

Mapping Iran's Online Public: Politics and Culture in the Persian Blogosphere

By John Kelly and Bruce Etling

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ABSTRACT

We used computational social network mapping in combination with human and automated content analysis to analyze the Iranian blogosphere. In contrast to the conventional wisdom that Iranian bloggers are mainly young democrats critical of the regime, we found a wide range of opinions representing religious conservative points of view as well as secular and reform-minded ones, and topics ranging from politics and human rights to poetry, religion, and pop culture. Our research indicates that the Persian blogosphere is indeed a large discussion space of approximately 60,000 routinely updated blogs featuring a rich and varied mix of bloggers. Social network analysis reveals the Iranian blogosphere to be dominated by four major network formations, or poles, with identifiable sub-clusters of bloggers within those poles. We label the poles as 1) *Secular/Reformist*, 2) *Conservative/Religious*, 3) *Persian Poetry and Literature*, and 4) *Mixed Networks*. The *secular/reformist* pole contains both expatriates and Iranians involved in a dialog about Iranian politics, among many other issues. The *conservative/religious* pole contains three distinct sub-clusters, two focused principally on religious issues and one on politics and current affairs. Given the repressive political and media environment, and high profile arrests and harassment of bloggers, one might not expect to find much political contestation in the blogosphere. However, we identified a subset of the *secular/reformist* pole focused intently on politics and current affairs and comprised mainly of bloggers living inside Iran, which is linked in contentious dialog with the conservative political sub-cluster. Surprisingly, a minority of bloggers in the *secular/reformist* pole appear to blog anonymously, even in the more politically-oriented part of it; instead, it is more common for bloggers in the religious/conservative pole to blog anonymously. Blocking of blogs by the government is less pervasive than we had assumed. Most of the blogosphere network is visible inside Iran, although the most frequently blocked blogs are clearly those in the *secular/reformist* pole. Given the repressive media environment in Iran today, blogs may represent the most open public communications platform for political discourse. The peer-to-peer architecture of the blogosphere is more resistant to capture or control by the state than the older, hub and spoke architecture of the mass media model.

THE INTERNET & DEMOCRACY PROJECT

This case study is part of a series produced by the Internet and Democracy Project, a research initiative at the Berkman Center for Internet & Society, that investigates the impact of the Internet on civic engagement and democratic processes. More information on the Internet and Democracy Project can be found at <http://cyber.law.harvard.edu/research/internetdemocracy>.

The initial case studies include three of the most frequently cited examples of the Internet's influence on democracy. The first case study looks at the user generated news site, OhmyNews, and its impact on the 2002 Presidential elections in South Korea. The second case documents nontraditional media and the use of cell phone technologies for information sharing and organization of protesters during Ukraine's Orange Revolution. The third case study analyzes the composition of the Iranian Blogosphere and its possible impact on political and democratic processes. The objectives of these initial case studies are to write a narrative description of the events and the technology used in each case, to draw initial conclusions about the actual impact of technology on democratic events and processes, and to identify questions for further research.

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TABLE OF CONTENTS

| | |
|----|--|
| 5 | Introduction |
| 7 | Structure of the Iranian Blogosphere |
| 10 | Finding Politics in the Iranian Blogosphere |
| 11 | Pole Profiles |
| 11 | <i>Poetry and Mixed Networks</i> |
| 11 | <i>Secular/Reformist</i> |
| 12 | <i>Conservative/Religious Pole</i> |
| 12 | Content Analyses |
| 12 | Human Coding |
| 15 | Term and List Frequencies |
| 17 | Outlink Analysis |
| 19 | Filtering and Blocking of Persian Blogs |
| 21 | Politics and Media in Iran |
| 22 | Discussion and Conclusion |
| 26 | Appendices |
| 26 | Appendix A: Questionnaires |
| 29 | Appendix B: Methodology |
| 30 | Appendix C: YouTube Clips |
| 31 | Appendix D: Term and List Frequency Analyses |
| 33 | Appendix E: Blog Descriptions by Cluster |

INTRODUCTION

If one follows Iran, or follows the global phenomenon of blogs, there is a story that emerges across numerous articles, reports, and interviews. It is the story of online dissent in Iran, and it goes something like this:

Iran, a country rich in history, culture, and education, supports a large online community, including perhaps the fourth largest 'blogosphere' in the world (or the second, third or seventh). Because the Iranian press is under the control of religious conservatives who sit above elected officials in Iran's peculiar hybrid political system, and because that conservative control is used to silence dissent, Iranians who think differently go online to express their views. Here, the inherent freedom of the Internet (anonymity, decentralized control, etc.) allows the true minds of Iran's youth, journalists, and intellectuals to be known publicly. In their blogs and online chats we see their rejection of the regime, its brutal paternalistic control, its enforcement of archaic sexual mores, its corruption and incompetence, and of the legitimacy of the Islamic Republic itself. The government, worried, has cracked down. Bloggers have been sent to jail, websites are being blocked, and user bandwidth is constricted, but the Internet continues to be one of the best hopes for homegrown democratic change in autocratic Iran. If you read Iranian blogs, it is clear that many Iranians want drastic social and political change.¹

The difficulty with this story is not its veracity. Aside from the grander claims regarding the rank order of Persian among the world's blogging languages, there is little in the story that does not merit considerable confidence. It is the story of brave people yearning for freedom and democracy. It is quite understandably a story many people want to hear. But it is not the whole story. If the Iranian blogosphere is a place where women speak out for their rights, young people criticize the moral police, journalists fight against censorship, reformists press for change, and dissidents press for revolution, it is also a place where the Supreme Leader is praised, the Holocaust denied, the Islamic Revolution defended, Hezbollah celebrated, Islamist student groups mobilized, and pro-establishment leaders, including President Ahmadinejad, reach out to their very real constituencies within the Iranian public. Furthermore, a great deal of the discourse in the Iranian blogosphere has little to do with an outside observer's pre-

conceived list of key issues. Religion is a major topic for bloggers, and not predominantly in its overtly political aspects, but more often in its historical, theological, and deeply personal ones. Persian culture and history, including music, visual arts and performance, but most especially poetry, are very big topics. Sports are popular too, as are movies. And as in the American blogosphere, a great many bloggers write simply about their day-to-day lives, seemingly with mnemonic rather than polemical purposes in mind.

The difficulty, then, with the dominant 'online dissent' narrative is that it describes just one part of a very complex online public communications network, and without a broader view, it is hard to assess the nature and impact of this activity, especially in the context of other major strands of online discourse in Iran. The goal of the current study is to provide a broader view, perhaps one of many that are necessary, and to introduce some empirical grounding for considering questions about online public communications and democracy, both in Iran and, ultimately, anywhere.

We found that the Iranian blogosphere supports a political discourse that is rich, contentious, and varied. A wide range of opinion is represented, on a large number of specific issues of concern to Iranians. Competing points of view are found on issues that are on the agenda of the international community, like human rights and nuclear development, and even more so on issues that are more salient to Iranians, like the economy, drug abuse, prostitution, and the environment. As common in democracies, popular concern with domestic issues appears to outweigh concern with international ones. Criticism of government policies and leaders is routine, even among conservatives, though among the latter there is a clear conceptual separation between the *government* and the Islamic Republic/Supreme Leader. Despite its complexity, political viewpoints align in two main camps, clearly visible in the network structure of the Iranian blogosphere. Whatever we call these, *liberal* and *conservative*, *secular* and *Islamist*, or *traditionalist* and *reformist*, the labels are clearly poor expressions of the cultural meaning in an Iranian context. And yet we can understand something of the differences between the two.

Our study leverages content analysis of blogs against a large-scale social network analysis of the 'Iranian blogosphere.'²

Networks have structure that can be mathematically measured and graphically visualized. The shape of a network that emerges from the billions of individual writing and linking choices made by millions of individual authors will reflect large trends in what interests them. Research on blog networks bears out the intuition that large-scale online communities are structurally reflected in higher density network neighborhoods.³ In other words, with a universe of possibilities to choose from, bloggers link preferentially to things that are of most interest to them. Thus, where there are topics of interest in a society, there will often be collection of blogs connected to each other (and to other online resources) by many links. This simple insight, on the scale of a society, nation, or linguistic community, has a remarkable implication. Unique as a snowflake, the network structure of a society's blogosphere will reflect salient features of that society's culture, politics, and history. A society's online communities of interest, social factions, and major preoccupations can be seen and measured, their words read and analyzed, through a combination of structural and statistical analysis and textual interpretation.

Using links captured from the Iranian blogosphere over a period of seven months, we map the structure of the network in two ways. First, we identify large scale groupings of densely linked blogs in the network. Second, clustering methods are used to discern patterns in the links from these blogs to all other Internet resources (not only blogs), defining *attentive clusters* of bloggers who link to similar things, thus sharing informational worlds. Several types of content analysis are used to help interpret the cultural and political meaning of the Iranian blogosphere's structure. We worked with a team of Persian speakers to read and code hundreds of blogs using two questionnaires. We analyzed the frequencies of words and phrases in the posts of Iranian bloggers. And we spent hours sitting with culturally knowledgeable Iranians, looking at dozens of blogs in key positions on the map, as well as dozens of the news sites, organizations, and other online resources these bloggers link to. The results, quantitative and qualitative, portray a diverse network of online discourse, in which one can see the richness of Iranian culture and the clear footprint of political contention. The society's broad ideological divide is visible, as well as the more focused roil of practical politics.

Iranian bloggers include members of Hezbollah, teenagers in Tehran, retirees in Los Angeles, religious students in Qom, dissident journalists who left Iran a few years ago, exiles who left thirty years ago, current members of the Majlis (parliament), reformist politicians, a multitude of poets, and quite famously the President of Iran, among many others. In the following analysis we tour the network neighborhoods of the Iranian blogosphere, and address the question of whether this public network of information and opinion is positioned to realize its democratic potential within Iran. The Iranian government is a vigorous censor of the Internet. Aside from arresting bloggers whose writing offends them, the government forces ISPs to block access to a large number of websites, including many blogs. We include findings of the OpenNet Initiative, which show what parts of this discourse network are visible inside Iran. And yet Iran is not a garden-variety authoritarian state. Power is not perfectly concentrated, but exists in a number of often competing institutions. Elections are contested and have real consequences, even if who is allowed to compete is tightly controlled. Despite conservative control of the press, criticism of government policies and officials is widespread, often from competing members of the establishment itself as well as what opposition is tolerated. Amid the repression in Iran, there is a great deal of contentious public discourse about politics, at least in the Iranian blogosphere. We conclude with a general consideration of blogs in the context of democracy and public communication, drawing on what we learned studying the unusual case of Iran.

STRUCTURE OF THE IRANIAN BLOGOSPHERE

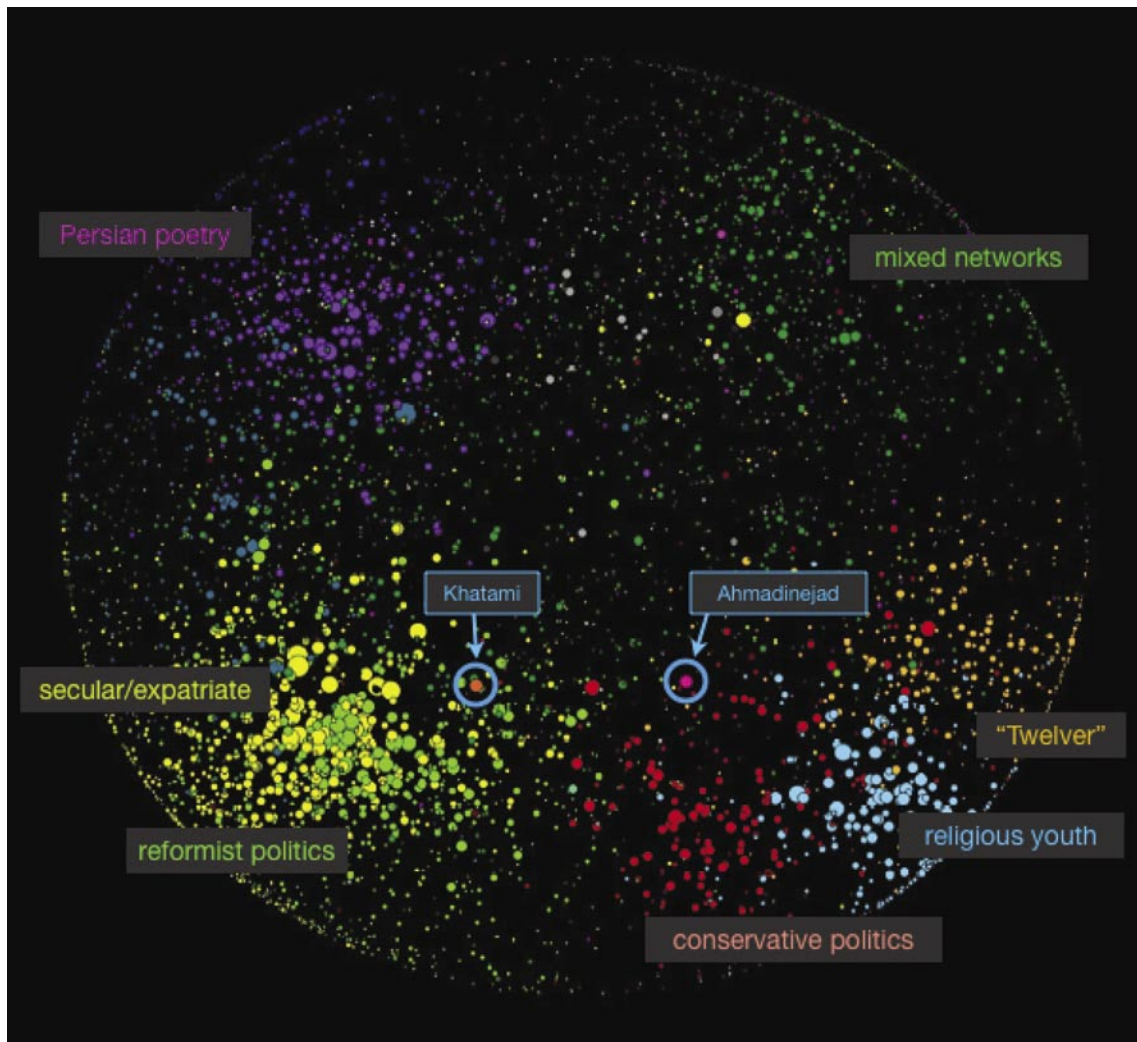


fig. 1: social network map of Iranian blogosphere

Figure 1 is a network map of the Iranian blogosphere, in which each dot represents a blog. Understanding the map is the key to understanding the Iranian blogosphere. The size of the dot represents the number of other blogs that link to it, a measure of its popularity. The position of each dot is a function of its links with its neighbors. The diagram is drawn with a Fruchterman-Rheingold 'physics model' algorithm. Imagine that there is a general force trying to push all blogs away from each other, like a wind blowing them off the map, and that a spring (or force of gravity) pulls together any two blogs that are linked online. Blogs will thus be drawn together by their direct links, but more importantly by the links among their shared neighbors. Thus large groups of blogs cluster up into densely interlinked network neighborhoods. Blogs that share a lot of common neighbors will be close together in the map, even when they do not link directly to one another.

The color of each dot on the map is determined through a different process. A large proportion of the links from blogs are not to other blogs, but to online news, organizations, businesses, and various other Internet resources. In some areas of the blogosphere, particularly clusters attentive to news and public affairs, the majority of links are to things other than blogs. On this map, color 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 with others that share a similar linking profile. Traditional audience measurement of mass media use 'soft' measures of attention, which estimate probable attention to media and messages based on inferences. If a person subscribes to a certain magazine, or has the television tuned to a certain

channel at a certain time, researchers infer the likelihood that a particular advertisement was seen. In blogs, linking to something represents a hard measure of the blogger's attention, which is why a statistical correlation in linking patterns among a number of bloggers is interpreted here as an *attentive* cluster. We see clear patterns in what bloggers are paying attention to across the network. *Network neighborhoods* and *attentive clusters* usually overlap a great deal, but it is important to understand that they represent two different (though highly correlated) things. The first is the direct linking among bloggers, i.e. who is close to whom in the online newsroom, the second is where they are linking to in the Internet at large, i.e. who is looking in the same direction, statistically speaking.

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 they are interested in. This phenomenon is an extension into blogging practices of social behaviors that are well understood in other social scientific contexts. Sociology has an extensive literature on *homophily*, the tendency of social actors to form ties with similar others.⁴ Communications research has identified complex processes of *selective exposure*, by which people choose what media to experience, interpret what is experienced, and remember or forget the experience according to their prior interests and beliefs.⁵ Online behavior is conditioned by the user's preferences in conscious and unconscious ways. In the Blogosphere, these preferences express themselves as choices about what to read, write about, link to, and comment upon. The result of this online activity is a *discourse network*, tractable to empirical research as a massive corpus of text and hyperlinks created by millions of people and stored on thousands of the world's Internet servers. By mapping this network and using the map to view these blogger's communicative activity, we achieve something like an fMRI of the social mind.

The Iranian blogosphere is dominated by four major network formations, each with its own interesting structural and social characteristics. With the notable exception of Mahmoud Ahmadinejad, most Western (e.g., academic, think tank, and journalistic) discussion about the Iranian blogosphere refers to bloggers who are found within just one of these structures, a large group dominated by expatriates and reformists and featuring frequent criticism of the Iranian regime and its political values and philosophy.

It is often difficult to judge where a blogger is physically located, especially since Iranian bloggers inside and outside Iran use the same Persian language blog hosting services, but our analysis suggests that a significant proportion of the bloggers in what is thus popularly understood to be the 'Iranian blogosphere' do not live in Iran. Blogs in the remaining three groups appear to be authored almost exclusively by people living inside Iran, and reflect a diversity of interests and concerns that our analyses have identified and located to particular sectors of the map.

We refer to the four major regions of the Iranian blogosphere, which appear in separate quadrants of the social network map as *poles*. In this complex network, each pole has its own structural characteristics, and these reflect important characteristics of the communities of bloggers found there. Our various analyses tell aspects of the same story. We will look at each of these in turn but first, in summary, the four poles of the Iranian blogosphere are:

- 1.) **Secular/reformist.** {includes *secular/expatriate (secPat)* and *reformist politics(refPol)* on figure 1} This sector contains most of the 'famous' Iranian bloggers, including notable dissidents and journalists who have left Iran in recent years, as well as long time expatriates and critics of the government.
- 2.) **Conservative/religious.** {includes *conservative politics (conPol)*, *religious youth (relYth)* and 'Twelver'(12er) on figure 1} This sector features bloggers who are very supportive of the Iranian Revolution, Islamist political philosophy, and certain threads of Shi'a belief.
- 3.) **Persian poetry and literature (poet).** {*Persian Poetry* on figure 1} The third major structure in the Iranian blogosphere is devoted mainly to poetry, an important form of Persian cultural expression, with some broader literary content as well.
- 4.) **Mixed networks (mixNet).** {*Mixed networks* on figure 1} The fourth group of blogs is different from the first three in that its structure is looser and less centralized. It does not represent any particular issue or ideology, but rather the loosely interconnected agglomeration of many smaller communities of interest and social networks, such as those that exist around sports, celebrity, minority cultures, and popular media.

While the four corners of the Iranian blogosphere each require their own interpretation, some general insights emerge from the basic data collected on bloggers in the major clusters. The *secular/reformist* and *conservative/religious* poles each contain subgroups, which were profiled independently in the collection of basic data on blogger location, gender, and anonymity. These subgroups are described in more detail below, but some differences among them can be observed in the basic data. These data are the results of human researchers making judgments based on reading blogs sampled from the clusters, and in many cases the researchers did not feel confident to make a determination, and answered ‘don’t know’ (*dk*). Bar charts include these *dk* values. Several observations stand out:

- **Location (fig. 2):** With the exception of the first *secular/expatriate* cluster (*secPat*), which contains a significant number of expatriate bloggers, the vast majority of bloggers live inside Iran.

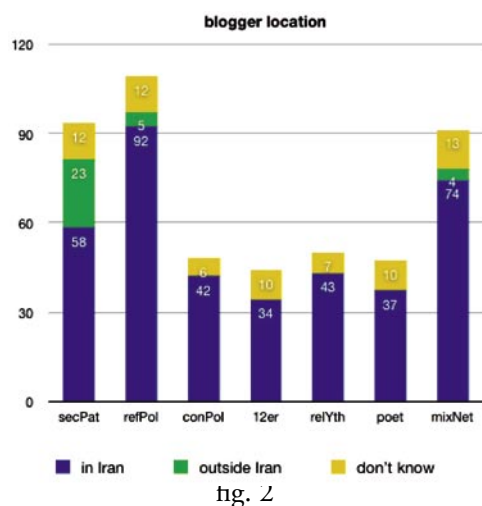


fig. 2

- **Gender (fig. 3):** The majority of the bloggers in all clusters are men, but some clusters feature a large minority of women, principally *secPat* and *poetry*, and to a lesser degree *mixNet* and the ‘Twelver’ sub-cluster of the conservative pole.

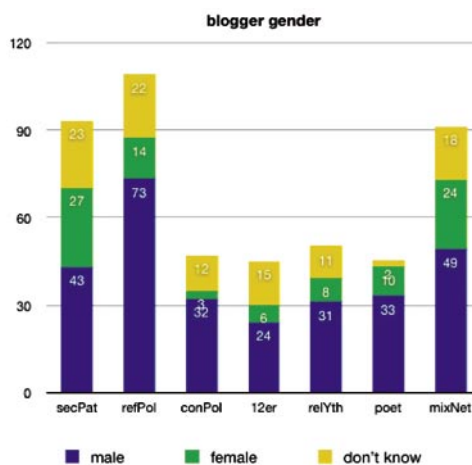


fig. 3

- **Anonymity (fig. 4):** There are interesting variations in the balance of bloggers using what appears to be their name vs. are blogging anonymously or under an obvious pseudonym. Our hypothesis had been that *secular/reformist* bloggers, especially those living inside Iran, would be the most likely to blog anonymously, yet the opposite is true. Conservative bloggers write anonymously far more frequently, as do bloggers in the *MixNet*. Only the poets are more likely to use what appear to be real names.

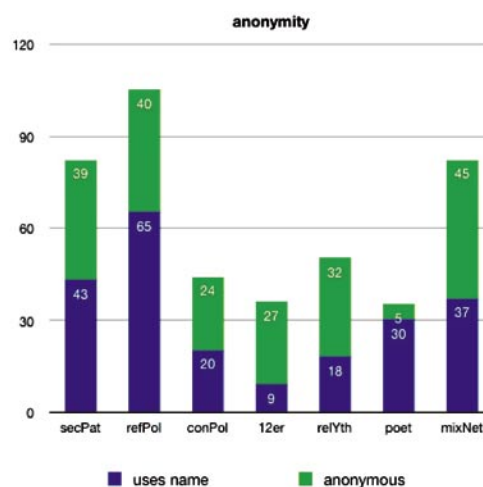


fig. 4

- **Age (fig. 5):** The researchers were usually unable to estimate the bloggers' ages, and we consider this data very unreliable. However, in qualitative discussions about blog contents, researchers repeatedly made observations that confirmed the general indication that the conservative pole, most especially the cluster we call *religious youth*, contains younger bloggers on average than other parts of the map.

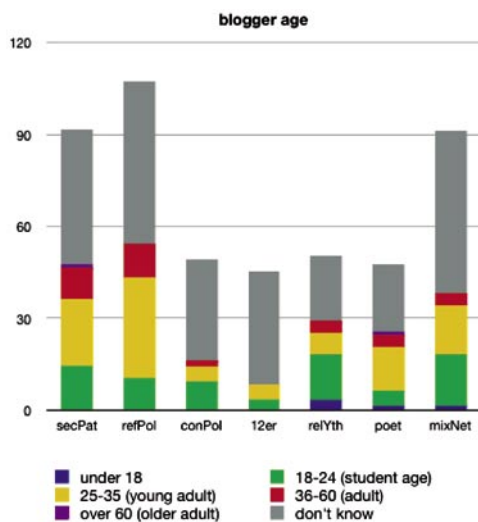


fig. 5

FINDING POLITICS IN THE IRANIAN BLOGOSPHERE

The goal of this analysis is to assess the political significance of the Iranian blogosphere. 'Everything is political' according to a popular trope, though we must accept a meaning of *political* verging on useless abstraction. The phrase is useful, however, for highlighting one pole in a continuum of 'political' discourse that ranges from the definition of reality and values on one side to the exercise of power on the other. On the *values* end we have a struggle over the symbolic construction of group reality. Who are we, what is right, who among us are good and who bad, what ought we be doing? In the case of Iran, this is a broad cultural struggle between religious and secular ideologies that is played out across myriad issues like women's clothing, cable television, popular music, the memory of the Iran-Iraq War, capital punishment, temporary marriages, historical events and figures, and appropriate styles of love and ro-

mance. On the *power* end, we have the struggle over government decision-making. What economic policy should the government pursue, who should be elected to the Majlis, is this or that officeholder doing a good job, should we continue refining uranium? In practice, arguments over practical particularities of governing are often indexed to abstract values, and abstractions are often justified with reference to practical facts. But in any society there is a wider discourse about the interpretation of reality and group norms, which we could call *cultural politics*, and a focused discourse about particular laws, policies, elections, and government officials, which we could call *power politics*. In Iran, as in the US, these two are deeply entwined, and the public sphere features politicized 'culture wars' as well as arguments over practical policies. Americans argue over teaching evolution in schools and also over Medicaid; Iranians argue over *hijab* (appropriate women's dress) in the streets and also over gasoline subsidies.

In most autocratic countries, struggles over particular state policies and decisions normally happen far from public view. By contrast, in most democratic countries arguments and evidence in support of multiple positions on all sorts of issues compete for public attention. In the former case, public political discourse faces supply side constraints. In the latter, public attention is the limiting resource. Agitators for everything stand on the largest available (or affordable) soapbox and shout to citizens, who generally are more or less just trying to go about their business. In a democratic society, advocates abound. The Iranian blogosphere is full of advocates, on all sides.

If, thanks to widespread satellite television and the occasional short-lived newspaper, conservative clerics lack a total monopoly on one-to-many mass media, even less do political reformists and modern-minded youth have a stranglehold on the Iranian blogosphere. This is why the story about Iranian online discourse usually reported in the West is so inadequate. Perhaps the most remarkable thing about the larger network of bloggers is its sheer diversity. As in the American blogosphere, the cartoonishly simple portrayal of political attitudes and human characters found in mass media fade in the face of the complex variety of real human voices. Our imagined enemies are not always the cardboard villains we assume them to be, and our imagined allies are not always the freedom-loving liberals we read about. There are clerics who favor relations

with the West, and secularists who favor the enrichment of uranium. The Iranian blogosphere features thousands of politically attentive individuals, commenting on every imaginable issue, with a breadth of perspectives.

Our network map guides us, however, to understanding how this vast diversity is organized, how the more salient tendencies in the interests and ideologies of Iranian bloggers create large network structures, and which of these have what kind of political significance. In the *mixed networks* pole we find bloggers interested in all sorts of things, from pop music to Zoroastrianism. We found some blogs with political overtones, but mostly other things. The cluster around Persian poetry is concerned mainly with love poetry, and does not appear overtly political. Nevertheless, it is more interlinked with the *secular/reformist* pole than with the religious one. While the latter two poles reflect interesting features of Persian culture and key modes of discourse, including some with oblique or implicit political significance (“Persians have always used poetry to encode politics,” one exiled expert on politics told us), overtly political discourse occurs principally in the two poles representing competing visions of Iranian society. The *secular/reformist* pole features the significant participation of expatriate Iranians and women. It comprises a single structural group, though *attentive cluster analysis* reveals underlying tendencies and differences in focus among *secular/reformist* bloggers. The other pole, *conservative/religious*, overwhelmingly contains bloggers living inside Iran, and who are, with a few exceptions, male. The *conservative/religious* pole features three structurally distinct sub-clusters, each of which largely comprises its own distinctive *attentive cluster*.

These two ideologically polarized poles each contain hundreds of bloggers writing about all sorts of politically contentious things. Both groups contain speech along the continuum from cultural politics to power politics. Furthermore, our analysis reveals subgroups on each side in which the discourse of power politics is the focus. In short, each large pole represents a broad ideological perspective, and has an identifiable subgroup keenly attentive to the politics of governance. As with the ‘inside the Beltway’ bloggers in the U.S. blogosphere network, the most politically attentive members of the two opposing ideological camps face each other across the network gap, more adjacent to each other than to anyone but their own ideological cohort.

The following sections present the findings of several distinct analyses, all of which help to illuminate the political dimensions of the Iranian blogosphere. These analyses are

preceded by a brief introduction to the major parts of the Iranian blogosphere, including descriptions of sub-clusters used in the analysis.

POLE PROFILES

Profile: Poetry and Mixed networks

The *Poetry* pole is focused almost completely on a single topic or activity. Most of the blogs feature poems (original, quoted, and historical) as well as analysis and discussion of poetry, with a particular focus on love poetry and *Ghazal*, a traditional poetic genre. Poetry is a major form of cultural production in Iran, historically and, unlike in the West, today as well. By contrast, *mixed networks* is a patchwork of small sub-networks discussing an assorted plethora of different issues and topics. It has no A-list of stars, nor any discernable center of gravity. There are blogs about soccer, pop music, Zoroastrianism, political poems, a great many personal diaries, and various other sundry things. Whereas the other clusters have clear patterns of concentration in their outlinks—meaning that they link preferentially to coherent sets of online resources (such as particular sets of news sites or NGOs)—this group links to a wide variety of things in no clearly patterned way. This pole comprises a kind of loose tissue of very modestly popular blogs that are unaffiliated with larger political and cultural movements, as well as the ‘treetops’ of particular social networks of friends, students, and subcultures.

Profile: Secular/reformist pole

This pole is comprised of a single large structural cluster which contains a *degree distribution* (popularity curve) typical of emergently organized blogosphere structures, meaning that it arises from a great many bloggers making independent choices about whom to link to, but with substantial recognition of particular high-profile blogs (an ‘A-list’). This kind of structure is found in the liberal and conservative clusters of the US blogosphere, as well as much of the technology blogosphere. This cluster features a relatively high proportion of prominent women bloggers, which is notable since prominent bloggers in the other clusters are typically male. The blog network is well integrated, in the sense that the structure of links among bloggers forms a single large neighborhood. However, *attentive cluster analysis* shows patterns in the linking behavior of bloggers that reveal different dimensions of interests. While these blogs in general reflect a secular, often reformist point of view, one attentive cluster is particularly focused on politics, and discusses news items, current affairs, and particular public

figures with great frequency. More about the two *attentive clusters*:

- **Secular/Expatriate (SecPat):** This cluster features a large proportion of women and expatriates. Common topics include women's right and political prisoners. Many of these blogs discuss cultural issues, including cinema, journalism, books, and satire.
- **Reformist Politics (refPol):** This cluster focuses more intently on hard politics, including news and current affairs, journalism, particular politicians and issues, including drug abuse and environmental degradation in Iran. Bloggers in this cluster are overwhelmingly male, and live inside Iran. Counter to our expectation given the risks that they face, most of these bloggers write under what appears to be their own name, as opposed to blogging anonymously or using a pseudonym.

Profile: Conservative/Religious Pole

The overwhelming majority of blogs in the Conservative pole are infused with religious references. Many of the blogs are primarily religious, and not overtly political. Other blogs focus intensely on politics. Blogs in this cluster support the philosophy and legitimacy of the Islamic Republic and the Supreme Leader, if not always particular government policies and politicians. The Conservative pole is composed of three interlinked but structurally distinct sub-clusters, which are:

- **Conservative Politics (conPol):** This cluster focuses on power politics, in the sense of tracking news, issues, and current public affairs. It features discussion and criticism of particular politicians and policies. The focus is on domestic issues primarily, including the economy, but with attention to international news and foreign policy as well. Quotations from the speeches of politicians are very frequent. While some of its members support the current government absolutely, criticism of government institutions and political leaders, including Ahmadinejad, is common.
- **Twelver discourse (12er):** The majority of Shi'a Muslims (~89% in Iran) believe that Muhammad ibn Hasan ibn Ali, or al-Mahdi, the 12th Imam (according to their line of secession, which is contested with other branches) has for over a millennium been in a state of occlusion,

hidden and protected by God. He will return as the ultimate savior of mankind, creating a perfect Islamic society before a final day of resurrection. While Twelvers are the dominant Shi'a sect in Iran, some members focus much more intensely on the Mahdi's expected return, including some of the most radical political Islamists in the governing establishment. Ahmadinejad courts the approval of this group in frequent symbolic acts. To many conservatives, the entire purpose of the Islamic Republic is to prepare the way for the 12th Imam's imminent return. This cluster comprises several hundred devoted Twelver bloggers, and is intensely concerned with religious matters.

- **Religious youth (relYth):** This cluster contains bloggers who tend to be younger than those in other clusters, including a lot of students. Religion is a dominant topic of concern, and the cluster has structural properties (strong similarities in outlink profiles, relatively egalitarian in-cluster linking) that indicate possible institutional coordination. There are a number of putatively 'grass-roots' conservative student blogging associations in Iran,⁶ and it is possible they account for this phenomenon.

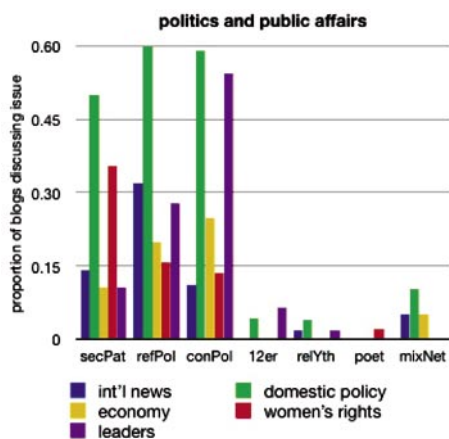
CONTENT ANALYSES

To determine what the bloggers in different clusters care about, below we conducted three separate content analyses. First, we used human researchers to identify key topics of posts, and provide brief summary descriptions of blogs they read. Second, we analyzed relative frequencies in the use of terms found in blog posts across the various clusters. And third, we looked at groups of outlinks (news sources, websites, and other blogs) favored by particular parts of the Iranian blogosphere.

Analysis 1: Human Coding

Our team of Persian speakers read and coded approximately five hundred blogs, sampled from across our chosen clusters of interest. They used two questionnaires, a *basic* questionnaire that captured a set of essential data on blogger location, gender, anonymity, and estimated age, and an *extended* questionnaire that asked for researchers to indicate when bloggers wrote about certain categories of issues such as news, politics, religion, and personal life (both questionnaires are included in Appendix A). In addition to our standard issue questions, researchers were able to add their

own issues to the questionnaire on the fly. This was not expected to produce reliable results, but simply to identify emerging or unexpected issues. The results from the basic questionnaire (figs. 2-5) were reviewed previously. Bar charts for the standard issue results (figs. 6-9) reveal some patterns:



Public Affairs topics (fig. 6):

- Public affairs are discussed broadly in the *secular/reformist* pole, with more attention to international news, the economy and names of particular political leaders (mentioned by name) in *refPol*, and significantly more attention to women's right issues in *secPat*.
- The *conPol* cluster of the *conservative* pole is intensely focused on public affairs, particularly domestic policy and certain leaders (mentioned by name). There is also discussion of women's rights issues, although from a conservative point of view. The *12er* and *relYth* clusters show comparatively much less attention to public affairs.
- The *poetry* and *mixNet* poles show very little attention to public affairs.

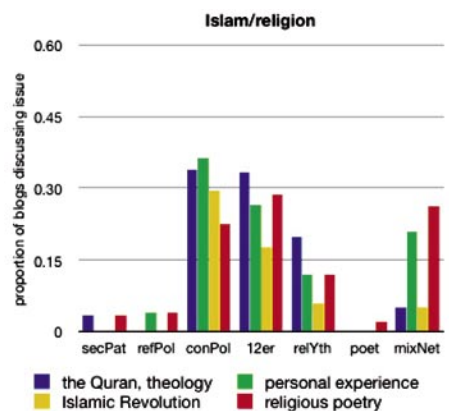


fig. 7

Islam/religion (fig. 7):

- The *conservative* pole shows an intense focus on religion, particularly the *12er* cluster. Theology and the Quran are particularly important here.
- The *secular/reformist* pole shows little concern with religion, as is true also of the *poetry* pole. The *mixNet* pole contains religious posts, but less to do with the Quran and more to do with personal experience and poetry.

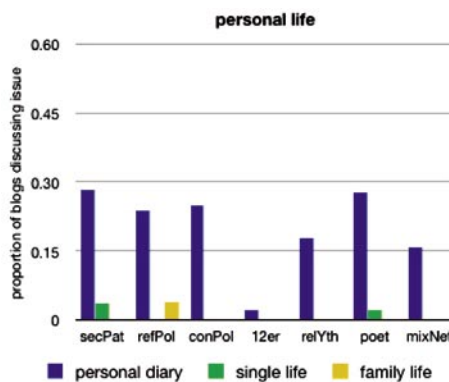


fig. 8

Personal life (fig. 8):

- A minority of bloggers use the medium to make 'personal diary' posts across the board, but with greater frequency in the *relYth* and *poet* poles.
- Strikingly, very few bloggers were found writing about single life (dating, relationships) and family life (marriage, children). This runs counter to descriptions of the Iranian blogosphere that emphasize dating behavior of rebellious youth. Presumably such activity among young singles uses more private online modes of communication.⁷

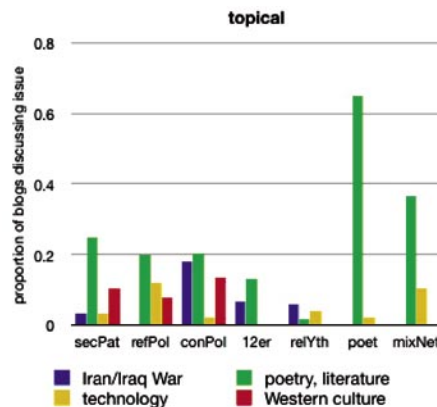


fig. 9

Specific topics (fig. 9):

- Posts about the Iran/Iraq War were noted in all clusters of the *conservative/religious* pole, and not much elsewhere.
- Poetry and literature are, unsurprisingly, dominant topics in the *poetry* pole, but were also found to a lesser degree in other regions.
- Technology is not a major topic, but is seen more in *relYth* than elsewhere.
- Western culture and values are not major topics of discussion, but such discussion as there is occurs in the *conPol* cluster of the conservatives, and in the *secular/reformist* pole.

In addition to the standard topics, the researchers identified 130 other issues. Those occurring more frequently in the conservative pole included: quotations from the speeches of leaders, criticism of the media, admiration of Ayatollah Khamenei, and Ahmadinejad's visit to Columbia University. Topics found more in the *secular/reformist* pole included journalism, the crackdown on university students, and political prisoners. Interestingly, the *conPol* cluster contained criticism of Ahmadinejad's government, as well as analysis of major problems they face, like Iran's poor economic condition, gas prices and rationing, and the nuclear issue. There is a range of opinion and analysis in the *conPol* cluster, including both support and criticism of Ahmadinejad's leadership. This was a surprise to find, initially. However, more qualitative work with the researchers helped make sense of it.

In addition to the topic coding, researchers working on the extended questionnaire were asked to write a short, one-to-three sentence description of the blog. These were illuminative (Appendix E for more descriptions). Descriptions of blogs in the *secular/reformist* pole were often what one might expect, for example:

- (*secPat*) "Blogger surveys women's freedom, or lack thereof, in comparison to men's rights in Iran. She criticizes capital punishment in Iran."
- (*secPat*) "Blogger believes that Iran lacks basic freedoms and democracy and posts articles, poems, and pictures to reflect his beliefs."
- (*refPol*) "This blog satirically addresses student issues like drug addiction, imprisonment, lack of political freedom, and general political issues."
- (*refPol*) "The blog is published by one of Iran's most popular political parties, 'Jebbeh

Mosharekat." Students and intellectuals are the party's base of support. In this site people can read and discuss the mistakes and mismanagements of the current administration."

Descriptions of blogs in the *conPol* cluster of the conservative pole were often as well what you might expect:

- (*conPol*) "The blog is devoted to supporting the regime, its founder (Khomeini), and its current leadership, and their government policies and record."
- (*conPol*) "This blog reviews political events and news and has a general disdain for liberals in Iran and admires the extremists like Ahmadinejad."
- (*conPol*) "This blog is devoted to supporting the government and its leadership as the blogger believes they represent God and Shiite figures."
- (*conPol*) "This blog analyzes speeches and political activities of Iranian liberals from a right-wing extremist standpoint. Additionally, the blogger supports Islamic rules and regulations in Iran."

However, many of the descriptions sound like those in *secPat*:

- (*conPol*) "The blog directly analyzes the rampant inflation that is wreaking havoc on Iran's middle class and blue collar class of the society, leading women and young girls to prostitution. This site also talks about other issues and problems caused by the regime, using slang and indirect logic."
- (*conPol*) "This is an intellectual site analyzing important events, activities, and mistakes of the Iranian regime in detail using persuasive logic."
- (*conPol*) "Blog denounces the regime's corruption and lack of respect for the law of the land. Blogger also discusses the student movement and criticizes some media outlets."
- (*conPol*) "This blog talks about the regime's mistakes and problems and criticizes the regime and the leaders by indirectly questioning the veracity of government facts and statistics."

If randomly sorted together with descriptions of blogs in the *secular/reformist* pole, one would assume they belonged there. Some other descriptions help understand the nature of this criticism:

- (conPol) *“This blog both criticizes and admires Ahmadinejad in different instances.”*
- (conPol) *“This blog admires Islam and Islamic leaders like Ayatollah Khamenei and Ahmadinejad. Concurrently, the blog criticizes the regime on women issues, some of its leaders, Israel, and U.S policies in the region.”*
- (conPol) *“This blog supports the Ahmadinejad regime while criticizing the court system and the seemingly arbitrary nature of political arrests.”*

Conservative political bloggers make distinctions between various institutions, people, and policies of the Iranian government, and will praise some and criticize others. Support for figures like Ahmadinejad can be partial, and criticism can be from a ‘friendly’ perspective, much the way an American politician can face criticism by member of his or her own party. The discourse in *conPol*, the conservative politics cluster, looks like ‘democratic’ discourse, full of invective, opinion, and critique of friends and foes alike, rather than parroting of a party line. Descriptions of blogs in the other two conservative clusters were in general less surprising:

- (12er) *“All about the memorization of the Quran.”*
- (12er) *“The author of this blog explicitly states in his introduction that this blog is not intending to get involved in the partisan scene of politics and that it is only an attempt to reflect feelings about the 12th imam of Shiaas who will one day appear in the world.”*
- (relYth) *“Devoted to religion, pictures of Khamenei and Ahmadinejad.”*
- (relYth) *“The writer is writing against reformists and criticizing them, while defending 9th president, namely Ahmadinejad.”*

However, even these clusters had their surprises:

- (12er) *“This blog mostly entails religious poems about Islam, Shiite figures, and the martyrs of Iran-Iraq war. Interestingly enough, the blog poetically criticizes the mismanagements and of some of the regime’s leadership without specifically mentioning any names.”*
- (relYth) *“Religious but also seemingly liberal and has interests in the supernatural.”*

The work of the researchers, in addition to time a few of them spent with the authors (us) looking at and translating blogs, helps make sense of the interests and ideologies which structure the Iranian blogosphere. But they also raise a host of challenges, about how it is that conservative supporters of the Islamic Republic freely criticize their president and governing institutions, how a young religious blogger in a peer group of zealots can appear liberal on some issues, and in general, how the supporters of a system widely considered so *illiberal* can participate in discourse that appears to be more or less what John Stuart Mill described as the foundation of liberal society. We will return to this matter.

Analysis 2: Term and List Frequencies

A second way we approached understanding the different modes of discourse across the map was with automated text frequency analysis. Here, rather than human researchers, we used computers to mine the full text of blog posts. We began by assembling lists of key terms in Persian that we thought would indicate particular topics of discussion. After assembling several dozen terms, a better idea came up. Wikipedia has an extensive collection of articles on Persian topics, in English with Persian translations of the key term. These terms include names of famous events, locations, organizations, and a great many people, from ancient historical figures to recently executed prisoners. There are also numerous clerics, politicians, singers, movie stars, poets, scientists, journalists, academics, and football (soccer) players. Wikipedia represented a fantastic resource which we could use to mine the Iranian blogosphere for cultural and political understanding.

We identified over 3,000 English language Wikipedia articles on Iranian related topics of interest to us, of which approximately 1,700 had Persian-language translation of the term (article name) that we could extract algorithmically. Furthermore, these terms were organized into large, overlapping sets of lists, such as ‘Iranian Politicians,’ which could include members of the list ‘Iranian Ayatollahs’ as well as members of “Women members of the Majlis.” Using the extracted Persian terms, we scanned the full text of blog posts harvested from the Iranian blogosphere over a period of about seven months (beginning July 2007), and found all occurrences of the terms. We then calculated the relative frequencies of “hits” across our target clusters. The results reveal which individual terms and which lists were more frequently cited by particular clusters. Since the source of the terms was Wikipedia, we could open the articles and read about these differentially cited things. For both individual

terms and for lists some very interesting patterns emerged. (Appendix D: term and list frequency analyses).

First, in general for both terms and lists, there are things that are of interest more to one cluster than to others. For example, the *12ers* preferentially wrote the Persian text for:

- *al-Mahdi*, the 12th Imam (term);
- *Allamah al-Majlisi*, a major historical Twelver cleric (term);
- *Shaykh Tusi*, a historical Twelver scholar (term);
- *'Ajam*, a common Arab term for Persians and other non-Arabs (term).

There are a number of terms that the *conPol* cluster uses more than any others, including:

- *Palestine* (term);
- *Mohsen Rezaee*, a powerful conservative official, linked to the 1994 AMIA bombing in Argentina (term);
- *Hassan Rowhani*, a major politician and cleric, and nuclear negotiator (term);
- *Hojjatieh*, a secretive, radical anti-Bahai religious group, which Ahmadinejad is accused of sympathizing with (term);
- Iranian religious leaders (list);
- Iranian military personnel of the Iran-Iraq War (list);

Poets and *mixNet* bloggers, respectively, preferred the terms (Persian text) for:

- *Baba Taher*, a major 11th Century Persian Poet (*poets*);
- *Behistun Inscription*, an ancient stone inscription, which is central to a famous mythical Persian love story (*poets*);
- *Shahab Hosseini*, a film and TV actor (*mixNet*);
- *Mahasti*, an expat pop singer who died in 2007 (*mixNet*);

More commonly, however, certain terms or lists will get more hits not from individual clusters but from pairs of them. And there are very interesting patterns in which pairs of clusters use particular terms and listed aggregations. Significantly, the most common pairing is the *refPol* cluster and *conPol*, which preferentially write about such things as:

- *Haleh Esfandiari*, Iranian-American academic, held by Iran, 2007 (term);
- *Amir Kabir*, historical (1807-1852) reformist (term);
- *Gholamhossein Karbaschi*, Rafsanjani ally, imprisoned by hard-liners (term);
- *Akbar Hashemi Rafsanjani*, pragmatic conservative former president (term);
- *Special Clerical Court*, Iran's "Star Chamber" court for trying clerics (term);
- Iranian clerics (list);
- Iranian law (list);
- Iranian political organizations (list);
- Iranian women in politics (list);
- Iranian Majlis representatives (list).

Here, and with many more terms and lists from the analysis, we see that these two clusters focus on a discourse of *power politics*, from opposites sides of the ideological divide. Not all political terms and lists are preferred by this pairing, some are preferred by another common pairing, *secPat* and *refPol*:

- *Prison 59*, a Revolutionary Guard prison (term);
- *Evin Prison*, a prison in Tehran where political prisoners are kept (term);
- *Saeed Mortazavi*, a hardline judge who closed reformist papers and is implicated in the death of Canadian journalist Zahra Kazemi in 2003 (term);
- Iranian Prisoners and detainees (list);
- Iranian secularists (list);
- Persian Jews (list);
- Iranian bloggers (list);
- Iranian women's rights activists (list).

Here we see the kinds of politics that secularists and expatriates like to write about, but that their conservative opponents would rather not. A final common pairing has little to do with politics, but rather is cultural and entertainment-oriented. The *refPol* cluster (most all of whom are in Iran), shares a number of interests with bloggers in the *mixNet*:

- *Zoroaster*, prophet for Zoroastrians and Baha'i (term);
- *Shahab Hosseini*, film and TV actor (term);
- *Siavash Shams*, expatriate pop singer (term);
- *Afshin*, pop singer (term);
- Olympic footballers of Iran (list);
- Iranian television actors (list);
- Persian classical musicians (list);

The patterns we see in the text analysis results contribute to the understanding gained from the human blog coding. We see large ideological formations, one more secular and reformist, the other more religious and conservative, each with subgroups (*refPol* and *conPol*) that are particularly attentive to the contentious politics of power. We see the *secular/reformist* clusters concerned about things the conservatives are less interested in talking about, like political prisons and conservative officials linked to terrorism. And we see a cultural affinity, built around sports and popular entertainment, between part of the *secular/reformist* side concentrated in Iran (*refPol*), and broader, unpoliticized members of the *mixNet*.

Analysis 3: Outlink Analysis

Our third analysis aims at understanding how various parts of the Iranian blogosphere relate to the broader ecology of online media around them. Bloggers link to a great many sites other than blogs. How do the various clusters of bloggers focus collective attention on these other Internet resources? We looked at link densities (numbers of links divided by numbers of possible links) between our *attentive clusters* and clustered groups of outlinks, or *outlink bundles*. In other words, we looked at patterns in what bloggers from the various parts of the Iranian blogosphere link to, specifically the patterns in link density between clusters of bloggers and bundles of outlinks. These outlinks can include blogs, but also include news sites, political party sites, Internet portals, NGOs, YouTube links, and anything else that has a URL. We visualize these patterns using a two-mode network diagram (fig. 10) in which particular *attentive clusters* and particular *outlink bundles* are joined by the lines representing the density of links between them. The denser the connections are, the thicker the line.

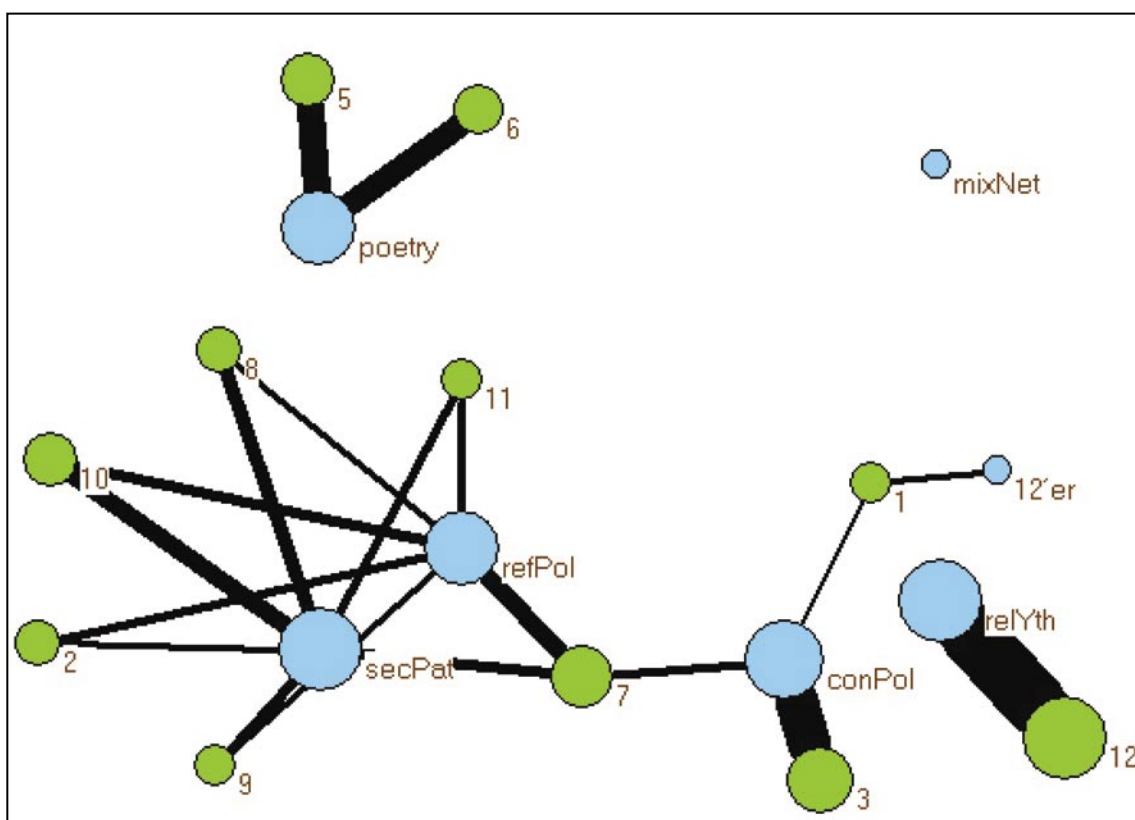


fig. 10

The two-mode network reveals several interesting patterns:

- *conPol* and *12er* frequently link to a bundle (1) featuring news and online information sites within Iran, while *secPat* and *refPol* link to a different bundle (10) of news and online information sites popular with expatriates, and which includes popular Western resources like YouTube and Wikipedia. Additionally, there are several other bundles of particular interest only to *refPol* and *secPat* (2, 8, 9, 11).
- There is one bundle of mainstream media sites (7) popular with *secPat*, *refPol*, and also *conPol*, which contains major Iranian news sources like ISNA, and farsnews.com, but also the BBC Online. This pattern is common in the US blogosphere also, where there is a set of news and public affairs links popular with the politically attentive on both side of the ideological divide.
- The *poet* cluster links mainly to poetry blogs, and a handful of websites about poetry (5, 6).
- The *mixNet* does not link coherently to any particular outlink bundles, which is expected given that is it comprised of an unfocussed field of bloggers.
- The *relYth* cluster links overwhelmingly to an outlink bundle (12) focused on religion, and unexpectedly, technology. Some of these sites mix religion and technology, such as providing ways to download the Quran to cell phones and track calls to prayer online. There is also what looks like a religious-themed e-commerce portal, and an online ad agency. Some of these sites also focus on religious inspiration. The Supreme Leader's official website is in this bundle.

This analysis confirmed the overall patterns revealed in the other analyses. The *secular/reformist* ideological pole has a lot of common resources, and there are broad similarities in linking preferences across it. By contrast, the religious/conservative pole is less unified in its preferences, and it features a single cluster (*conPol*) attentive to news and public affairs and linking to some of the same information sources as the *secular/reformist* pole, though it also has a bundle (3) on which it alone focuses links. *mixNet* lives up to its name, and the poets show themselves once again to have a single-minded focus on poetry.

YouTube Clips

As part of the outlink analysis, we also looked at the most popular YouTube videos in the Iranian blogosphere. Below we have translated two of the most highly cited videos (as of February 2008), which are interesting for their political undertones (a list and brief description of the other top clips can be found in Appendix C):

1. <http://www.youtube.com/watch?v=6al6Z6hF48E>: "Kiosk: Love for Speed." A music video from the popular group Kiosk. The first verse (as translated on YouTube):

The power of love or love of power
Modernism versus tradition forever

Living in the evil axis
Speed freaks in jalopy taxis

Why feel any pain and suffer
When pills and powders' all on offer

Nothing for lunch or dinner to make
Then let them eat Yellow Cake

Multiple choice elections left to chance
Holy matrimony by loan and finance

Scraped up the very last dime
Sent it straight to Palestine

Guaranteed success or money back
Underground music or cultural attack

No need for cardiologists
Just facelifts by cosmetologists

Immoral zealots, fanatic factions
Chinese-style economic expansions

Religious democratic droppings
Pizza with Ghormeh Sabzi toppings

2. <http://www.youtube.com/watch?v=-eYAnT-CW3A>: "Akhoond's (Cleric) Comment on Girls." Translation of content:

...But these girls that I see in parks and other public places, wearing tight coats and skirts, going to places like universities... they (anonymous pronoun) take these girls to Haraat road and right there they

say prayers for them (an odd way of saying that they rape and kill these girls) and throw their dead bodies in the river. Whenever you lose your daughters, go there and find them. They take girls there all the time, these days.

At times you see three taxis fighting to pick up a girl from the street. One of them would say, "It's my turn, I stopped first." The other one would disagree and this way they get into a fight over a girl (female passenger). And yet they don't stop for a poor cleric who is waiting for a taxi to come. Man, I wish we were girls, too! (the crowd laughs). (in a low voice) Then, we would have no problem getting picked up by taxi drivers.

One day, a taxi driver stops for a cleric who was waiting for a taxi. A few meters later, the taxi stops again and asks the cleric to leave the taxi. When the cleric asks about the reason of the taxi driver's decision, the driver says, "Oh, cause you were standing in the shadow. I wanted to bring you somewhere where you get to stand under the sun!" That is how things are, these days!

They take the girls. Those men who let their girls (daughters) appear in public places the way they do have no morality. These girls with white clothes, with inappropriate clothes walking around... You don't even know how badly-veiled-women have increased in the society. They take these women and take them to Darvazeh Ghaar on motorcycles. If your motorcycle is lost, go look for it there. If your shoes are lost, go to Seyyed Esmail. One of my students lost his shoes and went to Seyyed Esmail, saw his shoes, didn't tell the seller that they were his. First, he wore them and then he told the seller that they were stolen from him. One of my acquaintances, too, lost his motorcycle and went to Darvarzeh Ghaar, where he paid 75 Toman and got his motorcycle back. But when you lose your girls, their address is Haraat Road, where they throw them along with the car. I am not kidding. This is serious. Now tell me. What is the address of the girls who get lose: (the crowd) Haraat!

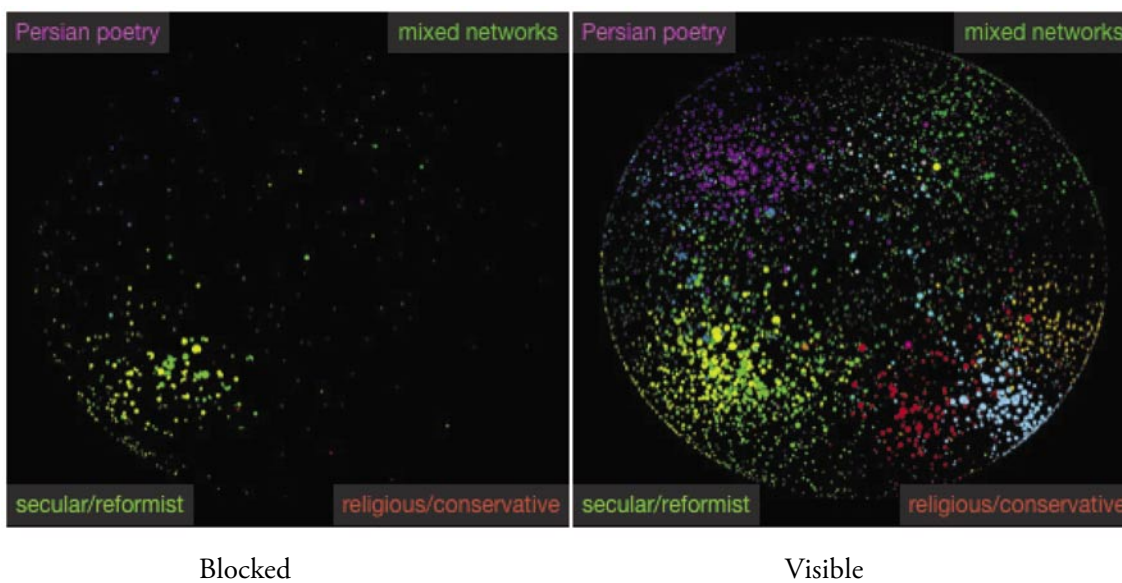


fig. 11

FILTERING AND BLOCKING OF PERSIAN BLOGS

While we cannot know whether the Iranian blogosphere would feature additional contentious political discourse if it were not for government repression of bloggers, there is clearly a great deal of it now. A key question then becomes how much of this discourse is visible to Iranians inside the country. To a reader in Tabriz, it may matter little whether the political blog post they read was authored in Tehran or Los Angeles, and in fact they would very often not be able to tell. What matters to that reader is whether the blog is visible at all, or blocked by the government. The OpenNet Initiative (ONI) collects data on which websites are blocked in nations that filter citizen access to the Internet. Figure 11 presents ONI data on blocking of Iranian blogs. On the left we see blogs on the network map that are blocked, and not visible to Iranians. On the right we see what part of the network is visible.

There are no metrics for defining how much blocking is a lot. From the standpoint of basic principles of free speech and open access to information, any blocking is too much. Blocking by Iranian authorities is clearly focused on blogs in the *secular/reformist* pole, though there are blogs blocked in the other poles as well, including the *religious/conservative* one. But a view of the maps, and the percentages (table 4) shows that a minority of blogs are blocked. Furthermore, the large majority of *secular/reformist* pole blogs are visible to Iranians, including 79% of *secPat* and 89% of *refPol*, which is especially interesting given the latter's focus on political affairs.

| cluster | %blocked | %visible | visible | blocked | total |
|---------|----------|----------|---------|---------|-------|
| secPat | 21% | 79% | 650 | 178 | 828 |
| refPol | 11% | 89% | 663 | 86 | 749 |
| conPol | 2% | 98% | 252 | 6 | 258 |
| 12'er | 1% | 99% | 301 | 3 | 304 |
| relYth | 0% | 100% | 297 | 0 | 297 |
| poet | 2% | 98% | 312 | 6 | 318 |
| mixNet | 8% | 92% | 1667 | 139 | 1806 |

Table 4

ONI also sent a Persian researcher into the blocked section of the blogosphere to understand why blogs outside the *secular/reformist* pole might be blocked. The researcher found discussion of women's rights, temporary marriages, erotic poetry, offensive language, racism, and open source code. It was impossible to see why several of the blogs might have been blocked, and the bloggers themselves were

sometimes aware and also confused about why their blogs were blocked. Below are some examples:

The researcher was asked the following question: "This blog is blocked by the government. Based on the blogger and their writing, why do you think they would be blocked?"

In the *secPat* cluster:

- *The blogger is a law student. Her blog explicitly addresses feminist themes.*
- *This is mostly an innocuous personal blog. In one post, however, the writer describes her new workplace favorably because 'men and women' are not separated and are able to interact together in a positive atmosphere. She also praises the management of her new office for not bothering women and not questioning them about hijab norms.*
- *Written in an affectionate, familiar tone, the blog offers romantic/relationship advice to readers deemed offensive by the regime.*

In the *Poets* cluster:

- *...although his poetry and criticism are generally apolitical, some of his verses contain obscene language ("shit," "fuck").*
- *The blogger posts mostly verse, some by notable Iranian poets and some by him. The themes of most of these are typically Iranian: "eshgh" (love), "mey" (wine), etc., etc. Others hint more directly at the erotic.*

In the *conPol* cluster:

- *The blog is devoted to media criticism, especially film, television, and video games...Most posts dissect western media, the Harry Potter series for example, through an "anti-Zionist," anti-imperialist prism...(a recent post) is devoted to condemning Rupert Murdoch's "Zionist" media empire. ... he sounds off-message because the regime makes it a point not to condemn world Jewry directly. The blogger also takes a Persian ultranationalist take on pan-Turkist and pan-Arabist movements, claiming these movements are Zionist in origin and designed to divide and undermine the Muslim Umma.*

And in the *Mixed Networks* pole:

- *The blogger is a programmer. His posts mostly consist of Javascript tools and other web and blog related widgets and tools. In this case, I suspect the regime is trying to restrict access to open source code.*

- *The blogger—a devoutly religious young man—is singularly devoted to advancing the cause of traditional temporary marriages (“sigeh”). The author believes that this institution is currently misunderstood by Iranian society as a way to legitimate temporary sexual relationships, when really it is a well-established, responsible Islamic tradition that helps those who are unprepared for permanent marriages to reach out to the opposite sex and fulfill their healthy sexual needs.”*

ONI is continuing to analyze the data on blocking in the Iranian blogosphere, and we here make no claims about the processes or intent behind current regime efforts. We note only our surprise that such a large proportion of that part of the blogosphere, which the regime must consider oppositional, is in fact visible within Iran. The implication is that despite periodic persecution of bloggers, the Iranian blogosphere remains a viable arena of political contestation and forum for viewpoints challenging the ruling ideology of the Islamic Republic. In this sense, it remains a robust platform for democratic discourse for a society with severely curtailed modes of practical political participation.

POLITICS AND MEDIA IN IRAN

The Iranian blogosphere mimics the ‘hybrid’ Iranian political system, and also stands in stark contrast to the traditional Iranian media environment. The Iranian political system is noted for its high levels of elite contestation and fragmentation. Keshavarzian has described Iran’s political system as ‘factionalized authoritarianism,’ where the system of Islamic Governance that has emerged in Iran includes elements of democracy such as elections for representative institutions for the Parliament and the Presidency. However, those elements of democracy and mass participation are subsumed under the rule of clerics who determine who is permitted to run for office and otherwise limit the level of political debate. Clerical rule is established in the ultimate leadership of the Supreme Leader and the Guardian Council, who are seen to “protect the will of God.”⁸ This ‘dual authority’ between religious and representative political threads allow for competing interpretations of what the Islamic government should look like, how it should or should not change, and what the proper role of Islam is in the government—interpretations that are often at odds with one another.

Many theorists argue that elite fragmentation and divisions between soft-liners and hard-liners is significant in an authoritarian regime, since it is a key indicator of a future political transition.⁹ However, some argue that the elite fragmentation in Iran has actually enabled the persistence of the regime due to its hybrid nature.¹⁰ We do not seek to answer this debate, but note that elite contestation is present in the Iranian blogosphere. If struggle among elites is bad for authoritarian systems of rule and good for democratic ones, current theory is challenged by Iran’s peculiar hybrid political system, which incorporates elements of both. Considering the current consolidation of authority by a newer generation of conservative (and ideologically fervent) Islamist politicians on the one hand, and the growing online presence of a newer generation of Iranian citizens on the other, we can re-conceive the question of Iran’s political stability partly in terms of Benkler’s analysis of competing architectures of the public sphere. Which mode of public discourse will ultimately be more effective in shaping public opinion, a distributed online form of peer production or a centralized mass media system?

The emergence of online media, including blogs, news sites, citizen journalism, and online radio stands in stark contrast to the censored and largely state controlled mainstream media in Iran. Out of 169 countries ranked, Reporters Without Borders placed Iran nearly last, at 166, in the 2007 World Press Freedom Index. Iran ranked worse than authoritarian regimes such as Burma and Cuba, and only better than Turkmenistan, North Korea, and Eritrea.¹¹ Among the mainstream media, newspapers are a more trusted source of news than radio or TV by Iranians,¹² but radio and in particular TV are highly regulated and part of the state apparatus. This began to change when conservatives in the judiciary began to shut down reformist papers, and has gradually worsened, with the closure of many papers and their online sites. The struggle over the press under Khatami’s presidency demonstrates the push and pull between dual sources of authority in the Iranian government. But if, thanks to satellite TV and a series of short-lived newspapers, the government fails to maintain a complete monopoly on the hub-and-spoke mass media architecture of public communication, then we must also note that conservative, pro-regime forces have by no means ceded the new media landscape to secular or reform-minded ones. Religious conservatives have a very strong presence in the Iranian blogosphere, as do many active political actors on various sides of Iran’s fractured elite.

It is for instance considered somewhat fashionable among Iranian politicians to have their own websites, which often include news and information they have access to because of their positions in government, as well as commentary.

The Iranian blogosphere reflects the political struggle and elite contestation taking place in Iran. Blogs have also allowed expatriate bloggers to engage in the political debate about Iran, although more often with each other and like-minded individuals in Iran, than in exchanges with political leaders in Iran. Filtering by the government limits the ability of blogs to be a truly democratic space for debate, as does the arrest, intimidation, and forced exile of dissidents and reformist politicians for their online activities. Not surprisingly, the most filtering takes place in the expatriate cluster.

In the blogosphere, Iranian politicians and government officials openly criticize Ahmadinejad, other branches of government, various government agencies and news sources such as the IRIN and IRIB, and engage in general factional fighting. The extent to which a given politician can criticize others, and how far they can go in that criticism, is often a reflection of their legitimacy within the system based on factors such as ties to senior officials or their role in the revolution. Like any political system, reformists, conservatives, and other factions rise and fall in influence over time. For Keshavarzian, this political contestation among elites is unique to Iran's brand of authoritarianism, and is created by the highly fragmented state that generates and nourishes elite factionalism and public contestation, but allows hard-liners to monitor and manage those debates to ensure that conflicts exist but do not go so far as to lead to the break down of the system or a transition to democracy.¹³ Recent press reports have argued that Ahmadinejad is falling from favor in the eyes of key conservative power bases, not least of which the Supreme Leader.¹⁴ Indeed, criticism of Ahmadinejad occurs in the *conPol* cluster of the blogosphere, though it is much like the criticism an American president might receive from his own party, urging a better job be done to make the team look good and prevent criticism by the opposition.

DISCUSSION AND CONCLUSION

Blogs and Democracy, in Iran or Anywhere

*"The outstanding problem of the Public is discovery and identification of itself"*¹⁵

*"A democracy is more than a form of government; it is primarily a mode of associated living, of conjoint communicated experience"*¹⁶

—John Dewey

To Dewey, the most pressing problem of the public was how to identify itself to itself, and the answer lay in large part with modes of public communication, principally newspapers and emerging electronic mass media. Dewey was a pragmatist, not an abstract moralist, and he had concrete concerns about how a complex society communicates with itself, how the needs of its constituent parts are generally recognized, how its values and priorities are contested and synchronized, in short, how a society knows 'who' it is, what itches, and which of these itches it ought to scratch. To him, the mechanisms of self-government, including elections and representative institutions, are necessary not least because they promote a kind of public spirit, which must be nurtured by robust public communications media. The essence of democracy is not majority rule, as Dewey liked to point out, but in how that majority is made. This constitutes a practical process of social cognition. Democracy requires voting booths, yes, but it also needs a culture of robust free expression with a tolerance for disagreement and dissent, undergirded by a general acceptance of certain moral fundamentals, including principles of fairness and equality, and a sense of shared citizenship and responsibility.

Questions about how 'the public,' and various individual 'publics,' are constituted online lie at the heart of contemporary discourse on network media and the public sphere. What is a *public*? What brings people together online? What kinds of public discourse do networked media support? How does online discourse relate to older modes practiced through mass media, political organizations, and in face-to-face conversation among friends, family, and social acquaintances? Observers ranging from utopian to dystopian debate whether online network media unite or divide, mobilize or disengage, knit a more powerful public sphere or shatter the old one into, in Todd Gitlin's phrase, myriad *public sphericules*.¹⁷ A key idea explicitly invoked or implicitly accepted in nearly all of this discussion is that people have the opportunity online to seek and find information, people, and events that interest them, and that powerful social dynamics arise from the exercise of these preferences by millions of independent users of the Internet. Beyond the increased diversity of information sources and options for interaction with them, recent trends in Internet technologies and associated cultural practices are shaping a qualitatively different sort of medi-

ated public sphere in which users contribute to as well as consume public discourse.

Communications infrastructure forms the nervous system of the social organism, to extend a metaphor common to Durkheim and Dewey, and the properties of that medium have consequences for social organization. Yochai Benkler sets out a detailed analysis of how Internet technologies are transforming key social infrastructures, including those supporting the 'public sphere,' which he defines as, "A particular set of social practices that members of a society use to communicate about matters they understand to be of public concern and that potentially require collective action or recognition."¹⁸ For Benkler, technology, including blogs, has created a new model of media and public communication that is inherently more democratic, inclusive, and interactive than old methods of mass media production and control. While the old media production model was problematic even for liberal democracies, since the means of production and distribution were easily captured by capital and/or state authority, it was especially powerful in the hands of authoritarian regimes, which easily controlled media outlets and points of production. Benkler proposes that Internet technologies undermine this authority, even if regimes are able to take countermeasures such as Internet filtering and tracking of authors.¹⁹

The benefit of a networked communications model is that it changes the architecture by allowing multi-directional information flows, and reduces the costs of becoming a speaker.²⁰ Individuals can become active creators and producers of politically relevant information and they can participate easily. For Benkler, the democratizing effects of the Internet spring from this. The new, vastly distributed, and participative form of communications evident in the blogosphere and other online participatory media create a self-organizing mesh of public communications, in distinction to the old hub-and-spoke architecture of mass media.

Further, in contemporary liberal democracies with the benefit of networked public spheres, there are no obvious points of control or influence by media owners or the state. This inverts the old mass media model so that what is produced is driven by what users find interesting, instead of the lowest common denominator—that which many find mildly interesting, can reach the largest audience, and maximize advertising profit.²¹ In authoritarian regimes, networked communications can allow participants to get around state control. As an example, Radio B92 in Serbia simply broadcast through the Internet after the government attempted to shut it down. In Iran, satellite

TV, Internet based radio stations, cell phones, and other Internet based tools are difficult if not impossible for the regime to control. Costs are generally high for regimes that limit access and connectivity. The Internet will not lead automatically to liberal, open public spheres in authoritarian regimes, but it will make it harder to control and more costly for authoritarian states to do so.²²

It may be that in a liberal democracy, blogs are a better liberal public sphere platform than most other Internet-based communication tools. Benkler argues that the following are required for an ideal liberal public sphere: universal intake (everyone should be able to be heard and participate), filtering for potential political relevance (filter out what is most important for political action), filtering for accreditation (essentially filtering for credibility, usually through professional journalists, bloggers or other institutions), synthesis of 'public opinion' into something actionable in the political sphere, and independence from government control.²³ Blogs meet each of these requirements.

Even in a restrictive media environment, blogs can provide a more open political discussion space than is otherwise allowed in authoritarian regimes. However, whether a particular blogosphere comprises a liberal public sphere is a matter of degree and definition. The Iranian blogosphere, for example, falls short of the ideal since the government does not allow universal intake and it is not free of government control. Bloggers are harassed and arrested by the regime, and some blogs are filtered, although as the ONI findings cited earlier in this paper show, the regime is blocking fewer blogs than one might expect.

It is often said that since the government began cracking down on bloggers, the important online discourse about politics has moved off blogs and into chat rooms. In one sense this might very well be true, but without empirical data spanning the period there is no way to assess even the raw factual basis of the claim. More important though, and key to the larger relevance of this study to the question of democracy, is the implication of the word 'public.' Very repressive societies have hidden corners where people's true thoughts and opinions can emerge, even if it is just in telling jokes over vodka around the kitchen table. Non-public networks of dissident communications have a history that long predates the Internet. In myriad examples stretching from antiquity through Committees of Correspondence in the American Colonies and Samizdat in the Soviet Bloc, subversive ideas have traveled in underground networks, and not always motivated by democratic objectives. In addition to chat rooms, contemporary Iran has its own offline

modes of sharing information and opinion anonymously and underground, perhaps the most distinctive of which is Tehran's 'taxi culture' in which strangers share cab rides and trade underground news with each other, along with political rumors and scandalous hearsay (not so different than the blogosphere!)

But it is fundamental to democracy that there exist *public* trading zones of ideas and opinions that are available to any member of the polity on a more or less equal basis, whether they choose to participate or not. The forum matters, and blogs have a kind of quality as a public medium that chat rooms and other more ephemeral modes of online communication do not. Even when the latter are in principle openly available, their persistent visibility to a universal audience is vanishingly negligible. The visibility of blogs is limited by the same kinds of things that limit citizens' exposure to public information the world over, matters of economic class, education, and government sanction, but, as we see in the U.S. and elsewhere, blogs have a robust carrying capacity as an online medium of democratic communication. They are very good for representing minority points of view, supporting the flow of information among particular issue publics, coordinating collective action, and channeling attention to more traditional news and media sources, as well as NGOs and advocacy campaigns. Because they persist, and because they hyperlink to other things, blogs constitute a public network medium of enormous potential importance. What happens in chat rooms, like what happens in taxi cabs, is important, as a barometer of opinions and values. But what happens in blogs is important at another level. If blogs are not mass media, the blogosphere as a whole does nevertheless constitute a mass public media institution of increasing global importance.

Our social network mapping and content analysis demonstrates a more systematic method for analyzing blogs than previous studies of the Iranian blogosphere. Our research reveals that the Persian blogosphere is a large discourse network, incredibly rich in the types of discussions taking place and the different groups of Iranians who are blogging. Early conventional wisdom held that bloggers were all young democrats critical of the regime, but we found conversations including politics, human rights, poetry, religion, and pop culture. Given the repressive media environment and high profile arrests and harassment of bloggers, one might not expect to find much political contestation taking place in the Iranian blogosphere. And yet oppositional discourse is robust, particularly between the two politically focused clusters on either side of the ideological

divide between *secular/reformist* and *conservative/religious* poles. Blocking of blogs by the government, particularly within the *secular/reformist* pole, is less pervasive than we had assumed.

It is uncertain whether the visibility of 80-90% of secular/reformist blogs inside Iran is a function of limits to the government's intent to block oppositional discourse, or its ability. Given the repressive media environment in Iran today, blogs represent the most open public communications platform for political discourse. The peer-to-peer architecture of the blogosphere is more resistant to capture or control by the state than the older, hub and spoke architecture of the mass media model, and if Yochai Benkler's theory about the networked public sphere is correct in relation to blogs, then the most salient political and social issues for Iranians will find expression and some manner of synthesis in the Iranian blogosphere. Future research could address whether or not this is true. But in any case, the question at hand is not whether the Iranian blogosphere provides a Samizdat to the regime's Politburo, but whether the new infrastructure of the social nervous system, which is changing politics in the US and around the world, will also change politics in Iran, and perhaps move its hybrid authoritarian/democratic system in a direction that is more liberal in the sense of modes of public discourse, if not necessarily in a direction that is more liberal in the sense of political ideology.

ENDNOTES

¹ This popular view of the Iranian blogosphere has been supported by sources such as Nasrin Alavi, *We are Iran* (London: Portobello Books, 2005), a collection of translated Iranian blogs, and the NY Times OP-ED which argued that, "Bloggers tend to be young, well educated and not very supportive of President Ahmadinejad, who typically attracts followers from the urban poor." Tom Parker, "Blogging Ahmadinejad in Tehran," *New York Times*, September 30, 2007, Opinion Section.

² We use the term Iranian blogosphere throughout this paper, since that is the more popular description of the universe of bloggers in Iran, even though a more accurate description for the network we analyzed would be 'Persian language blogosphere.' To capture the entire blogosphere of Iran would also require minority languages and English language blogs by Iranians.

³ Ravi Kumar et al., "Trawling the Web for Emerging Cyber-Communities," *WWW/Computer Networks* 31, nos. 11-16 (1999): 1481-1493. See also Ravi Kumar et al., "On the Bursty Evolution of Blogspace," Proceedings of WWW2003, May 20-24, 2003 <<http://www2003.org/cdrom/papers/refereed/p477/p477-kumar/p477-kumar.htm>>; Gary W. Flake et al., "Self-Organization and Identification of Web Communities," *IEEE Computer* 35, no. 3 (2002): 66-71; and Lada Adamic and Natalie Glance, "The Political Blogosphere and the 2004 Election: Divided They Blog," March 1, 2005 <<http://www.blogpulse.com/papers/2005/AdamicGlanceblogwww.pdf>>.

⁴ 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.

⁵ David O. Sears and Jonathan L. Freedman, "Selective exposure to informa-

tion," *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.

⁶ Hamid Tehrani, "Iranian Muslim Bloggers," History News Network. <http://hnn.us/articles/44774.html> (accessed March 20, 2008).

⁷ Pardis Mahdavi, "The Sexual Revolution" (Paper presented at the Hoover Institute's Iran Democracy Project conference "Prospects for Democracy in Iran: Assessing the Regime and Opposition," November 2, 2007, Stanford University).

⁸ Arang Keshavarzian, "Contestation Without Democracy: Elite Fragmentation in Iran," in *Authoritarianism in the Middle East: Regimes and Resistance*, ed. Marsha Pripstein Posusney and Michele Penner Angrist (Boulder: Lynne Rienner Publishers, 2005) 64. Babak Rahimi also notes that, "Since the 1979 Revolution, Iran has institutionalized two distinct spheres of political authority. On the one hand, there is the elected *Majlis* (Parliament) and the presidency. On the other, there is an appointed branch whose main component is the clerical office of *Veleyat-e Faqih*, a deputy claiming to represent the Hidden Mahdi, the Twelfth Imam of the *Shi'i* religion, backed by the Revolutionary Guard Corps." Babak Rahimi, "The Politics of the Internet in Iran" in *Media, Culture and Society in Iran: Living With Globalization and the Islamic State*, ed. Mehdi Semati (London: Routledge, 2008) 44.

⁹ Guillermo O'Donnell and Phillippe Schmitter, *Transitions from Authoritarian Rule: Tentative Conclusions about Uncertain Democracies* (Baltimore: Johns Hopkins University Press, 1986) 19.

¹⁰ Keshavarzian, "Contestation Without Democracy," 65.

¹¹ "Worldwide Press Freedom Index 2007," Reporters Without Borders, available at http://www.rsf.org/article.php3?id_article=24027, (accessed January 14, 2008).

¹² Hossein Shahidi, *Journalism in Iran* (London: Routledge, 2007) 96.

¹³ Keshavarzian, "Contestation Without Democracy," 64.

¹⁴ Nazila Fathi, "Iran Leader Backs Parliament in a Dispute with Ahmadinejad," *New York Times*, January 22, 2008.

¹⁵ John Dewey, *The Collected Works of John Dewey 1882-1953, The Electronic Edition, Volume 2 1925-1953, Essays, The Public and Its Problems*, ed. Jo Ann Boydston, (Carbondale: Southern Illinois University Press, 1980) 351. <http://library.nlx.com.ezp1.harvard.edu/display.cfm?clientID=103106117> (accessed March 21, 2008).

¹⁶ *Ibid.*, Volume 9, 1916, *Democracy and Education*, 93. <http://library.nlx.com.ezp1.harvard.edu/display.cfm?clientID=103105918>.

¹⁷ Todd Gitlin, "Public Sphere or Public Sphericules?," in *Media, Ritual and Identity*, ed. Tamar Liebes and James Curran (London: Routledge, 1998) 175-202.

¹⁸ Yochai Benkler, *The Wealth of Networks: How Social Production Transforms Markets and Freedom* (New Haven: Yale University Press, 2006) 177.

¹⁹ *Ibid.*, 212-213.

²⁰ *Ibid.*

²¹ *Ibid.*, 205.

²² *Ibid.*, 266-271.

²³ *Ibid.*, 180-185.

APPENDIX A: QUESTIONNAIRES

Basic Questionnaire

(QID: 22) Is this URL a blog?

- yes
- no

(QID: 12) Is the blogger located inside or outside of Iran?

- Outside
- Don't Know
- Inside

(QID: 13) Where are they located specifically (country, city, town, region)?

(QID: 28) Does the blogger reveal their name, or write anonymously?

- uses name
- anonymous (including pseudonyms)

(QID: 14) Is the blogger male or female?

- Don't Know
- Female
- Male

(QID: 15) Can you estimate the blogger's age? (select the most appropriate category)

- under 18
- 18-24 (student age)
- 25-35 (young adult)
- 36-60 (adult)
- over 60 (older adult)
- don't know

Extended Questionnaire

(QID: 22) Is this URL a blog?

- yes
- no

(QID: 12) Is the blogger located inside or outside of Iran?

- Outside
- Don't Know
- Inside

(QID: 13) Where are they located specifically (country, city, town, region)?

(QID: 28) Does the blogger reveal their name, or write anonymously?

- uses name
- anonymous (including pseudonyms)

(QID: 14) Is the blogger male or female?

- Don't Know
- Female
- Male

(QID: 15) Can you estimate the blogger's age? (select the most appropriate category)

- under 18
- 18-24 (student age)
- 25-35 (young adult)
- 36-60 (adult)
- over 60 (older adult)
- don't know

(QID: 16) Please read the blog first, and then go back a second time for coding. The goal is to check off all topics that the blogger discusses, in the categories below. If the blog has a lot of posts, concentrate your reading and coding on the five most recent posts. Check all topics that are discussed.

(QID: 23) General Topics: Politics and Public Life

- International news
- Domestic news
- International policy
- Domestic policy

Extended Questionnaire (Continued)

- Economic issues (gas prices, inflation, oil revenues, etc)
- Women's issues (rights, status, hijab, feminism, etc)
- Ethnic minority issues (rights, status, language, regional issues)
- Leaders (officials and politicians mentioned by name)

(QID: 24) **General Topics: Religion**

- Islam (the Quran, theology, interpretation, history, etc)
- Personal religious thoughts and experiences
- Islamic Revolution (legitimacy, support, criticism, role of religion in the state)
- Religious poetry

(QID: 25) **General Topics: Personal**

- Personal diary (activities, private thoughts and reflections, etc)
- Single life (love, relationships, dating, etc)
- Family life (love, marriage, children, etc)

(QID: 26) **General Topics: Culture, History and Technology**

- Iran-Iraq War (Martyrs, history, remembrance, etc)
- Poetry, literature, and art
- Technology (Internet, blogging, computers, software, etc)
- Western culture and values (criticism, support, etc.)

(QID: 27) **Specific Topics: (add topics you think are important, using question 11)**

- gas prices/rationing
- Nuclear issue
- M. Dehnamaki's movie, 'Ekhrajiha'
- Speeches of leaders (current and historical)
- Criticism of the media
- M. Ahmadinejad's visit to the US/Columbia University
- the 12th imam of Shiaas(the disappeared Imam)
- admiration of Ayatollah Khamenei
- Fatemeh Zahra(Shiaa female religious figure)
- The arrest of Hossein Mousavian
- Bombing of the Samarra Mosque in Iraq
- Denmark Muhammad Cartoons
- 2006 World Cup
- Muharram
- Possibility of US Strikes on Iran
- Criticizes Ahmadinejad

- Crackdown on University Students
- Political Satire
- Political Prisoners
- Censorship
- Human Rights Organizations
- Akbar Ganji: No military strike, yes foreign intervention
- Cinema/Theatre
- American Movies
- General Regime Criticism
- Iran's Role in Iraq
- Iran's Economic Backwater
- Unemployment in Iran
- International Feminism
- International Women's Rights
- International Women
- Simple Personal Diary
- The Roots of Religion (Philosophy)
- Iranian Culture and Periodic Changes
- Islam and Shiism and Periodic Changes
- Protest against Ahmadinejad at Amir Kabir University
- Student Day in Iran
- Socialism
- Critical of Capital Punishment
- Iranian Cinema
- Zoroastrian News in Iran
- Zoroastrian Activities and Representatives in Iran
- Women's Rights
- Literature
- Movement to free blogger Mojtaba SamieNejad
- Democracy
- Dance
- Journalism
- Emad Baqi
- children war victims
- Photos of Iran
- Hezbollah
- Ghods, Palestine, Lebenan
- Slow Internet connection in Iran
- Defending Islam and criticizing 'bad' Muslims
- Sardar Jaafar Asadi and his death
- Resolution 598
- Saddam Hussein
- Sohrab Sepehri and his complains about American capitalism

Extended Questionnaire (Continued)

- | | | | |
|--------------------------|---|--------------------------|--|
| <input type="checkbox"/> | Psychology | <input type="checkbox"/> | Imam Hussain |
| <input type="checkbox"/> | Rafsanjani | <input type="checkbox"/> | theories of culture |
| <input type="checkbox"/> | Mykonos terrorism trial | <input type="checkbox"/> | sex and taboos |
| <input type="checkbox"/> | Life in Malaysia | <input type="checkbox"/> | Ostad Samadi |
| <input type="checkbox"/> | Photography | <input type="checkbox"/> | Children of Hussain |
| <input type="checkbox"/> | Alternative spiritualities | <input type="checkbox"/> | post-modern poetry |
| <input type="checkbox"/> | Poetry | <input type="checkbox"/> | linguistics |
| <input type="checkbox"/> | Criticism of Ahmadinejad's participation in the GCC Confer. | <input type="checkbox"/> | morphology and neologisms |
| <input type="checkbox"/> | Olympics | <input type="checkbox"/> | pilgrimage |
| <input type="checkbox"/> | AIDS | <input type="checkbox"/> | Pre-Islamic Iranian History |
| <input type="checkbox"/> | Communication studies | <input type="checkbox"/> | Zoroastrian culture |
| <input type="checkbox"/> | Imam Reza (Shiaa male religious figure) | <input type="checkbox"/> | Woman in Zoroastrianism |
| <input type="checkbox"/> | Student Life | <input type="checkbox"/> | Nationalist poetry |
| <input type="checkbox"/> | Polling in Iran | <input type="checkbox"/> | Admiration of Khatami |
| <input type="checkbox"/> | Role of Internet in NGOs | <input type="checkbox"/> | Ayatollah Ahmad Mojtahedi |
| <input type="checkbox"/> | Yilda celebration | <input type="checkbox"/> | Media in Mashhad |
| <input type="checkbox"/> | Sport | <input type="checkbox"/> | Publication of 'Rah' magazine |
| <input type="checkbox"/> | Qalibaf and last presidential election | <input type="checkbox"/> | Music |
| <input type="checkbox"/> | Shiite Religious Figures | <input type="checkbox"/> | Criticism of TV Show 'Hourglass' (Saat-e shni) |
| <input type="checkbox"/> | Issue of Temporary Marriages | <input type="checkbox"/> | Iranian media and expatriate Iranians |
| <input type="checkbox"/> | Parliamentary elections | <input type="checkbox"/> | Life in prison |
| <input type="checkbox"/> | Internet support and free downloads | <input type="checkbox"/> | Women working outside the home |
| <input type="checkbox"/> | Memoirs of the war period | <input type="checkbox"/> | Religious poetry |
| <input type="checkbox"/> | Assassination of Bhutto | <input type="checkbox"/> | Shia holidays |
| <input type="checkbox"/> | Analyzing political events and activities. | <input type="checkbox"/> | Inspirational and self-help sayings |
| <input type="checkbox"/> | Publicizing political documents | <input type="checkbox"/> | God's love |
| <input type="checkbox"/> | Admiration of Regime and Leadership | <input type="checkbox"/> | Online books |
| <input type="checkbox"/> | Admiration of Basij | <input type="checkbox"/> | Nursing |
| <input type="checkbox"/> | Critical of US and UK Role in Middle East | <input type="checkbox"/> | Internet radio/podcasts |
| <input type="checkbox"/> | Analysis and Criticism of the Bahai Faith | <input type="checkbox"/> | Blogging tools |
| <input type="checkbox"/> | Criticizing Israel and Zionism | <input type="checkbox"/> | Romance |
| <input type="checkbox"/> | Rampant Inflation | <input type="checkbox"/> | Criticism of Iran's Judicial System |
| <input type="checkbox"/> | The Problem of Rampant Prostitution | <input type="checkbox"/> | Criticism of Liberals |
| <input type="checkbox"/> | Ramadan | <input type="checkbox"/> | Admiration of Extremists |
| <input type="checkbox"/> | Dubai, UAE | <input type="checkbox"/> | US and Federalism |
| <input type="checkbox"/> | Student Activism | <input type="checkbox"/> | American History, Economics, and Wars |
| <input type="checkbox"/> | Environmental Studies | <input type="checkbox"/> | General Memoirs |
| <input type="checkbox"/> | Nature and Natural Resources in Iran | <input type="checkbox"/> | South African literature |
| <input type="checkbox"/> | Imam Musa as-Sadr & Muammar Qadhafi | <input type="checkbox"/> | What 'real' Shiism is |
| <input type="checkbox"/> | US Role in South America | <input type="checkbox"/> | Nazar Qabbani |
| <input type="checkbox"/> | Publication of Uncensored Political Images | <input type="checkbox"/> | War protest |
| | | <input type="checkbox"/> | Translation of poetry |
| | | <input type="checkbox"/> | Admiration of the Supreme Leader(Velayat e Faghih) |
| | | <input type="checkbox"/> | Admiration of 'Mother' and her sacrifices |

Extended Questionnaire (Continued)

- martyrdom
- original lyric poetry
- family memories and holidays
- motherhood
- video games and the meaning of life
- Hussein and Ali
- personal philosophy
- Invited visit to a shrine
- prayers and personal thoughts
- Pilgrimages to Karbala and Mecca
- Admiration of Hassan Nasrallah
- Admiration of Ayatollah Khomeini
- Scientists' Biographies and Achievements
- Scientific Facts and Events about the World
- Iran-Iraq War Highlights
- Religious Street Theatre (Tazieh)
- Teaching Islam
- Introducing Internet Books
- Critical of the Education System in Iran
- H

(QID: 18) **Add topic:** enter one or a few words describing the topic you have identified, then click "Save Answers."

(QID: 19) **Notes or observations:** Please type below any general observations about the blog or blogger: What stands out most about this blogger?

(SEE APPENDIX E FOR A SELECTION OF ANSWERS TO THIS QUESTION)

APPENDIX B: NOTES ON METHODOLOGY

We used computational social network mapping in combination with human and automated content analysis to analyze the Iranian blogosphere.

Morningside Analytics Data and Mapping:

The basis of the social network analysis and blogs selection was a corpus of blog data collected by Morningside Analytics (MA) between July 2007 and March 2008. MA

tracks a list of over 200,000 Persian language blogs, built initially from a snowball spidering process. 98,875 of these blogs are monitored daily, with all new text and links recorded to a database. Social networks analysis was used to identify the most active and prominent blogs, the top 6018 of which were mapped to identify the core structures of the Iranian blogosphere, create visualizations, and identify blogs for human and computational text analysis. The map (visualization) of the Iranian blogosphere is plotted using the Fruchterman-Rheingold algorithm, which employs a 'physics model' approach in which blogs that are more densely connected are drawn together into clustered 'network neighborhoods.' The color of the blogs results from 'Attentive Cluster Analysis,' in which the linking histories of blogs are compared statistically in order to identify groups sharing similar linking preferences. The largest seven attentive clusters corresponded with major structural features of the Iranian blogosphere, and were selected for qualitative study. Smaller clusters were not studied in-depth, though this would be a worthy topic for future analysis.

Berkman content analysis:

At Berkman, we employed a mix of automated text analysis with human content analysis.

Automated analysis: We extracted Persian language terms from Wikipedia, from which MA generated an analysis of relative frequencies in the use of over 1700 search terms across all attentive clusters. Patterns in the preferences for use of these terms by various clusters were used to infer topical preferences of *attentive clusters*.

Human coding: Jason Callina of the Berkman Center created an online coding tool in order to simplify the process for researchers, ensure greater consistency in data collection, allow for easier interpretation and sorting of data, and to identify which researchers read which blogs. A sampling of blog URLs from across the map were fed into the tool, which assigned them for coding to our team of Persian language researchers. Each researcher read the blogs assigned to them by the tool and then filled out the code sheet/questionnaire based on their understanding of the blog. Two questionnaires were used, basic and extended. Copies are attached in Appendix A. A group of seven Persian speakers read and coded more than 600 blogs over a period of approximately five months. Of these, 500 (that were part of the final map) were included in the analysis. Researchers had at least general professional proficiency (self-assessed) in Persian, and

in most cases native-level language fluency. Researchers remained anonymous due to the sensitivity of studying Iran and Iranian blogs. To supplement our understanding we sat on several occasions with researchers and read blogs together, as well as analyzed popular outlinks such as news sources, portals, and other websites.

APPENDIX C: YOUTUBE CLIPS

The following were the most highly cited YouTube clips in the Iranian blogosphere as of February, 2008.

1. <http://www.youtube.com/watch?v=6al6Z6hF48E>: “Kiosk: Love for Speed. A music video from the popular group Kiosk.
2. <http://www.youtube.com/watch?v=-eYAnT-CW3A>: “Akhoond’s (Cleric) Comment on Girls.”
3. <http://www.youtube.com/watch?v=40mvtRJBEnA>: “A girl with a childish voice,” A pretty and stylish young woman who sings children’s songs with the voice of a child.
4. <http://www.youtube.com/watch?v=9R5oLZ8TnWs>: “Holy Crime,” State terrorism by the Islamic Government of Iran in European Countries.
5. http://www.youtube.com/watch?v=_Lw5Uekabhl: “Crack in Iran,” This video clip is about a guy who did crack in Iran found on the streets of Tehran, a few men try to help him wash himself (his body is burnt) and help him to wear some clothes.
6. http://www.youtube.com/watch?v=t3KRHF0_2WU: “Nazeri,” A video of Shahram Nazeri (one of the most prominent singers and musicians of traditional Iranian music) Singing a song in Kurdish.
7. <http://www.youtube.com/watch?v=MUnhQOZcqE0>: “Mohsen Namjoo,” A song that appears to be a classical poem sung by Mohsen Namjoo (A popular jazz musician in Iran among young people).
8. <http://www.youtube.com/watch?v=2hWS3gvvLJI>: “Iran ey Sara e Omid,” Mohammad Reza Lotfi, Shahram Nazeri and other famous Iranian musicians.
9. <http://www.youtube.com/watch?v=in-vF2LvITk>: “Mansour Osanloo - Freedom Will Come” In English, a

video about imprisoned labor activist Mansour Osanloo.

10. <http://www.youtube.com/watch?v=GtkM2VxoGY>: “Against Capital Punishment—Against the Islamic Regime,” in form similar to a rap song.
11. <http://www.youtube.com/watch?v=UNYFDc4ieVY> (this video was removed).
12. <http://www.youtube.com/watch?v=HwGB1kugDbo>: “Sugar Cane Workers’ Protest in Haft Tappeh (Khouzestan Province),” The clip shows a selection of photos from the October 2007 protest.
13. <http://www.youtube.com/watch?v=wp9MrVJ9i8>: This video is in Russian, but linked to in the Iranian blogosphere. It shows a women stuffing ballot boxes in Moscow during the Parliamentary elections on December 2, 2007.

Wikipedia term list search densities (standardized scores)

| hits | mean | stdev | secPat | refPol | conPol | 12er | relYth | poet | mixNet | fac1 | list |
|------|------|-------|--------|--------|--------|------|--------|------|--------|-------|---|
| 280 | 0.07 | 0.08 | | 0.69 | 1.91 | 0.74 | | | | -1.62 | Iranian Ayatollahs |
| 95 | 0.02 | 0.02 | | | 1.62 | 1.52 | | | | -1.50 | Assassinated Iranian politicians |
| 65 | 0.02 | 0.03 | | | 2.26 | 0.60 | | | | -1.29 | Iranian religious leaders |
| 346 | 0.08 | 0.11 | 0.00 | 1.01 | 2.02 | | | | | -1.28 | Iranian clerics |
| 79 | 0.02 | 0.02 | 0.09 | 1.10 | 1.94 | | | | | -1.28 | Iranian law |
| 92 | 0.02 | 0.03 | | 1.06 | 2.03 | | | | | -1.22 | Iranian political organizations |
| 155 | 0.03 | 0.04 | | 1.37 | 1.80 | | | | | -1.22 | Iranian Majlis Speakers |
| 276 | 0.05 | 0.06 | 0.42 | 1.88 | 0.99 | | | | | -1.19 | Political parties in Iran |
| 71 | 0.02 | 0.02 | 0.33 | 0.30 | 2.20 | | | | | -1.16 | Iranian generals |
| 327 | 0.06 | 0.08 | 0.43 | 1.28 | 1.67 | | | | | -1.14 | Iranian fundamentalists |
| 59 | 0.01 | 0.02 | | 1.01 | 2.03 | | | | | -1.14 | Law enforcement in Iran |
| 537 | 0.10 | 0.10 | 0.94 | 1.46 | 1.16 | | | | | -1.11 | Prime Ministers of Iran |
| 997 | 0.20 | 0.25 | 0.10 | 1.51 | 1.61 | | | | | -1.09 | Iranian politician stubs |
| 45 | 0.01 | 0.02 | | | 2.40 | 0.06 | | | | -1.06 | Iranian military personnel of the Iran-Iraq War |
| 147 | 0.04 | 0.07 | | 0.73 | 2.23 | | | | | -1.06 | Iranian Majlis Deputy Speakers |
| 195 | 0.04 | 0.05 | 0.11 | 1.03 | 1.98 | | | | | -1.05 | Iranian conservatives |
| 116 | 0.02 | 0.03 | 0.01 | 1.70 | 1.44 | | | | | -1.04 | Iranian Vice Presidents |
| 376 | 0.07 | 0.09 | | 1.94 | 1.18 | | | | | -1.03 | Presidents of Iran |
| 711 | 0.14 | 0.19 | | 1.76 | 1.41 | | | | | -1.03 | Government ministers of Iran |
| 459 | 0.10 | 0.13 | | 1.81 | 1.38 | | | | | -1.03 | Iranian reformists |
| 632 | 0.13 | 0.17 | | 1.76 | 1.41 | | | | | -1.02 | Iranian Majlis Representatives |
| 256 | 0.05 | 0.07 | 0.07 | 1.89 | 1.19 | | | | | -1.02 | Iranian Vice Ministers |
| 332 | 0.07 | 0.11 | | 1.27 | 1.89 | | | | | -1.00 | Iranian presidential candidates |
| 131 | 0.03 | 0.03 | 0.84 | 1.41 | 1.30 | | | | | -0.97 | Iranian women academics |
| 77 | 0.02 | 0.02 | | 1.96 | 1.15 | | | | | -0.94 | Iranian newspaper publishers (people) |
| 50 | 0.01 | 0.02 | | 1.83 | 1.38 | | | | | -0.94 | Female Iranian Vice Presidents |
| 50 | 0.01 | 0.02 | | 1.83 | 1.38 | | | | | -0.94 | Women in the Iranian Cabinet |
| 51 | 0.01 | 0.02 | | 1.83 | 1.38 | | | | | -0.93 | Iranian women in politics |
| 672 | 0.13 | 0.12 | 0.82 | 1.81 | 0.62 | | | | | -0.82 | Iranian academics |
| 244 | 0.05 | 0.05 | 1.66 | 0.96 | 0.74 | | | | | -0.82 | Iranian democracy activists |
| 561 | 0.10 | 0.10 | 0.85 | 1.77 | 0.80 | | | | | -0.80 | Iranian Americans |
| 468 | 0.08 | 0.09 | 1.49 | 1.34 | 0.65 | | | | | -0.75 | Iranian prisoners and detainees |
| 153 | 0.03 | 0.03 | 1.69 | 1.07 | 0.61 | | | | | -0.73 | Iranian women lawyers |
| 91 | 0.02 | 0.02 | 1.16 | 1.77 | 0.43 | | | | | -0.72 | Persian Jews |
| 141 | 0.03 | 0.03 | 1.49 | 1.14 | 0.43 | | | | | -0.71 | Iranian women activists |
| 309 | 0.05 | 0.05 | | 0.95 | 1.94 | | | | 0.22 | -0.71 | Iranian businesspeople |
| 121 | 0.02 | 0.02 | 1.65 | 1.11 | 0.53 | | | | | -0.70 | Iranian women judges |
| 682 | 0.14 | 0.07 | 0.98 | 0.94 | 0.51 | | | | | -0.65 | Iranian women writers |
| 76 | 0.01 | 0.02 | 1.18 | 1.86 | 0.17 | | | | | -0.62 | Iranian criminals |
| 101 | 0.02 | 0.02 | 1.85 | 1.22 | | | | | | -0.58 | Iranian secularists |
| 83 | 0.01 | 0.02 | 1.17 | 1.88 | 0.11 | | | | | -0.56 | Iranian murderers |
| 503 | 0.08 | 0.11 | 1.39 | 1.74 | 0.02 | | | | | -0.55 | Iranian bloggers |
| 540 | 0.09 | 0.08 | 0.73 | 1.74 | 0.17 | | | | | -0.47 | University of Tehran faculty |
| 188 | 0.03 | 0.04 | 1.38 | 1.73 | | | | | | -0.47 | Iranian expatriates in Canada |
| 50 | 0.01 | 0.01 | 0.20 | 0.98 | 1.32 | | | | 0.97 | -0.45 | Iranian folk singers |
| 471 | 0.07 | 0.09 | 1.74 | 1.43 | | | | | | -0.41 | Prisons in Iran |
| 422 | 0.07 | 0.07 | 1.79 | 1.17 | | | | | | -0.19 | Iranian women's rights activists |
| 243 | 0.04 | 0.03 | 1.21 | 1.56 | 0.20 | | | | | -0.18 | Iranian families |
| 81 | 0.01 | 0.01 | 1.30 | 1.42 | 0.43 | | | | 0.29 | -0.12 | Iranian film producers |
| 81 | 0.01 | 0.02 | 1.38 | 1.76 | | | | | | 0.03 | Iranian judges |
| 77 | 0.01 | 0.01 | 1.18 | 1.01 | | | | | | 0.13 | Iranian children's writers |
| 63 | 0.01 | 0.01 | 1.11 | 1.92 | | | | | | 0.27 | Iranian comics writers |
| 91 | 0.01 | 0.01 | 0.30 | 1.87 | | | | | 0.95 | 0.35 | Kurdistan |
| 573 | 0.16 | 0.29 | | | | 2.44 | | | | 0.39 | Islamic Republic of Iran Broadcasting |
| 555 | 0.16 | 0.29 | | | | 2.44 | | | | 0.40 | Television stations in Iran |
| 97 | 0.02 | 0.02 | 1.97 | 0.90 | | | | | | 0.44 | Iranian murder victims |
| 94 | 0.01 | 0.01 | 0.95 | 1.18 | 0.33 | | | | 1.10 | 0.49 | Olympic footballers of Iran |
| 66 | 0.01 | 0.01 | 0.34 | 0.62 | 0.86 | | | | 1.66 | 0.52 | Iranian santur players |
| 448 | 0.05 | 0.04 | 0.12 | 1.66 | | | | | 1.42 | 0.80 | Iranian television actors |
| 57 | 0.01 | 0.01 | | 0.13 | 0.27 | | | | 2.29 | 1.26 | Expatriate footballers in Iran |
| 628 | 0.06 | 0.08 | | 0.60 | 0.04 | | | | 2.20 | 1.31 | Esteghlal FC players |
| 327 | 0.04 | 0.04 | | 1.17 | | | | | 1.87 | 1.58 | Persian classical musicians |
| 47 | 0.00 | 0.01 | | 0.55 | | | | | 2.27 | 1.60 | Iranian Christians |
| 620 | 0.08 | 0.05 | 0.60 | 1.08 | | | | 0.15 | 1.30 | 1.81 | Iranian vocalists |
| 646 | 0.08 | 0.05 | 0.71 | 0.91 | | | | 0.38 | 1.39 | 2.08 | Iranian singer-songwriters |
| 47 | 0.01 | 0.01 | 0.27 | | | | 1.71 | 0.84 | 3.06 | | Iranian lyricists |

APPENDIX E: BLOG DESCRIPTIONS BY CLUSTER

Q: "Notes or observations: Please type below any general observations about the blog or blogger: What stands out most about this blogger?"

secPat

1 Blogger is highly critical of the regime's treatment of women and unfair trials for political prisoners and their incarcerations. Blogger condemns the death of political prisoners while in jail. Blogger is also critical of Iranian cinema and actors.

2 Blog is a simple personal diary with a few links to political sites.

3 Radical gender views with high western theory

4 The blog is an activist blog that address women's rights in Iran and abroad, from Brazil to Iraq. Also has a petition urging the release of jailed university students.

5 Blogger surveys women's freedom, or lack thereof, in comparison to men's rights in Iran. She criticizes capital punishment in Iran.

6 Blogger criticizes journalists, women's rights (lack thereof) and the head of the ministry of justice's recommendation advocating temporary marriages in Iran.

7 Blogger believes that Iran lacks basic freedoms and democracy and posts articles, poems, and pictures to reflect his beliefs.

8 This blog is devoted to criticizing the Iranian regime and also has included many books to help people read books online.

9 The blog is not an intellectual blog, but does talk about about misjudgments and censorship in Iran and poverty in her town in U.S.

10 The blog is mainly devoted to human rights, entertainment, satire, science, and society. Although it mentions politics, it is not a political blog.

11 Blogger is critical about journalism in Iran and reviews movies related to post-war Iraq.

12 Updates of Persian-language books available online.

13 Blog is an apolitical weblog that offers Internet technological support while occasionally posting news pieces.

14 Simple blog that talks about Iranian books and writers.

refPol

15 Blog isn't specific to one topic but talks about Iranian construction efforts in Lebanon, Iran's role in Iraq, economics, etc.

16 Blog criticizes the government through political satire.

17 Aggregates other blogs by young people

1 This blog satirically addresses student issues like drug addiction, imprisonment, lack of political freedom, and general political issues.

2 Blog talks directly about politics and government issues in Iran.

3 This blog mostly talks about and criticizes the regime's poor policies in maintaining and saving the Iranian environment and natural resources. The blogger furthers her argument by posting powerful and sad pictures.

4 Blog taken down for rules violations

5 Mixture of personal and political commentary. Middle-left political views

6 The blog is published by one of Iran's most popular political parties, "Jebheh Mosharekat." Students and intellectuals are the party's base of support. In this site people can read and discuss the mistakes and mismanagements of the current administration.

7 Blogger doesn't really write anything on his own but posts articles written by others about the above [political] topics. It seems as those it runs a feed for a number of other sites.

8 His blog is mainly devoted to theatre and it chronicles a festival of theater in a provincial capital and in Iran as a whole but he does occasionally post on the above [political] topics as well.

9 This blog is written by an expert who studies forests, mountains, and natural resources in Iran and talks about the damages wrought on some of the forests in Iran which were converted to simple lands.

10 Old address of #####.org--subject to filtering in Iran

conPol

1 The blog is devoted to supporting the regime, its founder (Khomeini), and its current leadership, and their government policies and record.

2 Mainly religious poetry and thoughts--maybe some creative writing/reminiscences

3 While this weblog seems to be mostly a religious blog, it certainly contains explicit political state-

ments and views. In this blog Iranian Islamic and conservative leaders (of the past and present) are constantly mentioned and admired. In addition, this blog contains entries regarding other Islamic(Islamist?) leaders such as the leader of Hezbollah. Furthermore, this blog directly attacks Bush more than any other Western leader, it talks about the Iraq war and other wars and forms of violence implemented by the US in the region.

4 This blog reviews political events and news and has a general disdain for liberals in Iran and admires the extremists like Ahmadinejad.

5 The blog directly analyzes the rampant inflation that is causing wreaking havoc on Iran's middle class and blue collar class of the society, leading women and young girls to prostitution. This site also talks about other issues and problems caused by the regime using slang and indirect logic.

6 Blog directly and openly criticizes the regime, its leadership, policies, mistakes, and brings attention to Iran's problems.

7 Wide variety of personal and public topics

8 This blog is devoted to supporting the government and its leadership as the blogger believes they represent God and Shiite figures.

9 Blog supports the regime, its founder (Khomeini), current leadership, and policies. It is both critical of the Bahai Faith and Zionism and analyzes. The blog also discusses Muharram and Ashura processions.

10 This weblog both criticizes and admires Ahmadinejad in different instances.

11 Religion and cultural commentary--conservative

12 This blog admires Islam and Islamic leaders like Ayatollah Khamanei and Ahmadinejad. Concurrently, the blog criticizes the regime on women issues, some of its leaders, Israel, and U.S policies in the region.

13 This blog analyzes speeches and political activities of Iranian liberals from a right-wing extremist standpoint. Additionally, the blogger supports Islamic rules and regulations in Iran.

14 This blog supports the Ahmadinejad regime while criticizing the court system and the seemingly arbitrary nature of political arrests.

15 This blog is a personal diary and talks about students' political activities and gatherings. The blog also addresses the issues and mistakes of Ahmadinejad and other government leaders. The blog also criticizes the media for unfairly attacking Iranian national heroes such as Dr. Mossadegh.

16 This blog talks about the regime's mistakes

and problems and criticizes the regime and the leaders by indirectly questioning the veracity of government facts and statistics.

17 Reflections on media in Mashhad

18 This blog is run by a group of students who analyze selected domestic and international news. The blog contains interesting uncensored political pictures and in some cases reviews and political questions.

19 The creator of this blog has been missing for several months and now the blog is being used by his partner to bring attention to his disappearance and calls for help in finding him.

20 This site analyzes political events and directly or indirectly criticizes the government's corruption and bad policy. The first page is not political at all probably to hide the site from censorship or to protect the author of the site. The main page is about how to treat your spouse but a closer looks reveals a political outlook.

21 Blog denounces the regime's corruption and lack of respect for the law of the land. Blogger also discusses the student movement and criticizes some media outlets.

22 This is a religious blog, mostly analyzing speeches and activities of political figures in Iran. The blogger opposes most student political activities that are geared towards changing the Islamic system.

23 The name of this blog is "Khomeinism".

24 This is an intellectual site analyzing important events, activities, and mistakes of the Iranian regime in detail using persuasive logic.

25 This blog is mostly about romance, the author's lost love, and how to strengthen to romantic relationships.

26 This blog is mostly poems and articles written by an Islamic group of students who believe in Islam, the martyrs of Islam, the Islamic revolution, and all the regime's objectives in Iran.

27 This blog levels a wide range of criticisms at the regime; from economic inequality and poverty to censorship, arrests of students, and corruption in the media and judicial system.

28 This is a sophisticated educational blog. The blog reviews domestic and international political events and news related to Iran and is generally against the liberals in Iran. This blog also educates people about federalism in the United States, its economic background, and history of American warfare, both domestic and international.

29 This blog is all about poetry with a depressed theme that indirectly addresses political, social, and economical problems in Iran.

- 30 Religious writings
- 31 This blog is mostly defending the new radio station in Iran "Radio Javan" by echoing the speeches from political figures and articles from Iranian TV stations and newspapers.
- 32 Blog is about poetry and talks about signs indicating that the 12th Imam will be returning soon.

12'er

- 1 All religion-related posts
- 2 This is a religious blog that includes a lot of Islamic articles. The goal of this site is to educate the blog's readers about Islam. The blog, however, doesn't seem very educational.
- 3 Entirely religious, admiration of Hussain. Many examples of calligraphy and pictures of mosques.
- 4 Dedicated to the words and thoughts of Ostad Samadi.
- 5 memoirs about prison life
- 6 All about the memorization of the Quran
- 7 The author of this blog explicitly states in his introduction that this blog is not intending to get involved in the partisan scene of politics and that it is only an attempt to reflect feelings about the 12th imam of Shiaas who will one day appear in the world.
- 8 This blog seems purely religious.
- 9 This blog is mostly about the holy wait for the 12th Imam.
- 10 mostly just religious.
- 11 This blog mostly entails religious poems about Islam, Shiite figures, and the martyrs of Iran-Iraq war. Interestingly enough, the blog poetically criticizes the mismanagements and of some of the regime's leadership without specifically mentioning any names.

reLYth

- 1 Many of the earlier posts are religious, but the recent posts are meta-blogging about how to behave on a blog, a review of the past year of the blog
- 2 the writer introduces himself as an "association" for answering the common religious questions.
- 3 This blog is devoted to literature and poems from famous Iranian poets and religious figures.
- 4 Devoted to religion, pictures of Khamenei and Ahmadinejad
- 5 Mixture of political observations and personal diary
- 6 the name of blog designer is written, but I'm not sure he's is the writer itself.

- 7 Religious but also seemingly liberal and has interests in the supernatural
- 8 it contains general sporadic informations from "Bermuda triangle" to Iranian artists and the history of the first universities in the world.
- 9 the writer is writing against reformists and criticizing them, while defending 9th president, namely Ahmadinejad.
- 10 this blog is totally about "temporary marriage" in Islam and its affects on today's society and the wrong interpretations associated with this concept.

poetry

- 1 Personal poetry diary and links to other poetry sites; info about journals' new issues
- 2 Publishes old poetry, some new poetry
- 3 Poetry and cultural events
- 4 Blog is devoted to the arts (poetry and music).
- 5 This blog is devoted to romance poetry that marks specific poetic events and poets.
- 6 The blogger is a part of a amateur poetry group called Radical, posting and commenting on each other's work
- 7 Self-published poetry and notes about poetry publications
- 8 This blog was moved to <http://#####.blogfa.com> and is all about romance, including poems from a 17 year old student in the city of #####, in #####ern Iran.
- 9 Poetry group blog, mostly on modern poems and mainly influenced by religious views
- 10 paired with hojum2.blogfa.com; literature and arts, poetry
- 11 Blog is devoted to poetry and literature. The blogger himself, however, is angry over his dismissal from his original university for his human rights activities and is now disgruntled because he attends another university far from his home.
- 12 This blog is all about romance, written by a young woman.
- 13 Personal poetry
- 14 Personal diary, with song lyrics/poetry written by blog author
- 15 This blog is only about Persian poetry. It seems the blogger is working for the literature Department of Tehran University. He writes mainly on extracts from his poems as well as introducing unknown poets with some reference to historical and structural debates on Persian poetry.

mixNet

1 Blog is full of both romantic and religious poetry highlighting important Islamic events, martyrs, and births.

2 Blog is run by Zoroastrians and chronicles great Iranian leaders and Zoroastrian-related events.

3 This blog is mainly devoted to love poetry and does not talk about politics.

4 Daily football broadcast schedules

5 This blog seems to be mostly about the philosophy and lesson of Shiaa Islam.

6 Blog is a satirical blog poking fun at domestic issues and politics.

7 Blog is mainly devoted to Internet technology, how to create a weblog, and how to add to it.

8 Nationalist, nostalgic for Persian Empire. Maybe Zoroastrian author

9 Blog is devoted to poetry but through that poetry longs for freedom in Iran.

10 Bloggers distresses about the poor in Iran and hopes for freedom for Iran's imprisoned students and for the whole of the country.

11 This blog is about romantic literature and alternative spiritualities.