.063 (0.189)
Region [Crimea]	-0.961 (0.725)
Region [East Ukr; DNR]	1.590*** (0.138)
Region [East Ukr; state-controlled]	0.121 (0.154)
Region [East Ukr; LNR]	1.864*** (0.190)
Region [South Ukr]	0.159 (0.169)
Region [West Ukr]	0.333** (0.130)
Constant	-2.478*** (0.128)
Observations	5,001
Log Likelihood	-1,766.222
Akaike <u>Inf.</u> Crit.	3,554.445
Note:	*p<0.1; **p<0.05; ***p<0.01

References

- Bakshy, E., S. Messing, and L. A. Adamic. 2015. “Exposure to Ideologically Diverse News and Opinion on Facebook.” *Science* 348 (6239): 1130–32. <https://doi.org/10.1126/science.aaa1160>.
- Beaufort, Maren. 2018. “Digital Media, Political Polarization and Challenges to Democracy.” *Information, Communication & Society* 21 (7): 915–20. <https://doi.org/10.1080/1369118X.2018.1451909>.
- “Blondel et Al. - 2008 - Fast Unfolding of Communities in Large Networks.Pdf.” n.d. Accessed May 26, 2019. <https://pdfs.semanticscholar.org/b434/c0199bbf38163abd5f995e76aa1619d39db9.pdf>.
- Blondel, Vincent D, Jean-Loup Guillaume, Renaud Lambiotte, and Etienne Lefebvre. 2008. “Fast Unfolding of Communities in Large Networks.” *Journal of Statistical Mechanics: Theory and Experiment* 2008 (10): P10008. <https://doi.org/10.1088/1742-5468/2008/10/P10008>.
- Flaxman, Seth, Sharad Goel, and Justin M. Rao. 2016. “Filter Bubbles, Echo Chambers, and Online News Consumption.” *Public Opinion Quarterly* 80 (S1): 298–320. <https://doi.org/10.1093/poq/nfw006>.
- Garimella, Kiran, Gianmarco De Francisci Morales, Aristides Gionis, and Michael Mathioudakis. 2018. “Political Discourse on Social Media: Echo Chambers, Gatekeepers, and the Price of Bipartisanship.” *ArXiv:1801.01665 [Cs]*, January. <http://arxiv.org/abs/1801.01665>.
- Gruzd, Anatoliy, and Ksenia Tsyganova. 2015. “Information Wars and Online Activism During the 2013/2014 Crisis in Ukraine: Examining the Social Structures of Pro- and Anti-Maidan Groups.” *Policy & Internet* 7 (2): 121–58. <https://doi.org/10.1002/poi3.91>.
- Lynch, Marc, Deen Freelon, and Sean Aday. 2017. “Online Clustering, Fear and Uncertainty in Egypt’s Transition.” *Democratization* 24 (6): 1159–77. <https://doi.org/10.1080/13510347.2017.1289179>.
- Sorokin, Dmitriy. (2015) 2019. Access to VK (Vkontakte) API via R. Contribute to Dementiy/VkR Development by Creating an Account on GitHub. R. <https://github.com/Dementiy/vkR>.
- Sunstein, Cass R. 2017. *#Republic: Divided Democracy in the Age of Social Media*. Princeton University Press.
- “Top Sites in Ukraine - Alexa.” n.d. Accessed May 20, 2019. <https://www.alexa.com/topsites/countries/UA>.
- Webster, James G., and Thomas B. Ksiazek. 2012. “The Dynamics of Audience Fragmentation: Public Attention in an Age of Digital Media.” *Journal of Communication* 62 (1): 39–56. <https://doi.org/10.1111/j.1460-2466.2011.01616.x>.
- Zuiderveen Borgesius, Frederik J. Zuiderveen, Damian Trilling, Judith Möller, Balázs Bodó, Claes H. de Vreese, and Natali Helberger. 2016. “Should We Worry about Filter Bubbles?” *Internet Policy Review*, March. <https://policyreview.info/articles/analysis/should-we-worry-about-filter-bubbles>.

Thank you!