Mapping Extremist Discourse Communities on Telegram

The Case of the Russian Imperial Movement and Its Affiliates

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Introduction

- Map discourse communities (Anderson 2006; Milliken 1999; Swales 2016)
 - Topics
 - Relations between topics
- The Russian Imperial Movement (RIM) (Stanford 2021; Gartenstein-Ross et al., 2020; Counter Extremism Project 2022; Pompeo 2020; Gaudette et al., 2021)
- Contextualize analysis of harmful online content



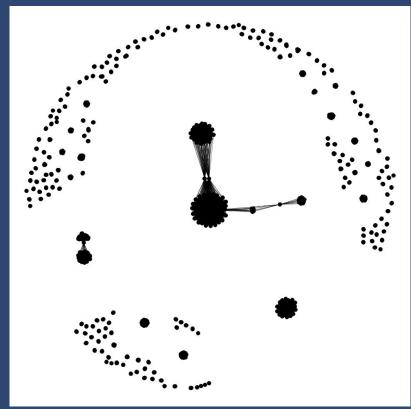
"A member of the Russian Imperial Movement, a nationalist group in Russia, near a banner reading 'God. Czar. Nation. We are Russians, God with us' at a training base near St. Petersburg on Feb. 28, 2015. (Olga Maltseva/AFP /Getty Images)." Washington Post washingtonpost.com/world/europe/russia-white-supremacist-terrorism-us/2020/04/11/255a9762-7a75-11ea-a311-adb1344719a9_story.html

Data & Analysis

Data retrieval

- 4Cat Capture and Analysis Toolkit (4CAT)
 (Peeters and Hagen 2022)
- Message-Level Telegram URL
 Co-Occurrence Network From
 @Rus_imperia and 24 of its affiliate
 channels
- Manual qualitative content analysis
- LDA topic modeling (Törnberg and Törnberg 2016; Maier et al., 2018)
- Network community detection (Himelboim et al., 2013)
 - o Louvain (Blondel et al., 2008)
 - Girvan-Newman (Girvan and Newman 2002)

Telegram URL Co-Occurrence Network

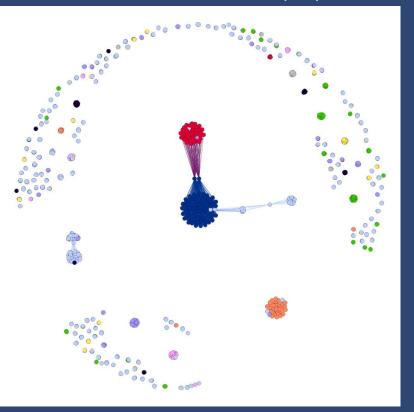


Results

- Qualitative content analysis
- Topic modeling
- Alignment with prior findings
 (Gartenstein-Ross et al., 2020;
 Stanford 2021;
 Counter Extremism Project 2022;
 Johnson and Feldman 2021)
- Large clusters devoted one or two primary topics

Message-Level Telegram URL Co-Occurrence Network Colored by Topic

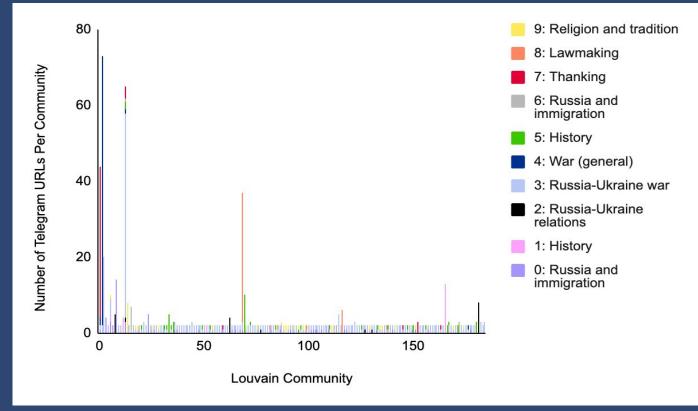
- 9: Religion and tradition
- 8: Lawmaking
- 7: Thanking
- 6: Russia and immigration
- 5: History
- 4: War (general)
- 3: Russia-Ukraine war
- 2: Russia-Ukraine relations
- 1: History
- 0: Russia and immigration



Results

- Louvain method
- Four largest communities primarily pertain to topics 7, 4, 3, and 8

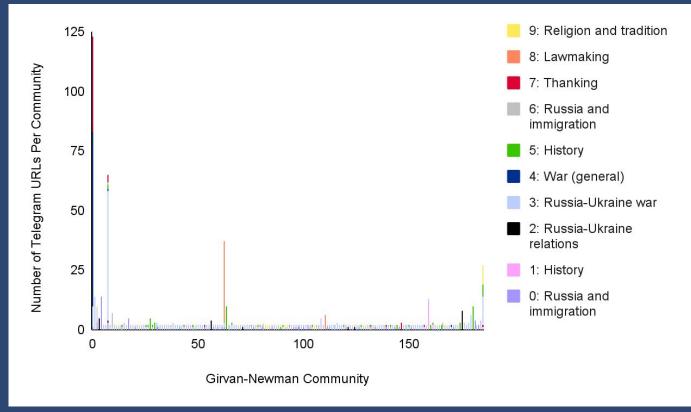
Topic Distribution by Louvain Community



Results

- Girvan-Newm an method
- Largest
 community is
 split between
 topics 4 and 7
- Other large communities pertain primarily to topics 3 and 8

Topic Distribution by Girvan-Newman Community



Conclusions

- May be possible to map discourse communities using topic modeling and community detection
 - Topics identified through topic modeling align with prior qualitative work
 - Clusters are primarily devoted to one or two topics
- It is unclear whether the association between topics is robust to different community detection methods
- Future research
 - Change over time and response to events
 - Response to introduction various forms of true and false information
 - Relationship between mis- and disinformation and extremist group behavior

Thank you

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Paper:

https://preprints.apsanet.org/engage/apsa/article-details/64b05ba1b053dad3 3a2e3035

GitHub:

https://github.com/smorrell6/Mapping-Extremist-Discourse-Communities-on-Telegram

References

Discourse Communities

Anderson, B. (2006). Imagined Communities: Reflections on the Origin and Spread of Nationalism. Verso.

Milliken, J. (1999). The Study of Discourse in International Relations: A Critique of Research and Methods. European Journal of International Relations, 5(2), 225-254.

Swales, J. M. (2016). Reflections on the concept of discourse community. *ASp*(69), 7-19. https://doi.org/10.4000/asp.4774

Russian Imperial Movement

Pompeo, M. R. (2020). United States Designates Russian Imperial Movement and Leaders as Global Terrorists

https://2017-2021.state.gov/united-states-designates-russian-imperial-movement-and-leaders-as-global-terrorists/index.html

"Russian Imperial Movement," (2022). Counter Extremism Project.

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Data Retrieval

Peeters, S., & Hagen, S. (2022). The 4CAT capture and analysis toolkit: A modular tool for transparent and traceable social media research. *Computational Communication Research*, 4(2), 571-589.

References (Cont.)

Topic modeling

Törnberg, A., & Törnberg, P. (2016). Muslims in social media discourse: Combining topic modeling and critical discourse analysis. *Discourse*, *Context* & *Media*, 13, 132-142. https://doi.org/10.1016/j.dcm.2016.04.003

Maier, D., Waldherr, A., Miltner, P., Wiedemann, G., Niekler, A., Keinert, A., Pfetsch, B., Heyer, G., Reber, U., Häussler, T., Schmid-Petri, H., & Adam, S. (2018). Applying LDA topic modeling in communication research: Toward a valid and reliable methodology. *Communication Methods and Measures*, 54(10), 1-26.

Community Detection

Himelboim, I., McCreery, S., & Smith, M. (2013). Birds of a Feather Tweet Together: Integrating Network and Content Analyses to Examine Cross-Ideology Exposure on Twitter. *Journal of Computer-Mediated Communication*, 18(2), 40-60. https://doi.org/10.1111/jcc4.12001

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Blondel, V. D., Guillaume, J. L., Lambiotte, R., & Lefebvre, E. (2008). Fast unfolding of communities in large networks. *Journal of statistical mechanics: theory and experiment*, 2008(10), P10008.

Girvan, M., & Newman, M. E. (2002). Community structure in social and biological networks. *Proceedings of the National Academy of Sciences*, 99(12), 7821-7826.

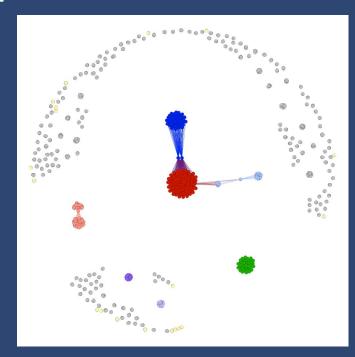
Supplementary Slides

Telegram Channel Name	Channel Subscribers	Messages in Dataset	Messages in Network
blackcolonel2020	7,202	35	2
bmpd_cast	30,747	48	4
brotherpilgrim	345	14	0
historyrussi	12,474	8	0
lorcencov	6,314	1	0
mnogonazi	74,181	9	1
nbondarik	3,323	297	32
notes_veterans	288,316	808	56
olegtsarov	270,322	40	3
oreshkins	47,271	258	8
Paddysay	6,791	18	1
readovkanews	1,318,490	49	1
Rus_imperia	2,259	18	2
Russia_and_anvil	1,700	10	0
sibrednek	989	1	1
stoglavrus	1,104	4	1
tsarkrest	17,456	178	19
verysexydasha	62,938	411	18
ZeRada1	306,499	524	1
Total	2,458,721	2731	150

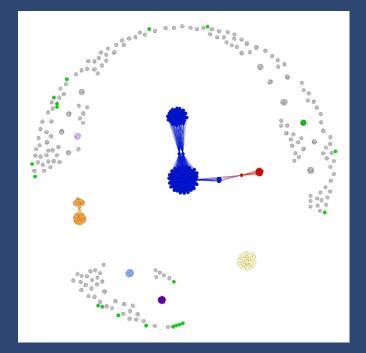
Topic	Label	Keywords	
0	Russia and immigration	каналы (channels), вообще (in general or generally), эксперта (expert), эксперты (experts), беженцев (refugees), решил (decided to), телеграм (Telegram), россию (Russia), кстати (by the way or incidentally), pф (Russian Federation), сша (USA), dimsmirnov175, verysexydasha, joinchat, удаленка (work from home)	
1	History	города (city), история (history or story), пошло (commonly, commonplace, or went), москва (Moscow), московского (Moscow), истории (history or story), полка (regiment or shelf), факты (facts), москве (Moscow), метро (metro), каком (which), правда (true or truth), китай (China or Chinese), канал (channel), moshistory	
2	Russia- Ukraine relations	русские (Russian), играть (play), русофобов (Russophobes), стоит (cost or worth), поэтому (therefore), украину (Ukraine), причём (moreover), сбор (collection, tax, or fee), русофобия (Russophobia), проблема (problems), учить (to teach, learn, or punish), средств (funds, means, or resources), tsarkrest, россии (Russia), русских (Russians)	
3	Russia- Ukraine War	движение (movement), русских (Russians), более (more), украине (Ukraine), россия (Russia), больше (more), notes_veterans, людей (people), украины (Ukraine or Ukrainian), всу (Armed Forces of Ukraine), наших (our), россии (Russia), nbondarik, русские (Russian), канал (channel)	
4	War (general)	aviatica, impnavigator, вестник (newspaper or journal), оперативная (operational), войны (war or warfare), militarymaps, морские (sea, marine, or maritime), ядерный (nuclear), линия (line), контроль (control), zvezdanews, ru, пво (air defense), морской (sea, marine, or maritime), новости (news)	
5	History	фактов (facts), прошу (please, ask, or beg), граждан (citizens or nationals), москве (Moscow), prezidentgordonteam, месте (place or area), pф (Russian Federation), москвы (Moscow), история (history or story), истории (history or story), текст (text), фронт (front or front line), ответственности (responsibility or liability), com, moshistory	
6	Russia and immigration	com, средней (average), жители (people or residents), фронте (front), чат (chat), решение (decision), ответственности (responsibility or liability), мигрантов (migrants), привлечь (attract, draw, or bring), территории (territory), статье (article), vk, города (city), ук (criminal code), рф (Russian Federation)	
7	Thanking	благодарим (thank), подводных (underwater, undersea, or submarine), subforcherald, prbezposhady, новостей (news), улыбаемся (smile), машем (wave or waving), бизнес (business), tolk_tolk, поздравляем (congratulations), planeradar, zangaro, korea, читателей (readers), bbbreaking	
8	Lawmaking	mariashukshina, кавказ (Caucasus), депутат (deputy, member, or lawmaker), аудиторию (audience), канал (channel), obrazbuduschego2, russica2, проект (project), граждан (citizens or nationals), людей (people), kremlebezbashennik, bigtransfer2024, дмитрий (Dmitry), народ (people or nation), страны (country)	
9	Religion and tradition	жизни (life or living), правильно (right or correct), бог (God), традиции (tradition, traditions, or traditional), интернет (internet), юмором (humor), imsindi_z, наших (our), сергея (Sergei), россии (Russia), записки (note or brief), anti_rubra, целом (general or whole), expensive_hurma,	

dadlantatard

Results: Community Detection



Graph Colored by Louvian Community



Graph Colored by Girvan-Newman Community