

Public Discourse in the Russian Blogosphere: Mapping RuNet Politics and Mobilization

By Bruce Etling, Karina Alexanyan, John Kelly, Robert Faris, John Palfrey, and Urs Gasser



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About this paper

The Berkman Center for Internet & Society at Harvard University, with funding from the MacArthur Foundation, is undertaking a two-year research project to investigate the role of the Internet in Russian society. The study will include a number of interrelated areas of inquiry that contribute to and draw upon the Russian Internet, including the Russian blogosphere, Twitter, and the online media ecology. In addition to investigating a number of core Internet and communications questions, a key goal for the project is to test, refine, and integrate various methodological approaches to the study of the Internet more broadly. More information about the project is available on the Berkman Center website: http://cyber.law.harvard.edu.

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Abstract

We analyzed Russian blogs to discover networks of discussion around politics and public affairs. Beginning with an initial set of over five million blogs, we used social network analysis to identify a highly active 'Discussion Core' of over 11,000. These were clustered according to long term patterns of citations within posts, and the resulting segmentation characterized through both automated and human content analysis. Key findings include:

- Unlike their counterparts in the U.S. and elsewhere, Russian bloggers prefer platforms that combine features typical of blogs with features of social network services (SNSs) like Facebook. Russian blogging is dominated by a handful of these "SNS hybrids."
- While the larger Russian blogosphere is highly divided according to platform, there is a central Discussion Core that contains the majority of political and public affairs discourse. This core is comprised mainly, though not exclusively, of blogs on the LiveJournal platform.
- The Discussion Core features four major groupings:
 - Politics and Public Affairs (including news-focused discussion, business and finance, social activists, and political movements)
 - Culture (including literature, cinema, high culture, and popular culture)
 - Regional (bloggers in Belarus, Ukraine, Armenia, Israel, etc.)
 - Instrumental (paid blogging and blogging for external incentives)
- Political/public affairs bloggers cover a broad spectrum of attitudes and agendas and include many who discuss politics from an independent standpoint, as well as those affiliated with offline political and social movements, including strong 'Democratic Opposition' and 'Nationalist' clusters.
- The Russian political blogosphere supports more cross-linking debate than others we have studied (including those of the U.S. and Iran), and appears less subject to the formation of self-referential 'echo chambers.'
- Pro-government bloggers are not especially prominent and do not constitute their own cluster, but are mostly located in a part of the network featuring general discussion of Russian public affairs. However, there is a concentration of bloggers affiliated with pro-government youth groups among the Instrumental bloggers.
- We find evidence of political and social mobilization, particularly in those clusters affiliated with offline political and social movements.
- The online 'news diet' of Russian bloggers is more independent, international, and oppositional than that of Russian Internet users overall, and far more so than that of non-Internet users, who are more reliant upon state-controlled federal TV channels.
- Popular political YouTube videos focus on corruption and abuse of power by elites, the government, and the police.

1. Introduction

In March 2010, the Mercedes Benz of Lukoil vice-president Anatoly Barkov collided with a compact Citroën hatchback, injuring Barkov and killing the smaller car's driver, a well-known doctor, and her daughter-in-law, the mother of a two-year old and a doctor herself. It remains unclear today who is to blame for the accident, but at the time the police blamed the Citroën driver, claiming she had swerved into traffic. The police failed to produce any evidence for this claim, despite the presence of security cameras that line the busy highway. Sensing a cover up, Russian bloggers and the Federation of Russian Car Owners, a largely online movement that has assisted in a number of similar cases, quickly took up the victim's cause by identifying witnesses and pressing the case online and in the traditional media. A Russian rapper, Noize MC, wrote a song about the incident, 'Mercedes S-666,' and posted the video on YouTube. In it he blames Barkov for the accident and compares him to a police officer who went on a shooting spree in a shopping mall earlier in the year. The video collected 600,000 hits in just a few days, and the story quickly became one of the most popular in the Russian blogosphere. Some bloggers began calling for a boycott of Lukoil gas stations. Eventually, President Medvedev asked for a full investigation. The police reopened the case and cleared Barkov of any wrongdoing in September of 2010. Nonetheless, the widespread public outrage over this and similar accidents has led to a sustained campaign against officials who violate traffic laws while riding in their conspicuously expensive foreign sedans with blue flashing lights and special license plates. In many protests, drivers mockingly attach blue plastic beach buckets to their cars.

In November 2009, police major Alexander Dymovsky uploaded two videos to YouTube, in a direct appeal to Prime Minister Putin and his fellow officers to put a stop to widespread corruption in the police force He decided to act after being harassed by his superiors for earlier phoning an annual call-in show when Putin was still President. He had told the operator that he wanted to ask the President what he would do to address corruption and lawlessness in Russia. Dymovsky was not put on the air, but his phone call was traced and his supervisors informed by the Russian Interior Ministry. The videos have attracted over 2 million hits and the story has achieved widespread attention in the international media, while Russian federal TV channels have remained largely silent about the matter. In retaliation for posting the videos, Dymovsky was promptly fired from his job, investigated, and charged with abuse of office and fraud under a law governing state secrets.¹ Although he did not win his job back, the charges were later dropped, and his tactics have been adopted by other Russians who appeal directly via YouTube to the Kremlin to protest abuse of power and corruption at the local level.

These two stories demonstrate the power and limits of the Internet's growing role in Russian society. Anyone with access can criticize the government and other powerful interests, but there are often consequences. The Internet can help spread knowledge and increase debate about corruption, but decisions that favor the powerful are not necessarily overturned.

¹ Clifford J. Levy, "Videos Rouse Russians Anger Towards Police" New York Times, July 27, 2010, http://www.nytimes.com/2010/07/28/world/europe/28russia.html (accessed October 15, 2010).

The impact of the Internet in both open and closed societies is vigorously debated. In the *Wealth of Networks*, Yochai Benkler explains the potential for the Internet to positively transform human interaction, individual autonomy, and the media. Benkler argues that the benefit of a networked communication system is that it alters a society's media architecture by allowing multi-directional information flows and reduces the cost of reaching a wide audience. Individuals can become active creators and producers of politically relevant information, participating easily online. Benkler portrays the networked public sphere as an online space where members of society can cooperate, present political opinions, and collectively serve as watchdogs over the society, all through an online, cooperative, peer-produced model that is less subject to state authority. In authoritarian regimes, networked communications allow ideas to flow more easily around traditional state controls. Furthermore, regimes that limit access and connectivity may incur heavy costs in doing so. The Internet does not lead automatically to liberal, open public spheres in countries ruled by authoritarian regimes, but it makes these societies harder and more costly to control.²

Cass Sunstein, whose analysis is focused primarily on the Internet's impact in English-speaking, democratic countries, takes a much more critical view of the Internet's impact, arguing that the Internet tends to create echo chambers, where users with similar interests self-select into small groups of likeminded individuals. This results in divisions and polarization within society, as citizens filter out the news and information that does not fit their pre-existing views.³ Kristin Lord also adopts a pessimistic view about the information revolution and the hype around its potential to bring greater democracy and peace. Lord points out the ways that new media also transmit damaging information and misinformation, and can spread hatred and conflict as easily as peace and understanding.⁴ Kalathil and Boas, in a 2003 study, question the assumption that the Internet will lead to political change in authoritarian regimes, arguing that: states are able to influence the online space by building on their traditional control over ICTs and ICT policy; states use sophisticated online propaganda; states effectively constrain online political threats through 'soft' control methods, such as filtering and restricting access; and, that few opposition parties and CSOs are online. And ultimately, they argue, access is limited mostly to elites, who tend to be risk averse in their use of the medium, and that only a handful of dissidents can gain access in the most restrictive regimes.⁵

Rather than argue in broad terms about the Internet's effects, we take a more focused approach. Our perspective is that while Internet-based communications are changing the dynamics of political communication around the world, the effects of these changes may vary widely from

² Yochai Benkler, *The Wealth of Networks: How Social Production Transforms Markets and Freedom* (New Haven: Yale University Press, 2006).

³ Cass Sunstein, *Republic.com* (Princeton: Princeton University Press, 2001); see also Cass Sunstein, 'The Daily We,' *Boston Review*, Summer 2001, http://bostonreview.net/BR26.3/sunstein.html (accessed November 26, 2007).

⁴ Kristin Lord, *The Perils and Promise of Global Transparency: Why the Information Revolution May Not Lead to Security, Democracy, or Peace* (Albany: SUNY Press, 2006).

⁵ Shanti Kalathil and Taylor Boas, *Open Networks, Closed Regimes: The Impact of the Internet on Authoritarian Rule* (Washington, DC: Carnegie Endowment for International Peace, 2003).

society to society. The way each society creates, accesses, uses, and shapes information is a reflection of its particular political culture and media system, to draw upon the model promoted by Blumler and Gurevitch. There is much to be gained when one looks deeply at an individual country and how the Internet is adopted and used by citizens; and at the same time restricted, engaged, or left free by the government. ⁶

Russia, which we found has a very distinctive online culture and practices, is an intriguing case study for a number of reasons:

- First, by any number of measures,⁷ Russia is at best a thin, electoral democracy, and some argue it represents a new type of hybrid regime that might be called 'contested authoritarianism.'⁸ However one chooses to label Russia's political system, most observers agree that the government maintains tight control over politics and the economy, and to a lesser extent over critical aspects of the media and society. The system is not nearly as restrictive as the Soviet Union, but it is also far from free.
- Second, control over the media system is mixed. Federal TV is tightly controlled by the Kremlin and its proxies, and is an important tool of political control. However, other media are given more independence and freedom, to write and report on what they wish. Prime Minister Putin has held up the number of independent newspapers, radio stations, and Webnative outlets as proof that the Kremlin does not control the media, and that even if it wanted to, it could not do so.
- Third, for a state that leans closer to other semi-authoritarian states like China and Iran in its level of control over government, economy, and some aspects of media, it does not technically filter the Web, whereas China and Iran have two of the most advanced technical filtering systems in the world. OpenNet Initiative (ONI) testing confirms that Russia does not engage in 'first generation' technical filtering of the Web. However, ONI argues that Russia and other CIS countries instead engage, and may even be a model for, more subtle second and third generation controls over the Internet, marked by attempts to engage and shape the online space into one of its liking through paid bloggers, influence over major ISPs and Internet companies, and a legal framework that allows it engage in surveillance and control of the Internet, especially during times of heightened political tensions. In Russia, legal tools include SORM II, which requires ISPs to give the FSB access to any and all content online,

⁶ Michael Gurevitch and Jay G. Blumler, "State of the art in comparative political communication research: poised for maturity?" in *Comparing political communication: theories, cases, and challenges,* ed. Frank Esser and Barbara Pfetsch (Cambridge: Cambridge University Press, 2004).

⁷ The Economist Intelligence Unit ranks Russia 107th out of 167 countries in its 2008 Democracy Rankings (just below Burundi and just above Pakistan), see http://graphics.eiu.com/PDF/Democracy%20 Index%202008.pdf (accessed October 13, 2010).

⁸ Larry Diamond, "Thinking About Hybrid Regimes," *Journal of Democracy* 13: 2 (2002): 21-35; see also Steven Levitsky and Lucan Way, "The Rise of Competitive Authoritarianism," *Journal of Democracy* 13: 2 (2002): 51-65.

and a broad extremism law that allows courts to shut down individual Web sites or blogs that promote extremism. Still, relatively few bloggers are jailed compared to China, Iran, Egypt, and Saudi Arabia, and the most pervasive forms of online control in the Russian language Internet occur in Russia's more authoritarian neighbors, Belarus and Kazakhstan.⁹

• Finally, in Russia, and, indeed, in every other country around the world, there is a great deal of speculation about the impact of the Internet on politics, opposition political parties, civil society, social movements, and other groups whose actions are more restricted in Russia, as well as the role of the state itself online. Fossato and Lloyd, in a widely cited English language study of the impact of the Internet on Russian civil society, conclude that: the qualitative level of Internet discussion is low; lack of trust is widespread and on occasion skillfully manipulated by authorities; online networks seem to be generally rather closed and intolerant; leaders of Internet sites can often be co-opted, compromised or frightened; and that Russian Internet users appear not to respond actively to political campaigning on the Web. ¹⁰

We do not intend in this paper to settle the larger debate about the impact of the Internet in controlled societies. Instead, we focus on political and public affairs discussion in one part of the Russian Internet, the blogosphere, and use a mix of quantitative and qualitative methods to answer the following set of research questions that contribute to aspects of these larger debates:

- 1. Using network analysis of hyperlinks, what are the structural characteristics of political and public affairs blogging in the Russian Internet (RuNet), and how does this network compare to others we have studied? Does it exhibit key characteristics of a networked public sphere as defined by Benkler? Does it exhibit polarization as predicted by Sunstein, such as we see in liberal and conservative 'echo chambers' in the U.S. network?
- 2. What kinds of concerns and viewpoints are found in the portions of the network where political discourse is concentrated?
- 3. Where do Russian political bloggers fit in the larger Russian media ecology, and how does their use of news sources compare with internet users in general, and the wider public?
- 4. To what extent do we see evidence of political and social mobilization for collective action in the blogosphere?

⁹ Ronald Deibert, John Palfrey, Rafal Rohozinski and Jonathan Zittrain, *Access Controlled: The Shaping of Power, Rights, and Rule in Cyberspace* (Cambridge: MIT Press, 2010); and John Palfrey, Jonathan Zittrain, Ron Deibert and Rafal Rohozinski, *Access Denied: The Practice and Policy of Global Internet Filtering* (Cambridge: MIT Press, 2008); additional research is available at http://opennet.net/

¹⁰ Florianna Fossato and John Lloyd, "The Web that Failed: How opposition politics and independent initiatives are failing on the Internet in Russia," Reuters Institute for the Study of Journalism, University of Oxford, September 2008, http://reutersinstitute.politics.ox.ac.uk/fileadmin/documents/Publications/ The_Web_that_Failed.pdf (accessed October 12, 2010).

2. The Russian Media Ecology

2.1 Traditional Media in Russia

Traditional media in Russia have gone from a period of total state control during the Soviet Union, to one of great openness and privatization following the collapse of the Soviet Union, to a current hybrid model, where the Kremlin actively controls the far reaching national television news, while allowing television entertainment to flourish, and permitting a marginalized independent media.

After entering the national political stage in 1999, Vladimir Putin quickly moved to reverse the rampant privatization of national media outlets. Today, the media situation can be described as partial nationalization, with complete censorship of certain topics and outlets. With all of Russia's federal television stations under the direct control of the Kremlin or state-owned enterprises such as Gazprom, national television comes to serve, as Maria Lipman and Michael McFaul argue, as an important tool of political control.¹¹

Television is the only mass medium that has nationwide reach, and is an important tool used to promote the popularity of the administration. Masha Lipman argues that when Putin became president, he clearly understood the political power of television, and moved quickly to put it under his control.¹²

Steven White, Sarah Oates and Ian McAllister have also shown that the 1999 parliamentary elections, and the 2000 presidential election in which Putin became president, were won in large part through the partisan use of state television. ¹³

The sophisticated television media strategy combines a 'top down' approach to political coverage, with a stimulating and competitive entertainment market. Simply put, audiences drawn by high quality entertainment programming stay on to watch the government-approved news.

Together, the federal TV channels shape electoral opinion through various agenda setting and narrative shaping functions. This control includes, according to Peter Baker and Susan Glasser, weekly meetings between Kremlin officials and television producers from major networks where pro-government talking points are distributed, expected news topics discussed and approaches to news stories suggested.¹⁴ This pattern of TV control has not shifted under Medvedev.

¹¹ Maria Lipman and Michael McFaul, "The Media and Political Developments," in *After Putin's Russia: Past Imperfect, Future Uncertain*, ed. Stephen K. Wegren and Dale R. Herspring, (Lanham: Rowman and Littlefield Publishers, 2010); see also Adam Federman, "Moscow's New Rules: Islands of press freedom in a country of control," Columbia Journalism Review, January/February, 2010, http://www.cjr.org/feature/moscows_new_rules.php (accessed October 15, 2010).

 ¹² Maria Lipman, "Constrained or Irrelevant: The Media in Putin's Russia," *Current History* 104: 684 (2005).
¹³ Stephen White, Sara Oates and Ian McAllister, "Media Effects and Russian Elections, 1999-2000," *British Journal of Political Science* 35: 2 (April 2005): 191-208.

¹⁴ Peter Baker and Susan Glasser, *Kremlin Rising: Vladimir Putin's Russia and the End of Revolution* (Washington, DC: Potomac Books, 2007).

Russian newspapers, radio stations, and Web-based news sites enjoy much more freedom than federal TV. Some have argued that these media are allowed to be more independent than television because they have generally small audiences that are limited to major cities - even the most widely read papers, for instance, have circulations only in the hundreds of thousands, while television reaches almost the entire population.¹⁵ One of the few remaining independent radio stations, *Ekho Moskvy* (Echo of Moscow), which has a listening audience of about 900,000, also enjoys more freedom than television, but is pressured by the government when coverage is critical of the Kremlin.¹⁶ According to Lipman and McFaul, Russia's national TV outlets compared to independent media are strikingly different in their choices of news priorities and newsmakers, as well as in general tone. The picture one gets of the situation in Russia from reading and listening to independent news sources is entirely different than that put forward by federal TV. ¹⁷

2.2 Internet Penetration and Usage in Russia

Nationwide, Russian Internet penetration is relatively low, at about 37% of the population, but it is growing rapidly. The rate of growth in the Russian Federation has been steady and exponential, especially in areas outside Moscow. During the years between 2002 and 2010, the percentage of Internet users increased almost sixfold, from around 5% to around 35%. In Moscow, the pace was a bit slower, but still impressive, with penetration more than doubling over the same period, from 27% to 60%.¹⁸

The RuNet remains an elite and stratified medium, dominated by urban and educated users with a marked divide between the major cities and exurban areas. The high Internet penetration and usage rates of Moscow and St. Petersburg do not apply to the rest of the country. At the national level, Russia's current Internet penetration of 37% can be compared to Brazil's, which is around 36%.

Although Russia's 37 million regular internet users are less than 40% of the population, those that do go online, do so relatively frequently, and with a passion for social media. In fact, if the statistics are to be trusted, the percentage of active Internet users that blog and use social networking sites is consistently higher in Russia than in the U.S. and those who do use social networking sites are more 'engaged' than their counterparts in other countries. ¹⁹

¹⁵ Lipman, 2005.

¹⁶ David Remnick, "Echo in the Dark," *The New Yorker*, September 22, 2008, http://www.newyorker.com/ reporting/2008/09/22/080922fa_fact_remnick (accessed December 14, 2008).

¹⁷ Lipman and McFaul, 2010.

 ¹⁸ FOM Public Opinion Foundation, "Internet in Russia, Special Release" (March, 2009) http://bd.fom. ru/report/cat/smi/smi_int/int0309 (accessed September 2010); see also, "Internet in Russia Spring 2010," http://bd.fom.ru/report/map/bntergum07/internet/internet1029/vesna2010 (accessed September 14, 2010).
¹⁹ Comscore "Russia Has World's Most Engaged Social Networking Audience" (July 2, 2009) http://www.comscore.com/Press_Events/Press_Releases/2009/7/Russia_has_World_s_Most_Engaged_Social_Networking_Audience (accessed August 21, 2009).

Source Question 1 - Where do you most often find interesting information? (choose up to 3)

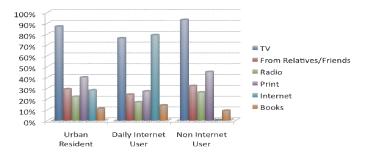


Figure 1: Sources of information. (FOM)

Source Question 2 – Which Source Do You Trust the Most?

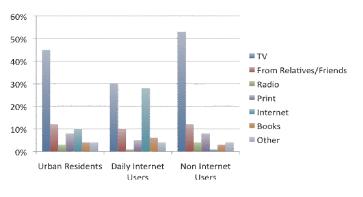


Figure 2: Trust in sources. (FOM)

According to a 2010 FOM survey, the most active group of Internet users in Russia are 18-24 year olds (62%). A another study by the Russian Foundation for Internet Development found that blogging was the activity most frequently undertaken by 14-17 year olds online (above listing to music, chatting online, social networking, and 10 other online activities), which diverges from the U.S., where younger users are less likely to take up blogging.²⁰

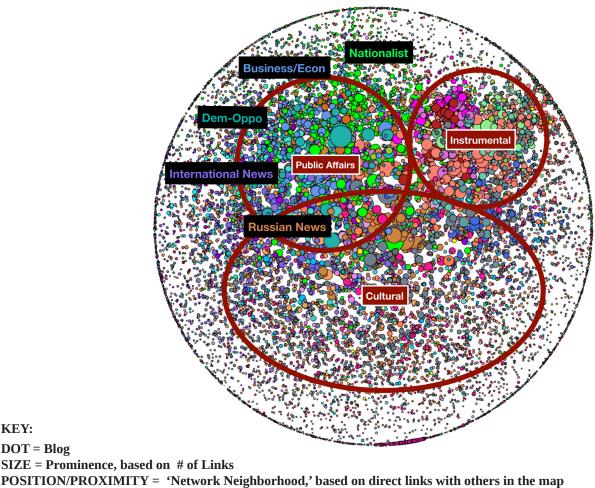
According to a 2009 nationwide FOM poll,²¹ there is a significant difference between Internet users, non-users, and average urban residents in terms of where they most often find 'interesting information,' and, perhaps more importantly, how much they trust that information. For daily Internet users, the Internet is rapidly gaining on television as the most trusted source of information, and already exceeds television as the best place to find information. For Russian non-Internet users, TV is by far the most trusted source of information. By comparison, in the U.S., local television is the top news source for Americans (78%), followed by the Internet (61%), radio (54%), and local newspapers (50%). Over 90% of Americans get their news from more than one platform.²²

²⁰ Galina Soldatova, "Russian Schoolchildren as Internet Users: Types and Risk Groups," Foundation for Internet Development, 2009, http://www.fid.ru; on decreasing use of blogging by U.S. teens and young adults see: by Amanda Lenhart, Kristen Purcell, Aaron Smith, Kathryn Zickuhr, "Social Media and Young Adults," Pew Internet and American Life Project, February 3, 2010, http://pewinternet.org/Reports/2010/ Social-Media-and-Young-Adults/Summary-of-Findings.aspx?r=1 (accessed October 5, 2010).

²¹ FOM Public Opinion Foundation, "Internet in Russia, Special Release," http://bd.fom.ru/report/cat/smi/ smi_int/d091617, March 2009.

²² Kristen Purcell, Lee Rainie, Amy Mitchell, Tom Rosenstiel, Kenny Olmstead, "Understanding the Participatory News Consumer," Pew Internet and American Life Project, March 1, 2010, http://www.pewinternet.org/Reports/2010/Online-News/Summary-of-Findings.aspx (accessed October 12, 2010).

3. Methods Overview and Network Structure



COLOR = Attentive Cluster, bloggers who cite similar resources

Figure 3: Social Network Map of the Russian Blogosphere's Discussion Core.

In order to better understand Russia's 'networked public sphere,' we focused on the active participants in online discussion around politics and public affairs, who themselves comprise an elite among Russia's Internet users. In fact, how these 'peer-producers' of Russia's online public sphere differ from Russia's Internet users in general, and the wider public, is an interesting question. We used a combination of methods to map and analyze the Russian blogosphere, and then concentrate on areas where political and public affairs discourse is most prevalent. These methods include social network analysis of the linking behavior of Russian bloggers, automated text analysis of blog content, and human coding of individual blogs and hyperlink targets. The analytic approach of this study is based on the principle that macro structure arises from the tendency of individuals to link more frequently to things that interest them and to people with whom they share attributes or social relations. This reflects social behaviors that are well understood in other social scientific contexts. Sociology has an extensive literature on *homophily*, the tendency of

social actors to forms ties with similar others.²³ Communications research details complex processes of *selective exposure*, by which people choose what media to experience, interpret what is experienced, and remember or forget that experience according to their prior interests and beliefs.²⁴ In the blogosphere, individual preferences are expressed as choices about what to read, write about, link to, and comment upon. As Benkler notes, linking to those you agree or disagree with is at the very core of blogging and is inherently easy in blog platforms. The result of this online linking behavior is a discourse network, tractable to research as a massive online corpus of text and hyperlinks. By mapping this network and viewing these bloggers' communications, we achieve a graphical depiction of the blogosphere imaginatively analogous to an fMRI of the social mind.

The basis of the social network analysis and blog selection is a corpus of Russian language blogs. We started with approximately five million blogs found in the Yandex blog index in May of 2009, and used networked-based 'snowball' techniques for identifying several thousand additional Russian language bloggers.²⁵ The vast majority of these blogs were found to be inactive, or very slightly active. We have collected data for approximately one million active blogs from May 2009 through September 2010.

Compared with networks we have studied previously, the Russian blogosphere has unique characteristics that made it a challenge to analyze and required that we adapt our methods. Unlike the U.S., Persian and Arabic blogospheres, which are for the most part structurally unaffected by the blog platforms authors use, the Russian network is shaped to a very strong degree by the more closed nature of the most popular blogging platforms. These platforms, which we call Social Network Systems ('SNS') hybrids, combine features typical of open blog platforms (e.g. Blogspot, Wordpress) with features of closed social network services (e.g. Facebook, MySpace). The Russian language blogosphere is dominated by four such SNS hybrids (LiveInternet, Ya.ru, blog.mail.ru and LiveJournal). (Twitter has also seen recent exponential growth in Russia; we are undertaking an analysis of Russian Twitter users and tweets, and expect to report on it separately in the future.) Together they comprise 70% of the total network, and all follow the model of the pioneering platform, LiveJournal, with platform-specific 'friends,' communities, groups, and file sharing options.²⁶ While not strictly 'walled gardens,' these hybrid platforms strongly promote links within platforms rather than across them.

²⁵ Yandex Blog Index http://blogs.yandex.ru/top/

²³ Miller McPherson, Lynn Smith-Lovin, and James M. Cook, "Birds of a Feather: Homophily in Social Networks," *Annual Review of Sociology* 27 (2001): 415-445.

²⁴ David O. Sears and Jonathan L. Freedman, "Selective exposure to information," *Public Opinion Quarterly* 31 (1967): 194-213; See also D. Frey, "Recent research on selective exposure to information," in *Advances in Experimental Social Psychology*, Vol. 19, ed. L. Berkowitz, (New York: Academic Press, 1986); as well as S.H. Chaffee and Y. Miyo, "Selective exposure and the reinforcement hypothesis: An intergenerational panel study of the 1980 presidential campaign," *Communication Research* 10 (1983): 3-36.

²⁶ Comscore, 2009, and Yandex, 2009: Monthly audience numbers also reflect Russia's unique blend of social networking and blogging, as the list of top social media sites in Russia contains both social networking and blogging platforms. The social networking service Vkontakte, modeled on Facebook, is by far the most popular, attracting almost half of Russia's Internet users. Mail.ru offers social networking and blogging as separate but interconnected services, and while separately their audience numbers are low, when combined, the audience of both those services makes up roughly one third of Russia's monthly Internet users. LiveJournal is next, attracting more than a quarter of Russia's Internet users, followed by the social networking site Odnoklassniki, modeled on Classmates, with almost a quarter of the users.

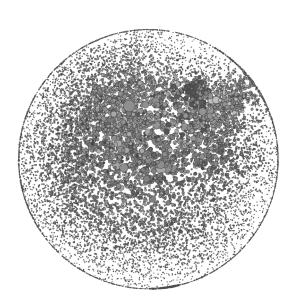


Figure 4: Position and prominence of blogs on the blogosphere map.

As a result of these differences, the macro structure of the Russian blogosphere features a network divided into largely separate camps, each based upon a large SNS hybrid, with strong internal and weak external links. However, activity within these separate hybrids was not equal. Mirroring Yandex findings that LiveJournal users are more active than those on other platforms, we found that LiveJournal bloggers were far more active in linking to news and other online content. ²⁷ Because our interest was in locating active public discourse, as opposed to the more purely social communications so evident within the Russian platforms, we focused our analysis on the links and citations within blog posts, in order to better identify the core of bloggers engaged in public affairs-relevant discourse and to find the core of a wider link economy transcending platform walls. This focus on the 'active link economy' generated a map that isolated the 'Discussion Core' for politics, culture, public affairs, and other socially salient topics – including not only Live Journal, but, in principle, all relevant blogs from across the RuNet ecosystem, while excluding peripheral, platform-specific 'sociability' clusters. In practice however, the vast majority of blogs in the Discussion Core turned out to be hosted on LiveJournal.

Using social network analysis we identified the most connected blogs, comprising the core of the network. The 17,000 most widely cited bloggers were selected for further analysis, applying 'attentive clustering' to find bloggers with similar citation patterns. In order to find clear large-scale patterns in citation preferences, a threshold was applied to the blogs on the map, excluding any that did not link to at least 10 of the 4,000 most widely cited targets. This removed less connected blogs and those with link histories not suitable to clustering and comparison. The remaining network of 11,792 blogs, representing the structural and conversational core of the Russian blogosphere, which we call the 'Discussion Core,' were mapped and clustered to create visualizations, partition the network into groups of similar bloggers, and compare bloggers and discourse across these partitions using both human and computational content analysis.

In Figure 4, each dot represents a blog. **The size of the dot** represents the number of other blogs that link to it, an indication of its prominence and popularity. **The position of each dot** is a function of its links with its neighbors, based on who is linking to it. Only links within posts were used for this analysis, instead of static friends lists or blog rolls. The diagram is drawn

²⁷ Yandex, "Trends in the Russian Blogosphere," Spring 2009, http://download.yandex.ru/company/ya_ blogosphere_report_eng.pdf (accessed October 5, 2010).

with a Fruchterman-Rheingold 'physics model' algorithm, which models a general force trying to push all blogs away from each other, like a wind blowing them off the map, counteracted by an attractive force (like a spring or force of gravity) that pulls together any two blogs that are linked online. Blogs are thus drawn together by their direct links, but more importantly by the links among their shared neighbors. Thus, densely interlinked network neighborhoods emerge from large groups of blogs. Those that share a lot of common neighbors will be close together in the map, even when they do not link directly to one another. In the Russian Discussion Core, the eclectic linking behavior and wide-ranging interests of Russian bloggers leads to a network with less distinct individual neighborhoods, such as typically arise around particular topics and interests in other blogospheres.

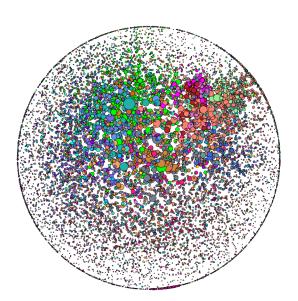


Figure 5: Attentive clusters on the blogosphere map.

The color of each dot on the map is determined through a different process, by analyzing links to all online content. A large proportion of the links from blogs are not to other blogs, but to online news sources, organizations, businesses, and various other Internet resources. The color of each dot indicates the assignment of a blog to a particular attentive cluster, which is a group of blogs that link to similar online resources. Attentive cluster analysis looks at the full range of online resources linked to by blogs, and groups each blog with others that share a similar linking profile. In blogs, linking to another online resource represents a hard measure of the blogger's attention and serves as the basis for identifying attentive similarities through statistical correlations in linking patterns. These are calculated by constructing a bipartite graph of blogs to link target Web sites, and clustering it using hierarchical agglomerative methods. Network neighborhoods and attentive clusters are usually highly correlated and therefore generally overlap a great deal in network maps. However, they represent two different things: the first is the direct linking among bloggers, while the second represents what bloggers are linking to in the Internet at large.

The attentive clusters then become the foundation for a number of follow-on analyses that use computational methods to look at the relative frequency of text and links across the segmented network, as well as qualitative methods applied to samples of blogs from the various clusters. This combination of computer text and metadata analysis with human content analysis is used to describe and label the attentive clusters, determine the basic characteristics of bloggers within each cluster, and uncover topics preferred by different parts of the network. Given the importance of the clustering to the rest of the analysis, it is important to strongly emphasize that the clusters do not represent logical categories, but rather, are simply exclusive sets of blogs which share statistically similar patterns of citations. These patterns often arise from intuitively grasped in-

terests, ideologies, preferences, and affiliations that exist among bloggers, and thus cluster labels often appear to be categorical ones, such as 'Liberal' and 'Conservative' in the U.S. network. But a Liberal blogger might appear in the Conservative cluster if they very frequently cite conservative media. Though a small minority, such 'watchdog' bloggers are quite normal in politically oriented blog networks. Also, bloggers often have rich and varied interests, and write about a wide range of topics. We have found that this is particularly true of Russian bloggers. However, this method assigns them to one cluster only, even though some members of a cluster will share a lot of characteristics of others in different clusters. The clustering approach is one which makes large, statistically derived generalizations in order to identify large-scale tendencies and regularities within extremely complex online discourse networks. But assignment to a cluster labeled 'Nationalist,' for instance, does not necessarily mean that a blogger is a nationalist, but that their pattern of linking, over time, resembles those of bloggers who tend to link to nationalistic online content and sources.

Computer Text Analysis:

In order to better understand the dominant themes in each cluster, and supplement our human content analysis, we generated relative word frequencies across the clusters. Using standardized residuals, which controlled for differences in size and total output across all clusters, we found the words which occurred with disproportionate frequency in each cluster. For instance, bloggers in the 'Nationalist' cluster were more likely than others to use the words 'country,' 'USSR,' and 'collaborators' than other bloggers. Bloggers in the 'Democratic Opposition' cluster are more likely to use the words 'facts,' 'court,' and 'solidarity.'

Human Blog Coding:

From this larger set of blogs, a random sample of 1,200 blogs from across the map were coded using an online tool created for this purpose. Nine native Russian speakers read blogs and coded them according to a standard script to determine basic demographic information. Outlinks (i.e., sources linked to by bloggers, including Web sites and highly-linked blogs) were also coded for type, location, and content. A majority of the coders are based in Russia, two in Ukraine, and two in the U.S. Inter-coder reliability was established using Krippendorf's Alpha, generally considered the highest standard for determining reliability. All questions on both the outlinks and basic scripts received high reliability scores, with Krippendorf's Alpha over .74 for all answers. Coders also provided qualitative descriptions of bloggers and how they discuss different issues, which are also used in the analysis.

We layer together all the data gathered from the above methods to profile the different attentive clusters. The last step is to affix a descriptive label to each cluster.

The Discussion Core is divided into four major zones: 1) Politics and Public Discourse, 2) Regional/Expatriate, 3) Culture, and 4) Instrumental. These four zones contain a total of 24 major clusters. In this paper we concentrate our analysis and attention primarily on the six clusters that comprise the Politics and Public Discourse zone, which contains the clusters that are the most 'news-attentive,' linking frequently to news sources. As is typical in other blogospheres, these news-attentive clusters include the vast majority of politically-oriented bloggers, as well as blogs that are toconcerned with social and political activism. It also includes those that are affiliated with offline political groups and social movements in Russia. Descriptions of the largest remaining clusters (those not focused on Russian politics and current events) are available in Appendix A.

Discussion Core Zones and Clusters

Politics and Public Discourse Zone

Internationally-linking Public Discourse Russian Media-focused Public Discourse Nationalists Business, Economics, and Finance Social and Environmental Activism Democratic Opposition

Culture Zone

Movies/Pop Culture Female/Hobbies International - Cosmopolitans International - Visual Art/Diaspora International - Music/Diaspora Russian Literature Russian Personal, Culture, Hobbies Russian Women/Sociability

Regional Zone

Ukraine Belarus Armenia Israel

Instrumental Zone

SEO/Spam Instrumental A Instrumental B Instrumental D Instrumental E

3.1 The Structure of the Russian Blogosphere

Overview:

The Discussion Core of the Russian language blogosphere consists of four major network formations: Politics and Public Discourse (the news-attentive clusters), Regional/Expatriate, Culture, and 'Instrumental.' This paper focuses on the Politics and Public Discourse section of the map, with some discussion of clusters from other sections of the map with political relevance. The Regional/Expatriate group includes clusters of bloggers from the CIS and those with substantial Russian-speaking populations, including Ukraine, Belarus, Armenia, and Israel. In addition to their country-specific clusters, Ukrainian and Israeli bloggers are found in smaller numbers in a range of clusters found across the map. The Culture region, found roughly in the center of the Discussion Core, includes clusters of bloggers around movies and pop culture, photography, literature, history, hobbies, and Russian cooking. The Instrumental section of the map consists of groups of bloggers who, instead of blogging purely about their own interests, appear to blog primarily on behalf of marketers or online advertisers, or with some external benefit as their motivating interest.

A Unique Space:

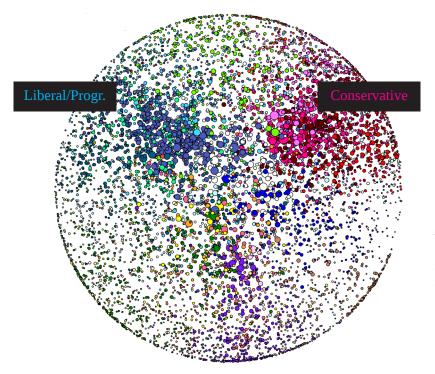
Compared with other blog networks we have analyzed, the Russian language blogosphere has unique characteristics. On the one hand, the larger Russian network, or 'link economy' is highly segmented, divided among dominant platforms which mainly (but not exclusively) focus activity and links within themselves. On the other hand, there is a highly active core of densely hyperlinked online discussion centered mainly within LiveJournal, but which draws a number of bloggers from other platforms as well as (typically high-profile) bloggers with custom-registered domain names. Within this central core, Russian bloggers appear to be less isolated within silos (or 'echo chambers') of like-minded bloggers than is typical within some other blogospheres that we have studied. In the U.S. and Persian blogospheres there are clearly defined clusters of bloggers intensely focused on politics from a certain political perspective, and who link to ideologically friendly media as well as to bloggers of the same political persuasion. In the U.S. political blogosphere, for example, liberals and conservatives form distinct and separate clusters situated across from each other in the network. These politicized clusters each cite their own co-ideological news sources, and link to one another across the virtual aisle, even to engage in direct debate, much less than to their political confederates.²⁸

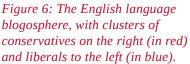
In Russia, the clusters are in general less structurally distinct from each other. At a network level, this seems to imply a less isolating political space than that found in the U.S., one substantially richer in cross-cutting debate. While the two largest Russian political clusters, Internationally-linking and Russian Media-focused Public Discourse), are not closely tied to a particular political party or affiliation, they are often critical of the government and those in power. Two other clusters, 'Democratic Opposition' (DemOppo) and 'Nationalists' (EthNat) are more specifically

²⁸ Hargittai, E., Gallo, J., & Kane, M. (2008), "Cross-Ideological Discussions Among Conservative and Liberal Bloggers." *Public Choice*. 134 (2009): 67-86.

tied to offline political movements, and one could argue, represent distinct threads of political thought in Russia. While these are not strictly analogous to Liberal and Conservative clusters in the U.S. blogosphere, one might expect the same kind of strong self-referential behavior if indeed Russian bloggers tended toward ideological isolation.

Two studies of ideological homophily among U.S. political bloggers and found similarly low amounts of cross-cutting discussion. Adamic and Glance found that only about 15% of all links





among top U.S. political bloggers crossed the aisle.²⁹ Hargittai, et al, found slightly lower levels, with about 9% of blogroll links, and an average of 14% of links in posts, across the political divide. Looking at links among DemOppo and EthNat bloggers in Russia, and excluding links to other Websites and blogs, we found that 25% of EthNat links are to DemOppo, and 30% of DemOppo links are to EthNat. The comparison to the U.S. blogosphere is limited by the fact that different methodologies were applied in these various studies, but at a glance it appears that Russian bloggers in these groups engage across the ideological divide about twice as often as U.S. bloggers.

Furthermore, while comparison is difficult because the U.S. studies did not track links to nonpolitical blogs, or political blogs not categorized as liberal or conservative, we suspect that lack of distinct 'echo chambers' in the Russian blogosphere is also related to high levels of linking from Russian bloggers to those that are neither their ideological friends nor their clear ideological enemies. For DemOppo bloggers, 29% of links are to other DemOppo bloggers, 13% are to

²⁹ Lada Adamic and Natalie Glance, "The Political Blogosphere and the 2004 U.S. Election: Divided They Blog" March, 2005, http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.59.9009&rep=rep1&type=p df (accessed October 12, 2010).

EthNat, and 58% are to other bloggers. For EthNat bloggers, 44% are to other EthNats, 14% to DemOppo, and 42% to other bloggers.

Taking into account the caveats mentioned above, we see enough evidence to hypothesize that the Russian political blogosphere is less polarized than the U.S. political blogosphere, both because there is less homophily among highly politicized Russians bloggers and because there are many active Russian bloggers who engage on political topics without 'choosing a team.' In fact, our qualitative view is that most Russian bloggers prefer to declare an independent intellectual posture, and eschew group affiliations. In contrast, most politically engaged U.S. bloggers are willing if not proud to declare affiliation with a recognized collective political identity.

4. Political Discourse and Mobilization in the Russian Blogosphere

We have isolated seven clusters that most frequently discuss Russian politics and current events, or demonstrate evidence of political and social mobilization in Russia. (Politics also appears to be an important topic in some of the regional clusters described in Appendix A, in particular Belarus and Ukraine, but our analysis in this paper is focused on political events and organization in Russia.) We found a wide spectrum of attitudes and opinions among bloggers across the seven Russian political clusters. Unlike politically-oriented bloggers in the U.S. or Iran, who nearly always fall clearly on one side or the other of an ideological divide, the majority of Russian bloggers appear to write from a more independent, non-aligned perspective. They discuss politics with less commitment to any defined collective position. That said, there are a great many bloggers who are associated or affiliated with offline political and social groups or movements, including both 'Democratic Opposition' and 'Nationalist' clusters. This section of bloggers also includes a cluster of bloggers that is focused on social and environmental activism as well as charity. We also identified a number of bloggers associated with pro-government youth groups. Interestingly, pro-government bloggers do not form a distinct cluster. Many are located in the Russia-Focused cluster, where pro-government views are not predominant, but a high concentration was also identified outside of the core political discussion zone, in the instrumental region. The six political clusters are individually profiled below, including illustrative coder descriptions of bloggers in the clusters as well as quantitative term frequency clouds to demonstrate issues discussed preferentially by each cluster.

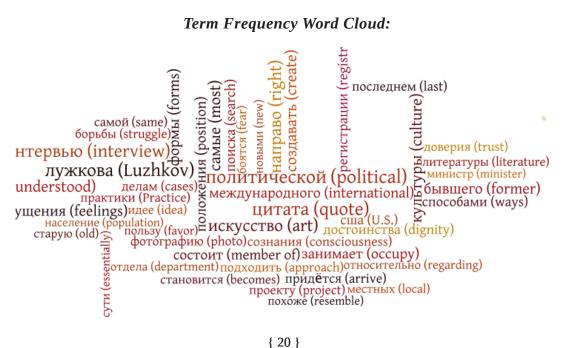
4.1 Internationally-linking Public Discourse

This is a large cluster of bloggers focused on politics. They write in Russian but frequently link to English-language news Web sites such as those for the New York Times, Washington Post, Wall Street Journal, The Guardian and the BBC. While based primarily in Russia (62.3%), there are slightly more U.S. and Israeli bloggers here than in other political clusters (about 8% total), as well as expatriates from a number of other countries. Bloggers in this group are slightly older than other clusters, with a median age of 37. Many bloggers in this group appear to be well-educated professionals, including professors, academics, translators/linguists, scientists and

journalists. Many appear to travel internationally frequently and also post pictures or discuss their trips. While politics and news are major issues of discussion for this cluster, they also write about history, culture, and literature, along with more everyday, diary type reflections. Several appear to have a more liberal/oppositional bent to their political opinions, but it is certainly not exclusively liberal or especially activist oriented.

Illustrative coder descriptions of blogs in this cluster:

- The blog belongs to a woman who works in the philosophy and religious studies department at Saint Petersburg University. The blog is a mix of private information and content related to work. She writes posts about world history and cultural studies, posts information about university life (e.q. university union opposition to new university codex) and expresses her opinion regarding religious news in Russia. She holds liberal political opinions and posts about the dialogue between Shevchuk and Putin as well as opposition protests.
- Russian-language LiveJournal blog of a D.Sc. in physical chemistry, originally from Lithuania and living in Haifa. The blog is mainly dedicated to science: the blogger extracts different popular science reports from the Internet, posts and discusses them. Also posts notes on other topics, such as general news and cooking.
- The blog belongs to a journalist and columnist who writes for various Russian magazines and online media about cultural studies, philosophy, literature and social studies. The articles cover a wide range of issues including western philosophers' biographies, Russian poets, western writers and reviews for books about cultural studies of Russia.
- This blog belongs to an Israeli political scientist. The major topic is political analysis of *Israeli politics as well as discussion around other more general topics, including nationalism,* the information society, and Soviet, Israeli and Jewish history. The blog also provides many links to various political discussions. The blogger is very critical and sarcastic and it looks like he is close to positions of the Israeli right wing.



4.2 Russian Media-focused Public Discourse

This is one of the largest clusters on the map, containing a wide range of discourse on politics, current events, technology, culture, and personal life. These bloggers are overwhelmingly based within Russia (81.3%) and link primarily to domestic news sources (Newsru.com, Lenta.ru, Ekho Moskvy and Gazeta.ru) This is in contrast to the Internationally-linking cluster above, which pays a high level of attention to English-language news sources. Major 'A-list' RuNet bloggers (such as drugoi, tema and radulova) are ranked highly in this cluster. This cluster is defined by the breadth of conversation – politics and current events mix in the discussion with philosophy, culture, religion, technology and personal life – as well as by the lack of an overwhelming political bent. While a majority of these bloggers are interested in politics, their views fall across the spectrum and vary depending on the topic. While there appears to be more of a liberal/oppositional tendency, it is in no way overwhelming, and all political perspectives are represented.

Illustrative coder descriptions of blogs in this cluster:

- The blog belongs to Alexander Muzafarov, a historical expert. The blog provides intellectual analysis of Russian history and tradition. Many posts are dedicated to the Russian church and Russian traditional art. The blogger writes about a fire in an art restoration center and posts pictures that he took there a year ago. In another post, he writes about his visit to a Russian cadet academy, where he gave a lecture about history and took cadets to Borodino.
- The blog of a political activist who posts information about opposition activity and police tyranny. The blogger reviews trials of the leaders and regular members of oppositional groups who were arrested during meetings. There are posts about Government errors e.g. Putin approved the pollution of Baikal, the worlds largest lake, etc.)
- The title of the blog means 'Housewife'. This is a Saint Petersburg woman who writes opinions on general social issues along with notes and observations about personal life. There are also some memories from the past including notes about the Siege of Leningrad, which the user seems to be related to in some way.



Term Frequency Word Cloud:

4.3 Nationalist

This cluster includes a range of Russian nationalist bloggers, ranging from extremists advocating violence against immigrants from the Caucasus and Central Asia, to more moderate nationalists that focus on Russian and Soviet history, the Russian Orthodox Church, and football. Bloggers often criticize the West and hail Stalin, but they also criticize the current Russian government. This cluster, along with the Democratic Opposition and Government Youth Group clusters, presents the online representation of offline political and social groups. The Movement Against Illegal Immigration (DPNI) is the primary socio-political movement linked to by this cluster.³⁰ In this cluster we see clear evidence of political mobilization around nationalist causes, including protests, nationalist marches, calls to support extremists who have been jailed, nationalist concerts and other offline action and organization. However, it also includes a number of bloggers who are history enthusiasts that are more moderate in their political views. This cluster has the highest concentration of male bloggers on the map, at 90%. It consists primarily of bloggers in Russia (74.6%) and Ukraine (11%).



Web site of the Movement Against Illegal Immigration (DPNI)

Illustrative coder descriptions of blogs in this cluster:

• Extremely aggressive blog of a writer who considers that people in Russia have become slaves of Jews and gays. He summons people to kill those who are not Russians and who have conquered his country.

³⁰ "The Rise and Rise of Russian Nationalism," *The Independent*, May 3, 2009, http://www.independent. co.uk/news/world/europe/the-rise-and-rise-of-russian-nationalism-1678130.html (accessed October 10, 2010); see also Fossato and Lloyd, "The Web that Failed."

- The blog belongs to a PhD in history, who is a supporter of Russian nationalism. Many of his posts are dedicated to political philosophy and justification for nationalism. He writes about his concerns in regard to the number of non-Russians in Moscow and shares his concerns about Islam. In other posts he discusses the positive role of Orthodox Church, the negative impact of West and some conspiracy theories about the West.
- The blog belongs to a Russian nationalist and a writer. He is also a founder of the political movement 'Motherland: Common Sense.' He describes in his blog the dangerous future found in Europe's decline and new separatists wars that will destroy the modern world. He is very critical toward the current Russian government and in particular the development of the Russian innovation zone Skolkovo. He says that Medvedev is a neoliberal and no one in the West will really help Russia contrary to what Medvedev has argued. According to the blogger, Russia has to focus on uniting and protecting the Russian people all over the world.
- The blog is primarily devoted to religious topics, and there are many posts with Eastern Orthodox icons, and links to materials related to these themes. The blogger discusses Slavic national and historical questions, and provides related illustrations.
- The blogger supports the current political course of Russia and is very critical, almost hostile, towards many things that originate from the West, particularly Europe and America.
- The blog is primarily dedicated to nostalgia for Soviet times and the glorification of the Soviet people. Some of the blog is dedicated to memories of World War II. As an example of the spirit of Soviet innovators the blogger tells the story of a person who asked Stalin for assistance to establish a new kolhoz (Soviet collective farm) before the end of the war, who later became the director of the most successful kolhoz in the USSR.
- Most of posts are news about people whom the blogger calls 'prisoners of consciousness,' but they seem to be extremists who were put in prison for extremist actions. The blogger writes a lot about how non-Russians destroy the country. He speaks about people who were beaten by migrants and publishes information about how to help them and posts pictures of prisoners who need help.



Term Frequency Word Cloud:

4.4 Democratic Opposition

This cluster consists of leading bloggers who are part of offline democratic opposition groups, including the *Solidarnost*' movement, an effort to bring several oppositional democratic parties together under the same umbrella. Key outlinks for this cluster include Web sites for Gary Kasparov, the former world chess champion and now a leader of the Russian opposition movement, Other Russia, grani.ru – a leading oppositional news site, the *Solidarnost*' political movement, and Radio Free Europe. In addition to discussions of the democratic and oppositional political platform, there is clear evidence of political mobilization within this cluster. A top outlink for this cluster is the LiveJournal blog of the 'Strategy 31' movement, a group created in defense of Article 31 of the Russian Constitution, which states that, "Citizens of the Russian Federation have the right to gather peacefully, without weapons, and to hold meetings, protests and demonstrations, marches and pickets." This quote is featured prominently at the top of the blog, and this group organizes protests on the 31st of each month. Key bloggers in this group include Ilya Yashin, a young political activist in the *Solidarnost*' movement, and Marina Litvinovich, a blogger and democratic activist.



Screen shot from Strategy 31 LiveJournal blog, calling for readers to join protests on the 31st of October at 6pm.

Illustrative coder descriptions of blogs in this cluster:

• This blog belongs to a political liberal activist and a member of the Democratic Union party. It is primarily an oppositional blog with a lot of political content. She posts videos with Shevchuk's appeal to Putin, a video appeal to the president by a mother who lost her child in a car accident that was caused by a government prosecutor, and an embarrassing video of the speaker of the Russian Duma. The blogger promotes various oppositional political actions and shares links for interviews with Russian democratic leaders. The blog also provides special instructions on "how to behave with the Russian police."

- This blog belongs to a political activist of the Russian liberal movement a former member of Civic Front who left the group following the process against Marina Litvinovich. Most of the content is political and oppositional in nature. The blogger posts photos from opposition demonstrations and also a lot of pictures with political jokes (e.g. promotion of an anti-government campaign by Russian Newsweek). Some of the posts are focused on internal conflicts in the Russian opposition and primarily Marina Litvinovich's case.
- The blog is devoted to critics of the Russian political system: authoritarian tandem Medvedev/Putin, lack of democracy and freedom of speech, falsification of history, conflict with Georgia, xenophobia and nationalism, and weakness of the opposition. The author's main idea is stated in the first post as a copy from United States Declaration of Independence: 'All men are created equal,' and 'whenever any Form of Government becomes destructive of these ends, it is the Right of the People to alter or to abolish it, and to institute new Government.'
- This is a well-known blog that belongs to Alexander Lebedev, one of the owners of the liberal Russian newspaper Novaya Gazeta. This blog has a few major topics. First it is used as a platform for providing comments in regard to Lebedev's own business and reposting his interviews/ press conferences for mass media. Second, Lebedev posts links from Russian media, primarily Novaya Gazeta, Kommersant, and Vedomosti; and shares his point of view on cases of corruption, persecution of journalist/bloggers and violation of human rights. The blog also raises some charity issues. To conclude, it's a liberal blog of a Russian news-maker that focuses on business and political issues, but is also careful in regard to some sensitive political topics that might involve the current Russian leadership.

Term Frequency Word Cloud:



4.5 Business, Economics, and Finance

This is a relatively well-defined cluster with a clear business and finance focus. The members of this cluster link heavily to business, economics, and finance oriented media, such as the Web sites for *Vedomosti, Kommersant, ForbesRussia*, and *Smart Money*. They also cite statistics, data, and research, and repost or read other bloggers who write about economics, finance, and IT-related news. The members of this cluster are overwhelmingly (87%) male. The top bloggers write about society, current events, politics, and economics. While many blogs are consciously neutral and objectives, where political views are apparent, they are mostly oppositional.

Illustrative coder descriptions of blogs in this cluster:

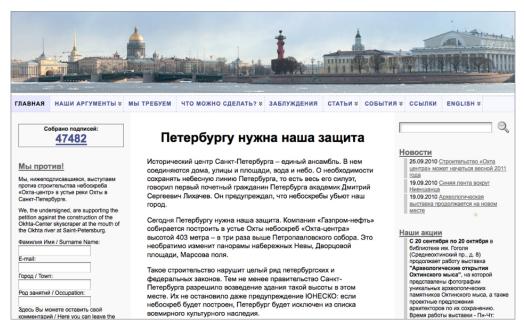
- A blog of a professional economist, who posts mostly news about economics, or political news connected with economics. He posts links to some useful information connected with tax legislation.
- The author mostly tries to inform his readers about world economics in a way that is understandable for the average reader. He also writes his thoughts about political events, but with no specific political position.
- Blog of a well-known social and business figure, an entrepreneur (currently runs a bank) and media personality. Writes on various themes, posts video and promotes his new books and projects.
- The blog is a mix of on one hand discussion about stock exchange and trade and on the other hand funny pictures, movies and entertaining content. It looks like the blogger spends a lot of time earning money through systems e.g. Forex. The user tends also to use a lot informal language and slang.
- Most blog posts are author commentaries on political and social issues. The blogger is a political journalist, his posts are very clear, witty and don't have strong political commitment. It is hard to say that he criticizes the present authorities, sometimes he just outlines facts, but everything is clear. He said that political journalists believed in Putin in the end of 90s, but now they are all disappointed in his politics.
- This is the personal blog of a financial market trader. Many posts are notes on various prices and the situation of the markets. The blogger is very much focused on his profession and on money and views many global news events foremost as economic factors (e.g. he remarks that his only concern after the Gaza flotilla incident and the ensuing instability is how it is going to play out on the market). Nevertheless, he does show some concern about the inequalities, corruption and abuse of power in Russia. The blogger makes clear that he isn't a big supporter of the current government.

Term Frequency Word Cloud:



4.6 Social and Environmental Activism

This cluster is oriented around social and environmental causes in Russia, including charities and preservation. According to our coder data, the gender make up of this cluster (66.7%F, 33.7%M) presents the highest proportion of women on the map, an inverse of the overall distribution of 67.3% men and 32.7% women. The cluster includes a number of bloggers from St. Petersburg who are actively seeking to stop the construction of the Gazprom tower, a proposed skyscraper that, if constructed, would be one of the tallest in Europe. Bloggers in this group, Bashne Nyet (or, No Tower) argue that the Gazprom tower would destroy the city's architectural integrity and could cause the city to lose its status as a UNESCO world heritage site. Bloggers also write more generally about issues related to preservation of the city's architecture, gardens and public spaces. There are also a number of anti-fascist/anti-extremist bloggers in this cluster. Top outlinks are primarily to bloggers who discuss social and environmental issues, including doctor-liza. livejournal.com, a well known doctor who establishes hospices in the region and was active in mobilizing volunteers during recent wildfires in Russia; ecoist.livejournal.com; the blog of the environmental organization Tsentr EKOM, and vveshka.livejournal.com, who writes often about St. Petersburg architecture and the bashne.net group. Top non-blog links include links to the Bashne.net site, charity.ru, and avtonom.org, a Web site titled 'Autonomous Action: The Organization of Liberal Communists,' which focuses on protests and activism, most recently on protests to stop the razing of the Khimki forest outside Moscow to make way for a new highway, a major environmental issue for a number of other organizations and protestors in Russia.



The Web site of bashne.net, which is attempting to stop construction of the Gasprom tower in St. Petersburg.

Illustrative coder descriptions of blogs in this cluster:

- A LiveJournal community of Saint Petersburg citizens who care about what is going on in their city. They publish information about different violations by authorities, private companies and famous people who destroy trees and architectural masterpieces for their own benefit. The blogger also uses the blog as a space for planning actions and protests.
- The blogger works for an online charity Web portal supported by the Russian Orthodox Church. In her blog she shares many stories about the elderly, children, and families that need help and donations due to illness or socio-economic situations. However, the blog also has many very private and personal posts about the blogger's children (she has 2 sons), traveling, personal photos, exhibitions that she had visited, and her new haircut. She also writes about cultural topics – art, movies, books, etc. To conclude, it's a semi-personal, semi-charity blog.
- This is a group blog written by activists from an environmental organization. It mostly contains information about the destruction of parks and gardens in Saint Petersburg because of decisions by municipal authorities. The bloggers also try to find volunteers to help clean gardens and plant trees.
- The blog of a politically active woman, who writes about different protest actions she participates in. She also reposts information about people who are sick and who needs money for operations. She also fights homophobia and nationalism and posts information about different protest events.

Term Frequency Word Cloud:



5. Outlinks and News Sources

Top outlinks for the Discussion Core, overall, are dominated by Web 2.0 sites including YouTube and Wikipedia. Here we focus specifically on top news-related and political outlinks from the bloggers in the Discussion Core. According to our data, Russian bloggers show a preference for Web native Russian news sites (lenta.ru (#1), gazeta.ru (#2)), Web sites of government-supported and independent news agencies (RIA Novosti (#3) and Interfax (#14)), and major Russian newspapers (*Kommersant* (#4) and *Vedomosti* (#7)). We also compare the news diet of bloggers as reflected in outlink preferences to Russian Internet users overall, based on a compilation of seven different rankings of the most popular Russian news sites. We see that bloggers demonstrate a slight preference for more independent, foreign, and even oppositional news sources than Russian Internet users overall. *Echo Moskvy* for instance is ranked 6th among bloggers and 20th among Internet users. Among bloggers, *Novaya Gazeta* is ranked 10th, Radio Free Europe (svobodanews.ru) is 17th, BBC News is 23rd and Grani.ru is 26th; none of these is ranked among the top 30 among Internet users.

RANK	SITE	NAME	ТҮРЕ
1	lenta.ru	Lenta.ru	Popular online news agency and news portal/ Web site
2	gazeta.ru	Gazeta.ru	Popular online news and analytical website
3	rian.ru	RIA Novosti	A major governmental news agency
4	kommersant.ru	Kommersant	Well known, relatively liberal (belongs to Alisher Usmanov who has strong ties to Kremlin) newspaper with a focus on business and politics
5	newsru.com	Newsru.com	Popular liberal news Web site that belongs to Gusinsky (affiliated with RTVi TV channel)
6	echo.msk.ru	Echo Moskvy	Popular liberal Moscow radio station (owned by Gazprom)
7	vedomosti.ru	Vedomosti	Respected business and economics newspaper
8	gzt.ru	Gzt.ru	Web site of newspaper 'Gazeta' that was closed few months ago. Now it is a news Web site only
9	Kp.ru	Komsomolskaya Pravda.	A website of a popular tabloid-style newspaper.
10	novayagazeta.ru	Novaya Gazeta.	Web site of a popular liberal newspaper. Belongs to Alexander Lebedev and Mikhail Gorbachev.
11	vesti.ru	Vesti	A website of a government-funded TV news channel
12	top.rbc.ru	Ros Business	Consulting, online news agency and news Web site
13	Vz.ru	Vzglayd	News portal that has some ties to the government
14	interfax.ru	Interfax	Independent news agency
15	Rg.ru	Rossiyskaya Gazeta	A government newspaper
16	news.mail.ru	News.mail.ru	News aggregator as a part of online services by the major Russian e-mail provider
17	svobodanews.ru	Svoboda	A Web site of U.Sfunded Radio Free Europe/Radio Liberty
18	izvestia.ru	Izvestia	A major Russian newspaper
19	mk.ru	Moskovskiy Komsomoletz	Web site of popular tabloid-style Moscow newspaper
20	slon.ru	Slon.Ru	Relatively new popular business portal that also includes many blogs and new media elements.
21	rosbalt.ru	Rosbalt	Online news agency, with a focus of Russian Northwest.
22	polit.ru	Polit.ru	Political news portal and news aggregator
23	bbc.co.uk	BBC	British Broadcasting Company Web site
24	chaskor.ru	Chastniy Korrespondent	Relatively new Web site that was created by new media expert Ivan Zasoursky. Contains a great deal of analytical content on a wide range of topics. It is generally considered very intellectual.
25	news.livejournal.com		A selection of best blog posts provided by SUP, which manages the major Russian blog platform LiveJournal.
26	grani.ru		Liberal oppositional news Web site that was affiliated with Boris Berezvoski.
27	fontanka.ru	Fontanka	City news portal with a focus on Saint Petersburg
28	regnum.ru	Regnum	Online new agency with a focus on regional news
29	snob.ru	Snob	A print and online magazine, also a social network
30	infox.ru	Infox	Online news portal

Figure 7: Top 30 News outlinks for Russian bloggers

5.2 YouTube and Politics:



Figure 8: Blogs that link to YouTube

YouTube is the most frequently linked to site for bloggers on our map, which is also true of our analysis of the U.S., Arabic and Persian blogospheres.³¹ YouTube's dominance remains despite the existence of a popular Russian video sharing site based in Russia, rutube.ru. We identified the most linked-to videos in the Russian blogosphere and reviewed the top 100 clips. Overall, the top 100 videos are a mix of entertainment, humor, and political content, and exhibit a mix of both top down commercial created content and bottom-up, user generated videos. Here we focus discussion on the top political videos in that set. A significant amount of political videos are focused on corruption and transparency; pushing back against abuse of power by elites, the government, and the police; and include direct appeals for assistance to the Kremlin. There are some clips related to environmental issues, including stopping the destruction of the Khimki forest outside Moscow, and several related to nationalist issues.

The most popular Russian political video is of a speech by Russian rock star and oppositional leader Yury Shevchuk at a concert in March 2010. He talks about his nostalgia for the rock of past and describes the failure of current Russian music. He describes modern Russian rock as pornography for the people who support the police regime. He argues that the real nature of rock is freedom, but that current rock is music for people who live according to the following formula: eat, drink, and have sex. Shevchuk also calls for the release of jailed former Yukos executive and Kremlin critic Mikhail Khodorkovsky, and tells the audience to take their fate in their own hands. Shevchuk also had a widely publicized debate with President Putin on television on the state of Russian democracy.

³¹ Kelly and Etling, 'Mapping Iran's Online Public;' Etling, Kelly, Faris and Palfrey, 'Mapping the Arabic Blogosphere.'

A series of video appeals by police Major Alexei Dymovsky are also frequently linked to and discussed. In these videos, Dymovsky appeals directly to then President Putin to stop rampant corruption among the police, and also appeals to his fellow officers to stop demanding bribes. Dymovsky decided to post his video appeals on YouTube after his questions were recorded but not aired during a TV call-in show with Putin; his call was traced and his superiors informed. As a result of the videos, he was fired from his job, arrested, and charged with abuse of office and fraud under a law governing state secrets. These types of direct appeals to the Kremlin now appear more often on YouTube, including one in our set complaining of corruption and abuse of power by a local prosecutor.³²

There are a number of other videos related to corruption in the banking and finance industry. These including one by well known anti-corruption blogger, Alexei Navalny, who uses his position as a share holder in large companies to expose corrupt practices. Several videos are related to Dmitrii Baranovskii, the leader of the Russian transparency organization Justice, whose investigations led to the removal and arrest of the director of a state controlled bank. However, Baranovskii was himself later investigated and charged, and now sits in jail (he blogs through his lawyer at http://dm-b.livejournal.com/.) Many Russians see this as typical of Russian corruption investigations, in which even if corrupt officials are found guilty, the powerful find ways to punish their critics and intimate others from conducting similar investigations.

Finally, there is one highly ranked English video, and a number of much less frequently linked to videos, that are critical of British Petroleum and clean up efforts after the 2010 oil spill in the Gulf of Mexico.

#	URL	TITLE			
1	http://www.youtube.com/watch?v=QJRb6NtpcS0	Amateur Video Of Gulf Oil Slick – Worse Than BP Admits			
2	http://www.youtube.com/watch?v=WrpoFzBbyMU	Shevchuk's speech. MOD			
3	http://www.youtube.com/watch?v=HgxDXNzMbNl	How the Baransky case unfolded			
4	http://www.youtube.com/watch?v=7hFivbgIEqk	Home (Russian version)			
5	http://www.youtube.com/watch?v=982iwZR-gGA	Dmitry Roaldovich Baranovsky on Corruption forFM (Citi.FM)			
6	http://www.youtube.com/watch?v=2G3KbBfpg24	Police officer's video address to Putin (#1)			
7	http://www.youtube.com/watch?v=TqQFtJMBPbc	Routing the Khimok administration			
8	http://www.youtube.com/watch?v=Mc1c0CweUVk	0			
9	http://www.youtube.com/watch?v=2dJkMLxvulw	Police officer's video address to Putin (#2)			
10	http://www.youtube.com/watch?v=5R-Bfm288vc	How they saw at VTB (bank)			
11	http://www.youtube.com/watch?v=GuoLx4Uob7A	The best work for a real patriot			
12	http://www.youtube.com/watch?v=PrkK_r0fh-I	The Tikhonov-Khasis case. Commentary by I. Mironova.			
13	http://www.youtube.com/watch?v=JW0AnZLSCcg				
		Affairs officials			
14	http://www.youtube.com/watch?v=fIhzedSV9GU	Message to the Russian President from prosecutor			
	• •	Gregory Chekalin			
15	http://www.youtube.com/watch?v=p03wfPi3xgY	Human Shield			
16	http://www.youtube.com/watch?v=bJdmaO-LPPc	Exclusive! Password '' (Luzhkov);			
17	http://www.youtube.com/watch?v=vOI6OCHerUI	4 volunteers almost burned down a forest near Vyksa			
18	http://www.youtube.com/watch?v=H8xooguEUm8	Trushkin and Svetlichnaya against clearing the Bitsevky forest			
19	http://www.youtube.com/watch?v=BMiLKQGhNvv				
20	http://www.youtube.com/watch?v=DG8moeSN1lc	Yevseyev's message to the President			
21	http://www.youtube.com/watch?v=M8Ay1X36GII	Pedestrian forces a traffic cop to follow road laws			
22	http://www.youtube.com/watch?v=RIFirwSY9pY	Novodroskaya's Russo-phobia. All new.			
Figure 9: A selection of highly linked to Russian political videos					

Figure 9: A selection of highly linked-to Russian political videos

³² Clifford J. Levy, 'Videos Rouse Russian Anger Towards the Police'

6. Conclusion

In this paper we take a first, incremental step towards understanding the role of the Russian political blogosphere in contentious politics in Russia. We have identified the areas of the Russian language blogosphere where discussion of politics, public discourse, and social and political mobilization most frequently occur. There are indications from this research that there is less polarization in the political clusters of the Russian blogosphere than in others we have investigated, in particular the U.S. political blogosphere. For those concerned with the potential for political polarization in online discussion, the lack of clearly defined political echo chambers may be a positive sign and a reflection of the ways in which patterns of online discourse depend greatly on the pre-existing political characteristics of particular societies. However, in Russia, where there are also concerns over political domination by one party, the absence of a strong multi-polar political structure may also be seen as cause for unease, suggesting that in semi-open societies, the topic of polarization and echo chambers may be more complex and multi-dimensional than in open democracies. The absence of a strong unified opposition to the governing party appears to be reflected in the Russian blogosphere. We also find no exclusively pro-government cluster in our analysis.

Although focused on the part of the Russian blogosphere where discussion of politics and public affairs is most active, as opposed to the extended network as a whole, our findings indicate that the Russian blogosphere meets many of the prerequisites of a networked public sphere, as defined by Benkler, although with some important caveats.

1) The Russian blogosphere is a space that appears to be largely free of government control, although we are not able to confirm or deny the existence of subtle controls over Internet speech. There are pro-government elements such as pro-Kremlin youth groups and bloggers who represent the government's point of view. However, they are not large in numbers and are not central nodes in any of the political or social clusters that we investigated;

2) This is a predominantly peer-produced space, which draws more often on Web 2.0 resources such as YouTube and Wikipedia than on more tradition news organizations, but it is also deeply enmeshed in the broader Russian media ecology. Politically oriented bloggers link preferentially to a range of independent sources of news and information, more than to government news sources, although certainly not exclusively;

3) Many of the most politically attuned bloggers use the platform to serve as a watchdog on elites and the government. In particular, citation of YouTube videos demonstratea frequent focus on corruption and abuse of power;

4) The Russian blogosphere is a space that Russians use to communicate about matters they understand to be of public concern and that potentially require collective action or recognition. It seems, based on our research, that portions of the Russian blogosphere are used not only to discuss politics and criticize the government, but also to mobilize political and social action. If this

trend continues and increases challenges to the status quo, we might expect to see greater government involvement and contestation in the networked public sphere. Currently, Nashi and other pro-government elements are engaging in the space, although their presence is not widespread or particularly influential. Some seem to assume that it is only a matter of time before the government exerts its considerable power in an effort to control the Internet, to limit political action and criticism of the government. This may be more likely to occur during sensitive political times, such as around elections. At least for now, though, perhaps due to the Internet's still limited reach in Russia, or the unnecessarily high political or economic costs of limiting speech online, the political blogosphere appears to remain a free and open space for Russians of all political stripes to discuss politics, criticize or support government, fight corrupt practices and officials, and to mobilize others around political and social causes.

Future Research Questions:

There are a multitude of further questions not addressed in this research. The offline effect of the political speech and action we see in the Russian political blogosphere is hard to gauge, but should be a focus of future research.

A better understanding of the agenda setting and framing functions of the blogosphere is needed. Are issues that the blogosphere nominates as politically salient able to make it into the traditional media, particularly TV? When those issues do make it into the traditional media, does the blogosphere's frame get adopted, or is it changed to suit the government's agenda? Alternatively, has nothing changed; does the blogosphere frequently adopt the agenda and the framing of TV?

Another important question is how effectively social movements are using digital tools to achieve their goals. The influence of online speech and the use of the medium by social movements could be investigated through deeper automated and human content analysis. How successful are social movements in Russia, such as the driver's movement, in getting their primary issues into the broader media agenda, and on their terms?

As a recent paper released by the U.S. Institute of Peace demonstrates, there are far more questions about the impact of the Internet on collective action than there are answers.³³ However, in this paper we have tested some potentially useful methods for collecting and analyzing the data required to begin to answer some of these important questions. Furthermore, by conducting analysis of an online space outside the English speaking Internet, where many of the influential normative theories of the Internet's impact have been formulated, we hope to help move the discussion in a direction that substantively grapples with the importance of understanding the role of Internet-based communications within the larger social and political contexts in which they are employed. In short, 'cyberspace' needs to be analyzed as a growing component of offline sociopolitical systems, not as a separate, abstracted sphere of discourse.

³³ Sean Aday, Henry Farrell, Marc Lynch, John Sides, John Kelly, and Ethan Zuckerman, "Blogs and Bullets: New media in contentious politics," Peaceworks No. 65, U.S. Institute of Peace, 2010, http://www.usip.org/files/resources/pw65.pdf (accessed October 12, 2010).

Appendix A: Additional Major Clusters on the Discussion Core Map

As we wrote in the paper, 24 major clusters emerged in the Discussion Core. These 24 individual clusters can be sorted into four major zones: 1) Politics and Public Discourse, 2) Regional/ Expatriate, 3) Culture, and 4) Instrumental. In the body of the paper, we isolated six politically oriented clusters for discussion. In this appendix, we provide an overview of the major remaining blogs clusters.

1. CULTURE

Totaling close to 6000 blogs, the Culture zone represents almost half of the Discussion Core. This is a diverse group, united by an emphasis on culture over politics. The clusters in this group include three with a large international or diaspora contingent – 'Cosmopolitan;' 'Visual Arts/ Diaspora,' and 'Music/Diaspora.' For these three clusters, Russian bloggers make up less than 55% of the coded blogs. In contrast, there are three clusters that have a definite domestic Russian orientation – 'Russian Literature;' 'Russian Personal, Culture, Hobbies,' and 'Russian Women/ Sociability.' – 70% to 90% of the bloggers we coded in these clusters were Russia based. There are two more clusters, 'Movies/Pop Culture' and 'Female/Hobbies,' whose members are 62% Russian – close to the Discussion Core average.

1.1 Movies / Pop Culture (794 blogs)

The bloggers in this cluster are a diverse and relatively tech-savvy group, connected by an interest in movies, photography and popular culture, among other things. Their blogs are a personal/public hybrid, combining descriptions of daily lives with movie and video game reviews. Vimeo, Flickr, Picasaweb, and Twitter are the top outlinks for this cluster.

Coder Descriptions:

Most of the recent posts on this blog are about the Venice Film Festival and about the blogger's travels to Venice. Notes on the actors (e.g., she was overwhelmed by a handshake with Tarantino) and films watched during the Festival. Photos and notes from walks around Venice; notes on guidebooks and air travel. The blogger also writes reviews for a Russian movie site, her trip to Venice was most likely work-related.

The blog of a 32 year old movie editor who posts mostly music he likes, music videos and movie clips he has edited. He quit smoking less than a year ago and he is proud of it, so some of his posts are against tobacco and easy drugs. He is lonely and not very pleased with his life, so from time to time he declares that he needs to change something.

The blog of a young woman from Kaliningrad (western part of Russia), a professional photographer, who posts photos and pictures and gives brief comments, e.g. travel to the USA, pedestrians in Paris, Kaunas city views, colleague portraits, humorous pictures, etc. The blog seems to be place where a creative author presents her works to friends (there is a link to her flickr blog on the main page). Russian-language LiveJournal blog of a woman from Latvia. There are notes on everyday life and family, sometimes illustrated, and reviews of movies, books, music and news she is acquainted with. Also, there are notes on Latvian society and politics, travel destinations, restaurants and so on.

1.2 Female / Hobbies (344 blogs)

This is one of the few clusters where women outnumber men among the blogs we coded – 54% Female to 46% Male. This cluster also has a significant overlap with the LiveInternet blogging platform, and LiveInternet is one of the chief outlinks, along with the file sharing site Radical.ru. The bloggers discuss a wide range of interests, from hobbies to esoteric science to family issues.

Coder Descriptions:

A mother of two kids writes about her sons, and their growth. She is very religious and thinks a lot what it means to be a real Christian. She posts many pictures of children's clothes and photos of her children. She also posts a lot of music from old Soviet cartoons.

A diary like blog of a woman who released a book based on her blog. She writes about her family, kids, and everyday issues. She loves to cook and shares new spices she tries.

LiveJournal blog of a Moscow man who posts some illustrated notes on his everyday life, travel, and time spent with friends. Also there are many 'general entertainment' videos and other pop culture content. The author is also interested in things like technology and photography.

An esoteric and mystic blog that covers topics such as Buddhism, transformation of Earth in 2012, contacts with aliens, psychology, and self-development. It's primarily includes interviews with a teacher, YouTube movies with mystic claims, articles about training and history of Buddhism. One of the articles on the blog says that Obama will soon have to tell the truth about aliens.

The blog belongs to a young woman from Saint Petersburg. She is a figure skater and a big fan of the sport. Her blog includes a very detailed report and a lot of pictures from international competitions. She is also a big fan of dance and the blog has a lot of dance video clips. The blogger also posts a lot of photos and short stories about nature, as well as a lot of songs.

1.3 International - Cosmopolitans (780 blogs)

This is a large cluster of bloggers who link frequently to Web 2.0 sites, such as Wikipedia (English and Russian), YouTube, Google, Flickr and Twitter. Other top links are the Internet Movie Database (IMDB) and habrahabr.ru (a Web-portal focused on the IT industry, online marketing and online journalism), microsoft.com, code.google.com, torrents.ru, and ozon.ru (Russian version of Amazon.com). The bloggers in this cluster are tech savvy professionals, journalists, photographers and public figures, often affiliated with the IT industry. Their topics of discussion are diverse, favoring the arts and social life, especially photography, travel, and film, over politics. According to our data, this cluster is predominantly (74%) male. This cluster has one of the lowest proportions of bloggers based in Russia (56%), and one of the highest proportions of bloggers based in the US (4%).

Coder Descriptions:

The blogger is a Russian permanently living in Thailand and traveling around neighboring countries. There are no hints of what he does to earn his living though he seems rather well-off. The purpose of the blog appears to describe the culture and customs of the countries the blogger visits to his Russian friends and readers.

It's a blog of a Moscow based photographer. He uses the blog to share a lot of his photography. He also discusses new photo technology and reviews new photo editing software, as well as promote his seminars about photo editing. He also discusses more general topics about computer software and programming.

LiveJournal blog of a woman who used to work as a high society journalist for several prominent "glossy" mass media. Blog contains notes on her personal life mixed with issues related to her profession, e.g. perfumer, travel, arts, exhibits, books, and TV. The posts are usually relatively short.

LiveJournal blog of a relatively popular radio and magazine music and pop culture journalist. The blog contains content quite similar to what the blogger does professionally – reviews of movies and music albums, articles on various cultural topics. Also there are some notes on personal life presented in a manner similar to that of a magazine. The blog (along with the author's Web site) have an overall cheerful and ironic mood.

A lawyer from Michigan, describes in her blog her life in America. Most of her blog is about everyday life and traveling. She posts a log of photos from natural reserves with wild animals and also shares some casual stories about her family and husband. The blog also includes posts about favorite books and movies.

1.4 Visual Arts/ Diaspora (505 blogs)

This cluster is clearly image focused, as its primary outlinks are YouTube and images on the media hosting Web site Imageshack.us. This cluster has a large international/Diaspora contingent – only 47% of the blogs we coded were based in Russia. The rest were primarily blogging from Ukraine, Belarus, Israel, the US, and other countries. The bloggers are usually 'creatives' – photographers, writers, professors, philosophers, and animators.

Coder Descriptions:

Since the author of the blog is an animation artist, who makes cartoons, he mostly writes about his job and cartoons. He is an experienced artist, who was working with the famous cartoon artist Andrei Petrov. It is clear that animation is the most important thing for the blogger, so he uses any chance to share his experience offline and online.

Most posts are photos of New York, Brooklyn, and other places where the blogger goes. He calls it "The place" in photos and poems. He visited South America recently and posts a lot of pictures.

The blog covers primarily three topics: mobile communication, music, and traveling. The blogger write posts about gadgets, information technologies, the Internet and mobile phone security. He also posts a lot of video clips with Russian music. But probably the major topic of the blog is travel around Russia with small stories and pictures from various places in Russia. To conclude, it's a private work with a visual and textual content about leisure, traveling, music, and hobbies (it's not clear if IT or IT journalism is the blogger's profession).

1.5 Music/Diaspora (417 blogs)

This cluster appears to consist of bloggers who are musicians or music fans. The bloggers in this cluster link disproportionately to music, photo, and video sharing sites, as well as social networking sites such as myspace.com, vkontakte.ru, ifolder.ru, lastfm.ru, discogs.com, torrents.ru, vimeo.com, and rapidshare.com. Music, photography, and social media are key topics of discussion. Similarly to the 'International/ Cosmopolitan' cluster, only around 54% of these bloggers are based in Russia.

Coder Descriptions:

The blog belongs to Russian opera singer who lives in France. It is part cultural, part political, and part personal blog. She expresses her support of Israel and pro-Israeli demonstrations in Europe, talks about anti-semitism in Sweden, shares a list of killed journalists in Putin's Russia and discusses European politics. She also shares her favorite Russian poetry, songs, classical music, singers and performers. The last pillar of the blog is personal thoughts about relationships, friends, life, God, etc.

This is a personal blog of a man from Moscow, who is currently living in Boston, US and attending Berklee college of Music. His primary musical interest is vocals, especially in the styles of rhythm and blues and rock. In the last posts, the blogger mostly writes in detail about his studies that consume the better part of his time and references musical resources. As a hobby, the blogger enjoys photography and often posts pictures from his everyday life. Apart from his studies, which he finds difficult, but rewarding, the blogger does not voice an opinion on much and avoids writing on broader topics.

LiveJournal blog of a poet, writer and musician, who participates in Russian "post punk" rock group "Region 77" and is interested in Balkan conflicts. Publishes notes, sometimes illustrated, about his areas of interest: such as his artworks, music he likes, war history, politics, culture (literature, photography, cinema).

A blog of Moscow rapper, who posts his texts and posters about his shows as well as reviews of his concerts. He also writes a lot about his musician friends, and how he plays music with them.

1.6 Russian Literature (198 blogs)

This cluster is united by an interest in writing and literature. The main outlinks are to literary portals, databases, and collections of writers, magazines, journals, and museums. The bloggers in this cluster are mostly authors and poets. A large majority (89.5%) of the blogs we coded in this cluster are based in Russia, and almost 50% of those (47.4%) were Moscow-based. This cluster also stands out because a significant majority of the bloggers we read (79%) reveal their name, far above the 28% cross cluster average.

Coder Descriptions:

A blog of a poet and a writer who works for several journals and Web sites as a journalist and analyst. He posts a lot of poems (his own and some by other poets) he writes about new journals, his articles, and scandals that are common in the Moscow literary world. He also translates a lot of world poetry and writes about peculiarities of translation, comparing some original poems with the translations

Russian-language LiveJournal blog of a poet and literary activist from Ufa. Writes mostly notes on cultural and political topics around his home, Bashkortostan, and sometimes other parts of Russia. There are posts about modern Bashkir songs and literature, about travels around Baskortostan and Tatarstan, and meeting with people.

It's a modern culture-art blog by a modern poet. Most of the posts include poetry and cartoons that were created by the blogger, as well as video clips from various fringe theater, poetry, and musical festivals. Some of the poems include sarcastic political messages. The blogger also protests against prosecution of the "Forbidden art" exhibition in Moscow.

The author is a very popular lesbian net writer and poetess, posting in her blog her creative works. The blog seems to be a place for the virtual community of Net readers, where they can read her works, write their opinions and discuss her works, and find news and announcement in the field of Internet literature.

LiveJournal blog of a writer who publishes books with mostly contemporary war stories, mainly Chechnya-related. Born in Krasnodar, now living in St. Petersburg, served in Russian Army in Chechnya. Also posts information on the literary community, which he appears to be a part of. The blog consists mostly of large or small quotations, and excerpts of his texts and announcements regarding his work.

1.7 Russian - Personal, Culture and Hobbies (1233 blogs)

This is the second largest cluster on the Discussion Core map – second only to the Russian Media-focused Public Discourse – and appears to be a center of personal, social, and cultural conversation. The cluster has a relatively average gender split – 59% Male and 41% Female, based primarily (70%) in Russia. The outlinks are mostly to other LiveJournal blogs, and the key Web sites are to social media and Web 2.0 sites – fotki, Yandex, zhurnal.lib.ru and lurkmore.ru.

According to qualitative assessments by coders, the main topics of discussion are personal, revolving around 'everyday issues' and personal development, growth, stories, and personal thoughts. Other primary topics include tourism and travel, culture, and the arts (photography, literature and books, music, poetry, and movies) humor, history, family and children, professional development, and jobs.

Coder Descriptions:

A Moscow programmer who writes about his everyday life – his job, his family, and his cat. He occasionally posts some economic or political news and comments on them.

The author is a professional gestalt-psychologist, using his blog as a personal dairy, place for his reflection and discussion with his friends on issues of psychology, meaning of human life, and literature, as well as posts on his personal experience, music video, photography, humor, etc.

LiveJournal blog of a St. Petersburg woman working as copywriter. Blog contains notes on personal life and opinions on author's observations as well as reports from having time with friends along with some pictures the author likes, including hand-drawn portraits of herself made by her friends. The woman, as she states, is fond of copywriting and may sometimes post fantasy-like and other texts she may compose. At times she declares bi-sexuality and often refers to herself using masculine gender.

The owner of the blog is a housewife, an active social networker, and moderator of several LiveJournal societies. All her activity is concentrated around women's issues: love, beauty, family, children, relationships, diet, shopping, marriage, books, pets, charity. It seems that, busy bringing up her children, she finds an outlet in social networking.

The blog of a young man, a medical professional, chatting about his personal life: his vacation in Egypt, photos of his native city St Petersburg, best 200 books and 50 films, gadgets, music, and humor. The author seems to be typical representative of Russian middle-class (living in a city, with higher education, having a car, vacations abroad, certain cultural leisure activities).

The range of topics the blog covers is very wide as the author is interested in both climate change and psychology, political news and unusual and funny events. Most entries are quotes from different sources and a short summary from the author or his vision of the problem. There are quite a lot of poems that he writes himself about almost everything and publishes them in this blog.

Kharkov-based blogger, mostly posts random cute things found on the Internet, writes about her life, posts photos. The only "serious" recent post is about a new tax that they are allegedly planning to introduce in Ukraine – if they pass this law, those who gather and distribute information will be considered unregistered information agencies and taxed accordingly – and theoretically it concerns bloggers – and this law might be passed just in case, so that it's legal to send tax inspectors to silence people who bother the authorities too much.

A blog of a young man, who lives with his boyfriend and writes a lot about problems of homophobia in Russia, though he underlines that he doesn't ascribe to any particular ideology: nor religion nor gender. He posts funny pictures from the pride parade in Russia. He reads a lot and shares his opinion on books. He argues with the people who say that HIV is just a horror story that is created by pharmacological companies.

A little bit of everything: online poetry and humor, Siberia travel notes and photos, a note on a night spent watching striptease (didn't like it), a note on a new Russian movie about the gangs of the 1990s (liked it), a note on a new operating system developed by some Sibearian school kid (Bolgenos, later turned out to be a fake or something) and other technological innovations, a post on the best ways to listen to music online "What's the internet for? For entertainment, of course!", a nostalgic note on some old Soviet band that the blogger used to listen to when he was still in high school – and what they look and sound like now.

A lot of posts of this blog are about violence of Soviet soldiers during World War II. The blogger tries to express his opinion through poems. He writes a lot about unknown factors of Russia history that are hidden by both the Soviet and modern Russian governments.

1.8 Russian Women/Sociability (853 blogs)

This cluster consists primarily of Russian women – according to our coding data, it is 70% Female and 75% Russian. The outlinks for this cluster are primarily tests, surveys and other Web site entertainment tools. The topics of discussion are general every day life, family, and hobbies – fantasy related themes appear popular.

Coder Descriptions:

The blogger is a student. She devotes a lot of time to her hobbies. The posts are rather personal, she expresses her feeling and anxieties, but she also uploads photos of her handmade accessories. In general the blog seems to be simply satisfying her need to write and express herself.

The blog belongs to woman from Moscow who likes to write poetry and short stories. She publishes her writing on her blog. She is also a fan of the fantasy genre, J.R.R. Tolkien and role play, and she write about some of the games on her blog. In addition to the publication of her writing, the blog is a personal diary, where the blogger shares short stories about her leisure, trips, and other common daily experiences.

The blog belongs to woman from Moscow who considers herself a witch and expert in paganism. She uses her blog to promote seminars about paganism and pagan rituals in Moscow, as well as to share some of her thoughts on these topics. At the same time the blog is used for discussing a wide range of other common topics – relationships, going out in Moscow, a story about car accident that the blogger saw from her window, memories about studying in school, shopping, Web design, and so forth. The blog of a housewife, posting on her personal life only: bringing up her children, housekeeping, her divorce, the heat in Moscow, etc. She looks like a typical middle-aged city housewife with everyday concerns.

The author is a provincial man, chatting about his personal and social life: favorite books, photos, travelling, an archaeological trip, study, family. The blogger seems to be romantic, thoughtful and sometimes boring.

A lesbian writes about homophobia in Russia and in her everyday life. She tells about her girlfriend and thoughts about gender issues. She participates in prohibited gay pride parades and tells how they are closed down, and problems with police.

A girl who is fond of dancing, particularly pole dancing and moderates several communities about dancing, so she writes about her hobby a lot. She also writes a lot about women's issues, how to be in shape, how to lose weight, and how to eat right.

2. REGIONAL

The bloggers in these four clusters are united in a regional emphasis – on Ukraine, Armenia, Israel, and Belarus. They blog primarily in Russian, but many are located outside of Russia, and link to Web sites and other content hosted outside of Russia as well.

2.1 Ukraine (322 blogs)

84% of the coded blogs in this cluster are based in Ukraine, and a large majority of the outlinks are Ukrainian news, information, and entertainment Web sites such as: pravda.com.ua, unian.net, korrespondent.net, telekritika.ua and obkom.net.ua.

Coder Descriptions:

This is a diary like blog of a system administrator who lives in Ukraine and writes about everyday life. He complains a lot on the condition of roads and crazy drivers. He describes how he renovates his apartment and how he argues with his wife a lot.

The blog probably belongs to anti-fascist activist from Ukraine. Half of the blog is dedicated to political action and protests (primarily in Ukraine). The second half is mostly artistic pictures, probably by the blogger himself. Most of the blog is in Ukrainian. Consequently it a semi-political, semi-photography personal blog.

A blog of an intelligent female, who writes a lot about her everyday life. Since she lives in Kiev, she speaks about many aspects of life in Ukraine.

The blog belongs to a Ukrainian politician and a member of Ukrainian parliament who supports the Russian wing of Ukrainian politics and the current president, Yanukovich. The blog discusses the political situation in Ukraine, provides analysis of election's results, gossips about sexual life of Yushenko, and criticizes Ukrainian nationalists. The blogger also discusses politics in the Ukrainian blogosphere and provides a list of Ukrainian bloggers involved in politics: To conclude it's a political blog of active politician.

2.2 Belarus (80 blogs)

A majority of the bloggers in this cluster (72%) appear to be based in Belarus. This cluster is predominantly male, and appears to have an oppositional bent. The top two sources, to a large degree, are independent, oppositional media – the Web site for an independent, oppositional Belarusian weekly 'Nasha Niva' (nn.by) and the Belarusian site for Radio Free Europe/Radio Liberty (svaboda.org). Charter97.org, an oppositional Belarusian news portal, is also among the top sources.

Coder Descriptions:

Russian-language LiveJournal blog of 53-year old Belarusian political analyst and journalist. Mostly writes on his professional activities which are related to making and studying different publications on social issues, politics, philosophy, psychology, and education. There is some analysis on contemporary Belarusian life, and also some notes on personal experience. Also shows an interest in Christianity. Probably not very loyal to Belarusian authorities.

Some posts are in Belarusian language. A lot of post are thoughts about life in Belarus and Belarusian politics – he discusses about how the life in Belarusia would be if the situation was different. He watches a lot of movies and writes his own reviews. There are some posts about World Cup soccer as well.

The blog belongs to a young activist of the Belarusian opposition, who currently lives in Lithuania. According to his profile, he was prosecuted by Belarusian authorities since he was a member of the political oppositional organization 'Youth Front' and currently he continues his activities from Lithuania. The majority of his blog is in Belarusian, with a focus on critical coverage of Belarusian politics. The blog is also used for discussing interesting news (e.g. scientific news), the World Cup, and also posting funny videos and writing about movies/music.

2.3. Armenia (116 blogs)

This cluster represents a tight-knit community of Russian speaking Armenians with a strong presence on LiveJournal. Bloggers are mostly linking to each other, and to Armenian news sources such as news.am. A significant, but not overwhelming, proportion of these bloggers (around 25%) are located in Armenia.

Coder Descriptions:

Armenia-related blog of a blogger who says he is related to 'ArmenianHouse.org Electronic Library' and maintains the blog to discuss topics related to that project. The blogger posts in Armenian, Russian, and English. He posts news and opinions on various cultural and social topics, including cooking, Internet usage, journalism, religion, etc.

Armenia-related Russian language blog of a journalist. He discusses Armenian and Caucasusrelated topics and news, along with general notes on Russian and worldwide social and cultural news and events. There are rare occasional posts in Armenian.

The blogger defines himself as Web designer and political expert. The blog covers various aspect of life in Armenia including politics, culture, architecture, and history. It also raises the Nagorno Karabakh issue. On the other hand, the blogger discusses his professional work as Web designer and his Internet projects.

2.4. Israel (110 blogs)

This cluster is dominated (90%) by Russian speakers living in Israel. The top sources are bilingual Russian/Hebrew as well, such as: a site for online petitions on various topics (http://atzuma. co.il), the site for a leading Isreali Russian language TV channel (Channel 9 – http://zman.com), and a site for Israel related news in Russian (http://cursorinfo.co.il).

Coder Descriptions:

This is a Russian-language LiveJournal blog of a man living in Jerusalem who seems to be interested in singing with guitar. Blog contains notes on cultural Israeli and Russian events the author seems to be connected with, and general notes on political and social topics in Israel and the CIS. Sometimes there are different poems posted, and diary notes with photos.

This is a Russian-language LiveJournal blog of an Israeli woman who seems to be interested in writing stories. The blog is mainly dedicated to cultural topics: literature, poems, theatre, and to various social topics. There are also personal diary-like entries that may be illustrated and include her opinions.

The blog belongs to a Russian-Hebrew translator that lives in Israel. His blog covers Israeli news and politics, personal thoughts, issues related to his profession as a translator, and short stories/ anecdotes. He tells stories from his family's past and his own memories, shares short anecdotes and philosophical stories, and appears to support Israel in the flotilla incident by posting videos that show violence against Israeli soldiers.

3. INSTRUMENTAL

The Instrumental network formation contains six clusters whose bloggers seem to write for a purpose other than, or in addition to, self-expression. We do not describe these clusters separately below as they are quite similar. This region contains blogs predominately designed for Search Engine Optimization, to collect as many 'friends' as possible, to exchange links, and otherwise maximize blog ratings. The two largest clusters in this group, with almost 400 members each, are 'SEO/SPAM' and 'Link Exchange,' while others are smaller in size, sometimes made up of just 60 bloggers.

Some bloggers in this region have a clearly commercial goal – and are attempting to monetize their blogs either through direct or indirect advertising. Their content ranges from partially automated and obviously copied content to a more sophisticated 'content advertising' approach, where advertisements are designed to appear as sincere journal entries. For other bloggers, the purpose of the higher ranking is less obvious. Significantly, one smaller cluster in the Instrumental zone of the map has a number of pro-government youth group bloggers, who are also found in other parts of the network that are more focused on politics and public discourse. We have no evidence to explain why some of these bloggers are found in the Instrumental section of the map.

Coder Descriptions:

Most of the posts in this blog have an instrumental nature. Even if when the blogger discusses the responsibility and morality of Nabokov, it looks like a promo for an online portal that published an article on this topic. Despite the fact that some of the posts have a personal narrative, it is an instrumental blog.

A blog of a young woman, who studies in the University. Her open posts are full of hidden advertising and links to other Web sites, so most probably she earns money with her blog. Small part of personal information that she publishes is about her emotions, relations with parents and friends, and her studies.

It's an instrumental blog. The blogger posts funny pictures that are followed by information with advertising and promotion for various types of goods and services.

Russian language LiveJournal blog from Ukraine, which seems to be dedicated to SEO and link exchange, but appears to be maintained and read. Blog is dedicated to general entertainment, and also to Ukrainian news. Content is mainly reposted from different sources. There are few comments, and the user answers them so this isn't a completely automated aggregator.

4. RELIGION

Russian Orthodox (179 blogs)

There is one cluster that is focused primarily on religion. This is a particularly well-defined cluster, where virtually all the blogs and outlinks are focused on Russian Orthodox Christianity. Top outlinks include Russian Orthodox portals such as http://pravmir.ru and http://bogoslov.ru, with hundreds of thousands of visitors per month and diverse links to interactive conversations with priests, Orthodox cuisine, and articles on theology, history of the church, other religions, relevant books and publications, and church and religious news. The official Web page of the Moscow Patriarchate of the Russian Orthodox Church, http://patriarchia.ru, is also one of the top outlinks. The gender breakdown of the coded blogs in this cluster is 69% male and 31% female. The bloggers include priests, as well as individuals for whom religion is a key aspect of their lives.

Coder Descriptions:

This blogger seems to be an orthodox believer and is interested mostly in religious issues: relations between Orthodox Church and the state (e.g. the meeting of Patriarch of Moscow and All Russia Kirill with President Medvedev), ethical questions (e.g. sexual minorities and the Church), social issues (e.g. children in the Church). One of the most frequent resources for commenting is a site pravmir.ru, a news portal on orthodoxy and society.

The blog belongs to a priest of the Russian Orthodox Church in Omsk. The blogger covers the life of the local religious community, asks for help with restoration of the church's icon, requests for charity, and also comments on various events in the life of the city of Tomsk. He also posts videos and clips about local life and his church. One of the local topics that widely covered by the blog is the rescue operation following a flood in Tomsk.

A blog of an Orthodox priest, who writes about his services and everyday issues. He posts some rock music and trailers for Hollywood movies. He speaks a lot about faith and Christianity and says that the most important thing is to have faith in Christ, all other things a person can learn. He listens to rap music and comments on the arrest of the famous rapper who was arrested for 10 days because his lyrics which were considered offensive to police.

A romantic 31 year old woman who publishes poems by her friends and much information about art and music. She is Orthodox Christian, so some of her posts are on religious topics, as well as some images and video files. She is moderately religious (she also posts jokes on religious topics), she loves nature (a lot of posts with photos of flowers), and she is artistic herself.