## **FINDING A WAY**

How Iranians reach for news and information

The Iran Media Program's 2011-2012 report on media consumption in Iran

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The Iran Media Program is a collaborative network designed to enhance the understanding of Iran's media ecology. Our goal is to strengthen a global network of Iranian media scholars and practitioners and to contribute to Iran's civil society and the wider policy-making community by providing a more nuanced understanding of the role of media and the flow of information in Iran.

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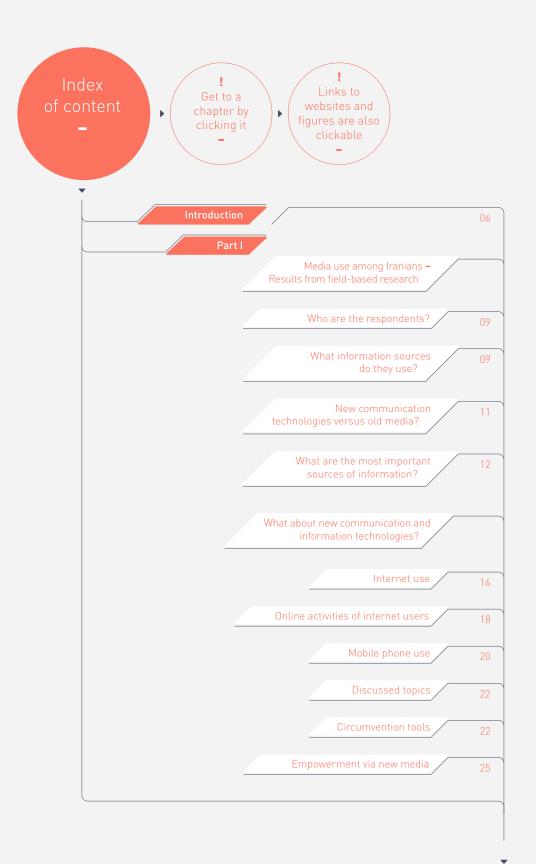
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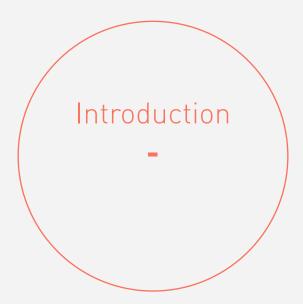




One of the main articles of the International Bill of Rights grants the right to freedom of expression.

The International Covenant on Civil and Political Rights, which the Islamic Republic of Iran remains a signatory to, stresses that freedom of expression throughout the world is a universal right. It includes the right of individuals to freely search, receive and share information. However, with the establishment of state organs such as the Ministry of Islamic Guidance and Intelligence, the Revolutionary Guards Cyber Division and state policies on mass media and its many amendments, the Islamic Republic of Iran continues to ensure access to information is one of the most restricted spheres of activity for all Iranian citizens both within and outside its borders (Ansari & Danesh, 2011, p. 7).





Iranian media have attracted the attention of Western scholars after the contested 2009 elections, which generated discussion on the new media's potential to promote citizen participation in Iran (e.g., Baavur-Hendelman, 2007; Bucar & Fazaeli, 2008; Kelly & Etling, 2008; Sreberny & Khiabany, 2007). Yet, existing research on general media use in Iran – similarly to that in other non-democratic countries – has been limited given the various challenges of conducting public opinion surveys in such contexts.

Few reports offer information on news media use in the country, and those that do are limited in scope and depth. To our knowledge representative data on media use among the Iranian population have been extremely limited. The "Media Environment Guide: Iran" (2009) by BBC Monitoring details Iranian media and broadcasts to Iran, outlining the domestic, international, and satellite TV channels, radio stations, and print sources. The report, however, does not provide information on whether and how Iranians use these media. Complementing these data, the 2010 survey by InterMedia on behalf of the Broadcasting Board of Governors' International Audience Research Program (IARP) tapped, among other issues, general media habits, TV viewership times, trust in the media, reach of international and local radio stations, as well as internet access or reach of some news websites.

While this study provides important information, its methodology necessarily imposes limits on the conclusions that it reaches with regard to actual media use. Also, this survey did not offer in-depth analysis of the political uses of various new information and communication technologies that emerged as particularly important following the 2009 contested election (see InterMedia/ BBG (IARP), 2009).

<sup>1</sup> Specifically, a firm based in Istanbul obtained the responses by calling random numbers from an existing database and - over the phone – asking respondents detailed questions (for details see the report "Persian News Network & Radio Farda Programming to Iran – Survey Results").

More recently, Gallup carried out a national study, on behalf of the Broadcasting Board of Governors' International Audience Research Program (IARP). The survey offers rich information about access to and the usage of technologies such as television, internet or mobile phones, the sources used for information, specific uses of new media as well as political information sharing via various platforms, thus complementing the results reported here. Nevertheless, although the survey is meant to be nationally representative, the mode of its administration (an Istanbul-based research team conducting the interviews over the phone) places significant limits on the use of the findings.

The popular uprisings that followed the elections have generated substantial discussion among scholars, the general public, and civil society advocates on the potential for tools such as Facebook, Twitter, or YouTube to affect dissent and activist organization in authoritarian countries (e.g., Christiansen, 2011; Dabashi, 2010; Esfandiari, June 7, 2010; Fathi, June 7, 2010; Howard, January 25, 2010; Howard, December 18, 2009; Rahimi, 2011).

The massive upheavals that unfolded in and spread through the Middle East and North Africa in 2011 and 2012 have intensified this discussion (e.g., Howard et al., 2011). Both in Iran and, during the collective phenomena termed the Arab Spring, in Tunisia, Egypt, or Syria, some *reformist activists have deployed new media tools to effect change*. Spikes in online revolutionary conversations could also be observed before major events on the ground (see Howard et al., 2011). These observations have contributed to assumptions about social media and their role (central or otherwise) in instigating and shaping these events, leading to attractive monikers, such as Twitter or Facebook Revolutions (see Wojcieszak, Smith & Enayat, 2012).<sup>2</sup>

Yet, other observers – including those who offer the above evidence – have been skeptical that the uprisings in Iran and the Arab Spring were substantially strengthened by new technologies. Some have stated that revolutions "will not be tweeted," noting that Twitter or Facebook were not used for organizing as widely as it is believed (Gladwell, 2010), showing that most Twitter feeds after the election originated outside Iran and reminding the public that the states themselves used new media as a means to target their perceived enemies and to advance in the so-called Soft War (Morozov, 2011).

2 For example, as Nazanine Moshiri, a correspondent for Al Jazeera English, writes "Despite restrictions on access to Facebook in Iran, according to worldpress.org, it is estimated that around 700,000 users were active from February 2008 to June 2009. [...] [D]espite a massive Internet clampdown in the Islamic Republic, the BBC says it was receiving around eight videos a minute at the height of the 2009 unrest. Al Jazeera does not have any concrete numbers, but it ran a special Iran desk, monitoring news coming in from Twitter and YouTube" (p. 30).

Towards addressing these issues with a systematic and scholarly approach, the Annenberg School for Communication's Iran Media Program conducted two studies that were aimed at providing a more complete picture of both traditional and new media use in Iran.

The first study involved a field study of a systematically recruited sample of Iranians, which mirrored the demographics of the country. This study aimed to comprehensively portray general media consumption patterns in the country. The second study, an online questionnaire among young, metropolitan, educated and technologically savvy Iranians, was aimed at illustrating the extent to which these youth employ new media for political purposes over a year after the contested Iranian elections and during the Tunisia, Egypt or Libya uprisings.

If new technologies in fact played a crucial role in Iran, one would hope that citizens – once activated and empowered – would continue using these technologies for strategizing and exchanges about pressing political issues, especially during the wide-scale mobilizing in the region (see Howard, January 25, 2010).

Both studies obtained information on how people in Iran engage with and use various media outlets, mobile, and online/offline communication tools. We paid particular attention to new media technologies, reporting on the use of websites, citizen blogs, Twitter feeds, and SMS text messages. We also included comprehensive lists of traditional news media, such as television, radio and newspapers, and also tapped some other forms of communication such as interpersonal relationships, sermons, or citizen discussion in public places (e.g., taxi cabs or shops) that could play important information and messaging roles.

We first address the findings from our national survey to then focus on information obtained from the Iranian youth.





Media use among Iranians

Results from field-based research



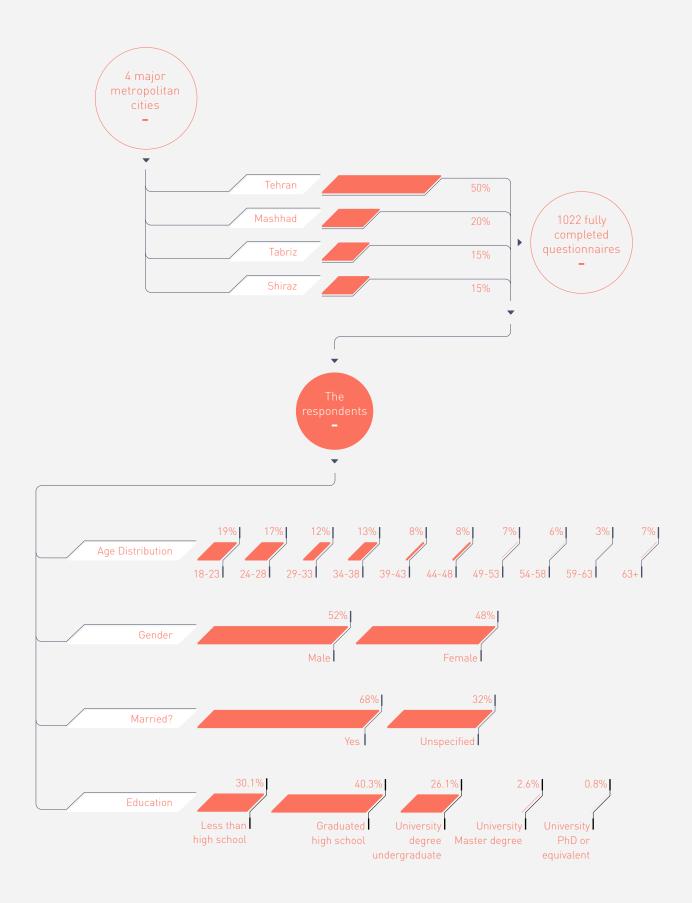
The data for the first study was collected in the field in Iran by an international market research company engaged by the IMP. The current sample was recruited in the four major urban areas of Iran – Tehran (50%), Mashhad (20%), Tabriz (15%) and Shiraz (15%) (see **Appendix 1** for sampling strategy and recruitment).

The interviewing – done between 15 January and 29 February 2012 – yielded 1022 fully completed questionnaires (for a response rate of 30%). Fifty two-percent of the respondents were male, the mean age was 37, and 69% were married. With regard to education, the major educational category consisted of high school graduates (see **Figure 1**).



The overarching purpose of the study was to improve our understanding of the Iranian media environment, by examining how Iranians use various media out-lets and online, mobile, and offline communication tools.<sup>3</sup>

<sup>3</sup> These findings are comparable to the results of the aforementioned InterMedia survey, which found that – when probing about daily exposure – television was the most frequently used source (89%), followed by radio, newspapers (18% each) and the Internet (8%). There, 35% reported using SMS daily for information. The weekly usage of radio, newspapers, and the internet for news was higher, standing at 35%, 41%, and 19%, respectively. Similarly, the recent BBG survey (2012) found that 100% of the interviewed Iranians had a working TV in their home, 82% reported watching it yesterday, and over 90% in the past week, and TV was also a dominant daily source of information for 86% of the sample, followed by mobile phones (18%), radio (16%) and newspapers (16%).





Overwhelmingly, traditional news media (TV, radio or press) were more frequently selected as the main information sources than new media (the internet or text messages). Interpersonal contacts such as family and friends (strong ties) and neighbors or acquaintances (considered weak ties, see Granovetter, 1973) were more often selected than new media. These results may not be surprising since Internet penetration is low in Iran, and unfettered access to in Iran is rare due to heavy filtering and blocking webpages, DDoS, and intentionally slow internet speeds.

Figure 2

What were the most important sources of information?



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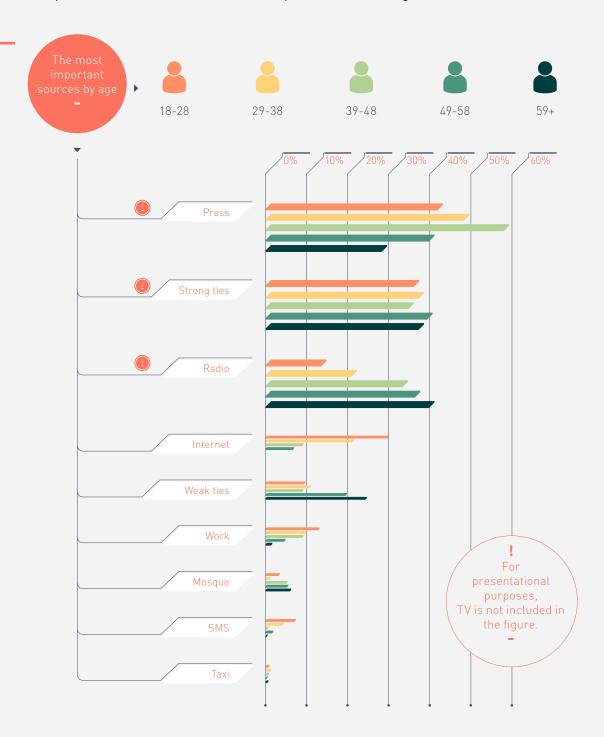
In Iran, SMS texting is a popular advertising medium and frequently used for exchanging jokes, but it is less commonly used for news and information purposes. While SMS is subject to less government intervention, there have been reports this year of blocking SMS text messages that contain certain content that is socially or politically sensitive. Because regular access to new media can be described as problematic in Iran, it is unsurprising that respondents indicate a high degree of reliance on family networks — which tend to be extended and close-knit — for information. That is, in general, in Middle Eastern societies, "traditional state control of the information media has often meant that more reliance is placed on oral and unofficial means of communications, in the mosque, the coffeehouse, or the marketplace" (Fandy, 2000, p. 378).



When asked – out of the sources listed – to select their 3 most important news sources, TV was the first choice for a staggering 96% of the sample, followed by the press (45%) and friends and family (38%). The finding that so few respondents selected taxis, shops, cafés, and the mosque may suggest that – at least for our sample and at this time – public places are an uneasy space for information gathering and exchange, possibly due to the present political situation in Iran and the culture of guarded behavior and speech in public. But these observations must be tempered by the listing of strong ties (family and friends) and weak ties (neighbors or acquaintances) as important outlets for political information, potentially pointing to the trust that people place in their social networks, and which may be lacking in other public contexts.

Naturally, there were variations by age, with the *Internet being far more popular among the younger cohort* (between 18-28 year old, 30% reported it was their most important information source, as compared to 0% among those over 59).

Figure 3



Similarly, SMS text messages and work contacts were also more popular among the younger demographics. In contrast, the older demographics relied more heavily than the younger on such information sources as weak ties, mosque and religious leaders,

and radio. Television, not shown in **Figure 3** in order to more clearly illustrate the patterns, was uniformly popular among all age groups (e.g., 96% of those between 18 and 28, 98% of those between 39 and 48, and 95% of those over 59).

Among those who selected TV as the most important source (96% of the respondents, 978 people), the most frequently chosen channel was the state-run and state-owned IRIB TV (selected by 86% of those 978 people). IRIB was followed by BBC Persian TV (selected by 9% of those respondents) and Manoto (selected by 4%). On the one hand, these results may be due to the reluctance on the part of the respondents to admit that they use satellite TV, which is illegal in Iran. Yet, the survey included a follow-up question that inquired about satellite television use and was worded in a way that implicitly legitimized the use of satellite TV.

Also substantiating our results, the aforementioned report by InterMedia similarly found that the IRIB Channel 1 and 2 had over 84% and 81% reach, respectively (InterMedia / BBG (IARP), 2009). Further increasing our confidence in these findings, the recent BBG survey (2012) reports that the IRIB channels are among the three most important information sources for 86% of the interviewed Iranians, followed by domestic newspapers (11%) and local radio stations (10%). That survey finds that only 2% of the respondents select international TV channels among their three most important sources of news about current events, despite the fact that 19% reported having watched them in the past week.

As before, the preferences varied with age. The latest Europe-based commercial station, Manoto, was the most popular among the younger demographics (used by 7% of those between 18-28 and 4.5% of those 29-38), while not constituting an important source for the Iranians over 59 years of age (0%). In contrast, the older Iranians tended to rely on the state-controlled IRIB channels to a slightly greater extent than the Iranian

- **5** This high of a percentage of IRIB TV viewers may be partly due to the fact that this response option was not divided into channels; rather, respondents were asked about IRIB as a whole. For example, IRIB 3 plays live football matches, which are popular in Iran, while other IRIB channels provide more "propagandistic" political content.
- **6** Similarly, according to a report published by BBC Persian TV, its audience increased to 6 million in 2012, suggesting exactly as found by our survey and underscoring its reliability as validated by external viewership statistics that roughly 1 out of 10 Iranians watches this channel (BBC Persian TV, 29 February 2012).
- 7 Manoto is comprised of two channels, Manoto 1 and Manoto 2. Manoto 1 mostly broadcasts entertainment, with about 40% of the programs being original content and the rest dubbed into Persian. It has no live programs; even the news shown once a day from Monday to Thursday is pre-recorded with almost all content taken from other news media outlets and with no original content. Manoto 2 features documentaries bought from other sources, dubbed and subtitled in Persian (see Azarmehr, 2011).
- 8 First, the interviewer asked "Thinking about the past month, which TV channels have you used for news and information about politics and current events. Please mention all those that you have used in the past month, local and satellite." After probing "Anything else?," the interviewers asked a brief follow up question: "Do you also use any satellite channels for news and information? Which ones?"

youth: these channels were selected by between 77-78% of those between 18 and 28, up to 96% of those over 63 years of age. The differences among the age groups were not as pronounced for other television stations.

From those who selected *radio* as one of the 3 main sources of information (26% or 264 people), 31% chose Radio Payam (Message Radio), a state-owned 24-hour national station that broadcasts news, plays music and announces the traffic in Tehran, as the most important station. It was followed by Radio Javan (Youth Radio) (22%, a state-owned station that caters to a younger audience, amidst what it says is the "cultural invasion" of foreign radio stations and media outlets) and local stations (16.5%).9

With regard to the most frequently chosen newspapers, among those who selected the press among the most important sources (465 individuals or 45.5% of the sample), Hamshahri, a conservative daily newspaper, which has been in print for over fifteen-years and is also recognized as Iran's first full color newspaper, was in first place (41%). It was followed by Khorasan (16%, Iran's oldest local newspaper, reporting news on social, cultural, and political events; printed in both Mashhad and Tehran, and distributed nationally) and Khabare Jonub (7%, a daily provincial paper catering to Iran's southern region and covering a range of topics from culture to politics).

Lastly, there was a substantial dispersion with regard to the most important news websites. Among those for whom the internet was among the top three news sources (19% of the sample or 192 individuals), Google news was selected most frequently (16%), followed by the BBC Persian website (9.5%), Tabnak (9%, a conservative news site associated with members of the Sepah – Army of the Guardians of the Islamic Revolution; its main language is Persian, with recently added sections in English and Arabic) and Fars News (8%, referred to as a "semi-official" news site, because of its close but unofficial ties to the Revolutionary Guard Corps; its mission statement claims that the tenants of the Islamic Revolution as defined in the constitution is what quides them). Balatarin, the independent online platform that aggregates links from users and is the Persian-language version of Digg was selected by only 1 person out of the 192 who relied on the internet as one of their 3 most important news sources. The BBG study (2012), which included a less detailed list and did not specifically ask about informational websites, found that Google was the most visited website in the prior week (62% of the respondents reported accessing it), followed by Yahoo (44%) and Facebook (13%).

**<sup>9</sup>** With regard to radio, the InterMedia report states that the most popular international radio station was Radio Farda, reaching 4% of Iranians weekly.



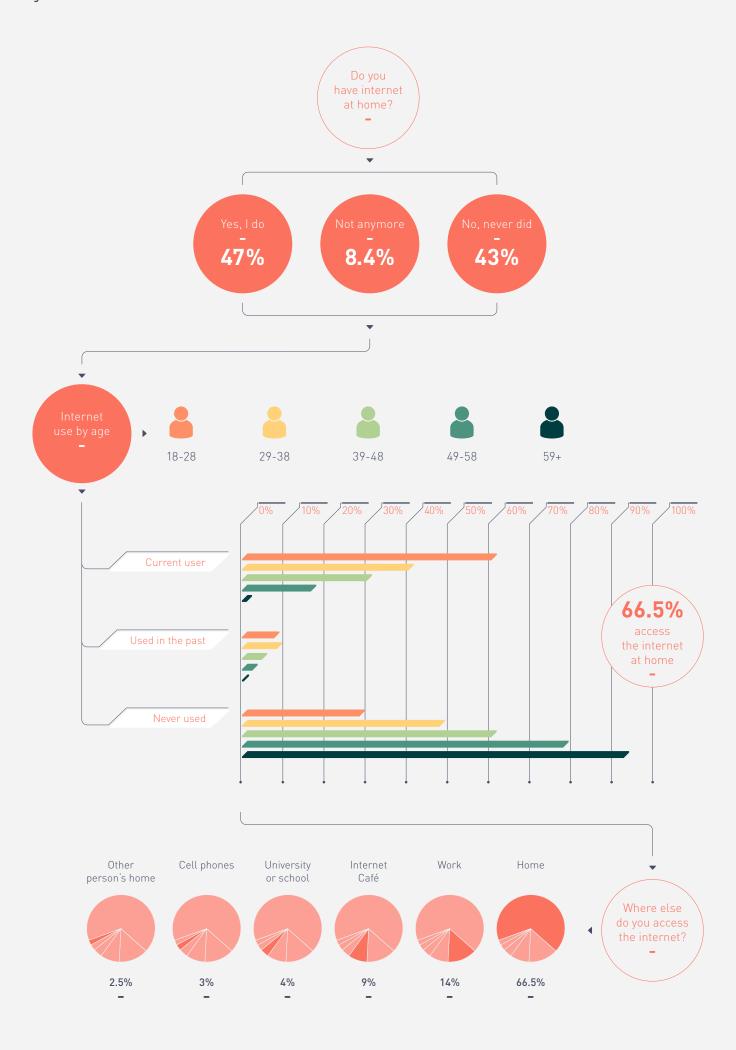
What about new communication and information technologies?

Internet use As other reports have found, fewer than half of our respondents were internet users (see http://www.khabaronline.ir/detail/207053/ict/internet). When asked whether their household had Internet access, 47% indicated that it has access at present, 8.4% that it doesn't but did in the past, and 43% indicated that it never had access. Fewer than half (40% or 413 individuals) were current internet users, 7% (74 people) used the internet in the past, and 52% (535 respondents) never used the internet.<sup>10</sup>

Internet use is unsurprisingly strongly dependent on age. Roughly 60% of the younger demographic (18-28) have internet access at home, compared to 24% of those above 59 years old. A similar story emerges when respondents are asked whether they personally use the Internet or whether they have used the Internet anywhere in the past. As **Figure 4** demonstrates, 61% of the youngest cohort reports being a current user, as compared to 4% of those above 59. Similarly, roughly 1 in 3 of the youngest respondents reports never having used the internet, as compared to 94% of those above 59.

<sup>10</sup> Statistics relating to the number of Internet users in Iran are inconsistent and highly disputed. Until 2009, the single official source of internet use data in Iran was the International Telecommunication Union that based its statistics numbers from the government on different ICT indicators. According to official sources, (http://goo.gl/a3EQu) the methodology used by the Iranian government to calculate the number of Internet users was a forecast of the number of potential users based on the available bandwidth. Therefore, the reported numbers (34%) did not correspond to the actual number of Internet users at all. However, in 2009 and 2011, the Iran Statistics Center conducted surveys on Internet use in Iran. The results of this survey were published in March 2010 and March 2012. The latest survey puts the penetration rate at 21.4% among Iranian households. These surveys have resulted in a correction of data re ported by the ITU as well. http://www.amar.org.ir/Portals/0/Files/abstract/1389/n\_IT\_89.pdf The aforementioned BBG study [2012] reports that 43% of the respondents have working internet at home, and that 20% used it in the past week.

Figure 4 17



As shown in **Figure 4**, the majority of regular internet users (66.5%) reported going online at home, 14% at work, 9% at internet cafés, 4% in school or university, 3% via a mobile phone, while 2.5% at other person's home. The two most frequent internet connections were broadband up to 128 kbps and (16.8%) and dial up (16.4%), while broadband over 128 kbps (8%) and wimax (4%) were much less frequent.

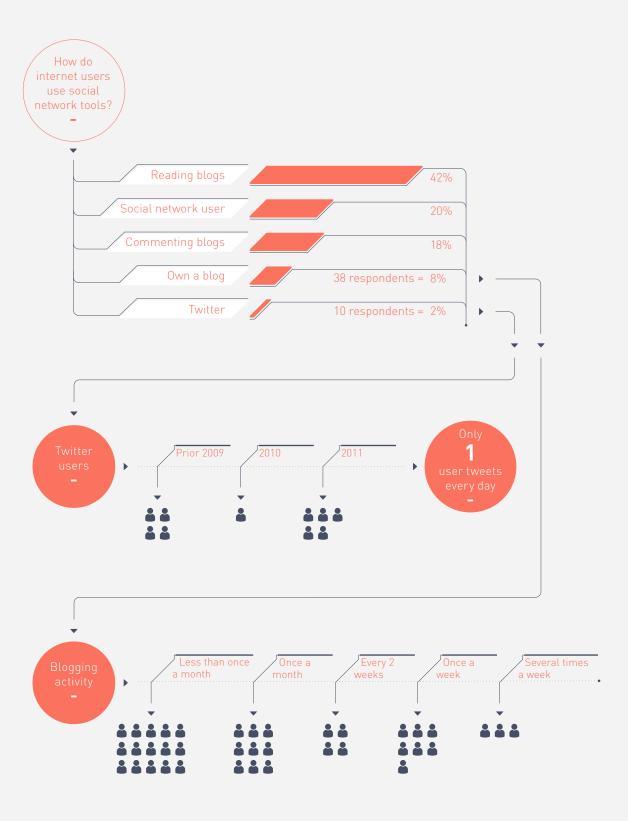


Did the interviewed Iranians use the various new media tools, such as social networks, Twitter or blogs? Or was the use of these technologies constrained to a small sample of the Iranian elite?

The questions about online activities were asked only to those who were internet users. Among the analyzed sample, more *respondents reported reading blogs* (42% of the internet users or 20% of the sample, 203 people) than *belonging to online social networks* (20% of the internet users or 10% of the sample, 99 individuals). Also, 18% of the users (8.5% of the sample, 87 people) reported *commenting on blogs*, and 8% of the users (4% of the sample, 41 people) *writing their own blog* (15 of them update it less than once a month, 9 about once a month, 4 about every 2 weeks, 7 about once a week, 3 several times a week but not every day and 2 every day).<sup>13</sup>

Twitter was, as of early this year, the least prevalent new media tool (used by 10 respondents – 2% of internet users, 1% of the entire sample). This finding is directly parallel to the BBG's 2012 study which also found that 2% of users accessed the internet to use Twitter. Among this small group, half joined Twitter about a year prior to the interview,10% about 2 years prior and 40% have been using it for more than 3 years, which would correspond with the turbulent events following the 2009 election. Further putting the alleged power of Twitter in a sobering perspective, only one respondent reported using Twitter every day to share updates, see others' updates, or other activities. Three respondents did it once a month and the majority of this small group (6 respondents) used Twitter less than once a month.

- 11 The BBG survey (2012) reports higher percentages of access in the various sites (e.g., 80% of their respondents accessed the internet at home, 34% in internet cafés, and 28% at work, 21% at school, and 19% over a mobile phone).
- 12 The results which show that broadband connections (all types) are more frequent in Iran than dial up connections are in contrast with official figures. The Statistics Center of Iran announced in March 2012 that 85% of Internet users in Iran use dial up connection (see <a href="http://www.khabaronline.ir/detail/207053/ict/internet">http://www.khabaronline.ir/detail/207053/ict/internet</a>). The discrepancy between the Statistics Center and our results may be due to the higher internet penetration rate in major cities in which we conducted the survey (link: <a href="http://www.amar.org.ir/Default.aspx?tabid">http://www.amar.org.ir/Default.aspx?tabid</a>)
- 13 Asking about online activities in a different manner, the BBG survey found that 51% of the sample accessed the internet to 'learn about a topic,' 44% to email, 35% to find latest news. That survey also found that 16% reported posting to a blog and 13% to a social networking site.





Mobile phones were also credited with fomenting unrest after the election and correspondents in Tehran reported that *the government was preventing access to the mobile phone network*, perhaps attesting to the crucial role it was playing (see Robinson, 2009).

We thus inquired about mobile phones, attempting to tap the extent to which they were used for communication about sociopolitical issues roughly two years after the contested election.

A solid majority of the sample (91% or 931 individuals) reported having cell phones, with a majority (79% of these individuals) having used it to send text messages in the past month. The finding regarding mobile phone penetration is consistent with a recent report, according to which mobile phone penetration is 91.2% in Iran (September 2011, see <a href="http://www.hamshahrionline.ir/news-146580.aspx">http://www.hamshahrionline.ir/news-146580.aspx</a>) and with the BBG study (2012), which also finds that 90% of respondents had a working cell phone.

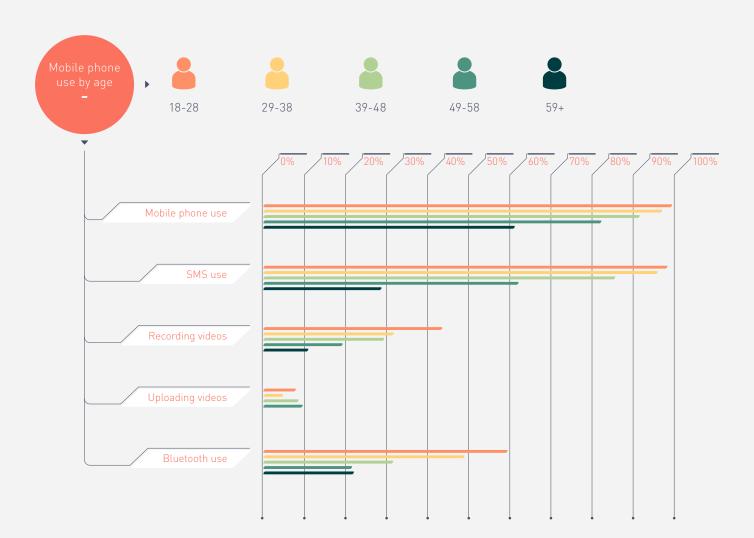


When it comes to more advanced cell phone uses, 35% of the respondents reported recording videos on their mobile phone in the past month.

Again speaking to the limited – among this systematic sample – potential of new media to spread information and mobilize citizens, only 5% of those who recorded content on their cell phones (15 individuals) uploaded videos from their mobile phone to the Internet (e.g., Youtube, Vimeo, or other online video portals) in the past month. Roughly half (48%) reported having sent or received content through Bluetooth (mostly about once a month; 30% of the users).

The use of these technologies varies by age. Figure 7 indicates that the younger demographics are substantially more likely than the older ones to have a mobile phone, send text messages, record videos on their phones, and use Bluetooth.

Figure 7



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In order to assess the political potential of new media, it is not sufficient to analyze whether people are using various platforms. It is also essential to examine the specific issues that the users communicate about via social networks, blogs, Twitter and text messages. Those who reported belonging to a social network, reading, commenting on or writing blogs, and/or sending or receiving Tweets and text messages were presented with a list of various topics, and asked to check all those they had communicated about over each tested platform during the last month.

On online social networks, most respondents discussed social (32%), personal (37%) and work-related issues (23%). At the same time, many of them talked about news (29%) and culture (30%), which – in Iran are both politically charged topics. On online blogs, news was again the most frequently sought out topic (35%), followed by sports (34%) and social issues (33%). When it comes to commenting on and writing blogs, respondents most often focused on culture and social issues (about 33%).



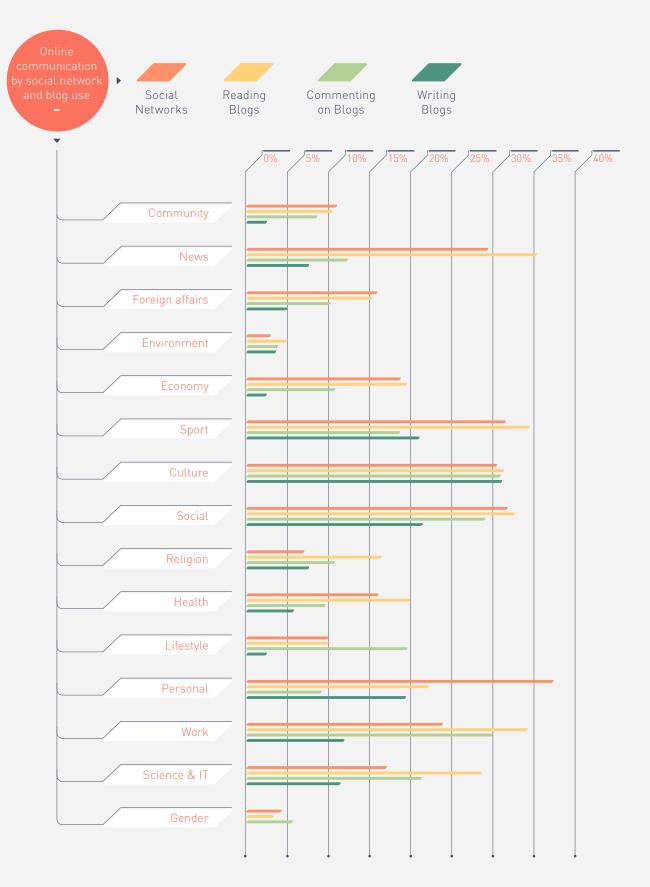
It is widely acknowledged that the Iranian authorities attempt to block and slow access to a variety of websites considered politically or culturally sensitive, creating impediments to accessing content online (see Saminejad, 2011).<sup>14</sup>

In fact, the recent Freedom House (2010) ranking ranks Iran as last in Internet freedom among the 37 countries assessed. 15

Yet, the evidence on the extent to which Iranians use circumvention tools has been limited due to the sensitive nature of the issue. Even though some circumvention tools like VPNs are widely available and frequently used in Iran, their use remains illegal.

To mitigate the unease a direct question about circumvention tool use would cause respondents, our survey probed about these issues in a non-confrontational manner, which avoided directly questioning whether respondents used any of these tools. Respondents were first asked how often they found it difficult to access information and content on the Web when they were online, such as encountering blocked or filtered websites.

- 14 The Law of Computer Crimes, approved by Iran's parliament in January 2009, has been used to prosecute and repress activists and bloggers, with 56 articles in the following categories: Immoral content, Anti-Islamic content, Anti-security and disturbing the public peace, Criminal content regarding intellectual property and audio and visual issues, Content encourages, invites or provokes others to commit criminal acts, Content against state and public institutions and their responsibilities, and Content used to facilitate other computer crimes, among others (see Esfandiari, 2011, p. 23).
- **15** As Asgard (2011) summarizes: "The IRI ranked 187th out of 199 nations in Press Freedom according to Freedom House's 2010 report on Global Press Freedom; was designated as 'Not Free' by Freedom House's 2011 Freedom in the World report; and ranked 171st out of 179 nations in Economic Freedom according to the Heritage Foundation's 2010 report on Global Economic Freedom" (p.17).



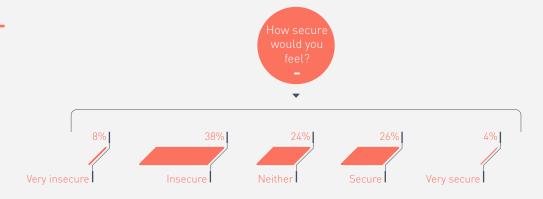
**Note:** The number of Twitter users was too small to meaningfully assess the most frequently tweeted topics.

The responses were equally distributed (16% reported that they never encounter such problems, 18% rarely, 21% sometimes, 24% often and 20% always). The survey probed further, using hypothetical language to ensure the security and safety of respondents, as well as the likelihood of answering honestly. After mentioning that some people use various online tools that help circumvent blocked websites, we asked whether respondents have ever heard about such tools. A solid majority (73.5%) have not heard about these tools. <sup>16</sup>

Among those who said they were familiar with these tools (the remaining 26.5%), a majority reported that it would be either easy (43%) or very easy (19%) to find and access such tools, 27% would find it difficult, 6.5% very difficult and 5% nearly impossible. Yet, as the figure shows, respondents would not feel very secure using online tools that help circumvent blocked websites, with nearly half (46%) reporting they would feel insecure or very insecure using them.

Figure 9

Security in using circumvention tools online



Lastly, when asked to rate their ability to use circumvention tools, respondents who have heard about them rated their ability as rather low (i.e., 22% bad, 29% poor, 28% fair, 22% good and 8% excellent).

Unsurprisingly, as our additional analyses have found, it was the younger, male, and more educated respondents who were more likely to know about circumvention tools.

Also, familiarity with these tools was higher among those who named the internet among one of the three most important news sources, those who used social

<sup>16</sup> This question is similar to the one about watching satellite television: because the tools themselves are illegal, respondents are likely uncomfortable answering questions that target their knowledge or use of these tools. The actual number of people familiar with the existence of circumvention tools is almost certainly much higher among internet users in Iran.

networks, read and commented on blogs, as well as those who thought that new media make public officials more responsive – but not necessarily among those who thought that new media increase understanding of politics among the citizenry. Interestingly, having Internet access and writing blogs were both unrelated to having heard about circumvention tools.



We also assessed the extent to which respondents thought that new media could empower citizens.

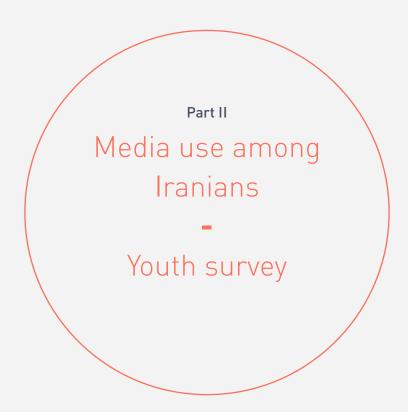
## We asked:

"Some people think that new media technologies (e.g., Internet, Twitter, mobile phones) will change the way people influence politics, others think that this is not the case. How much do you agree or disagree with the statements that 'Through the use of new media technologies, people like me can better understand government and politics' and 'Public officials will pay more attention to what people like me have to say'?"

On the one hand, the responses to the two questions were relatively evenly distributed among our sample. Notably, however, although the two items were significantly related, (those believing in the potential of new media to increase citizen understanding also believe that officials will be more responsive to the citizenry), the respondents expressed greater confidence in new media empowering them personally, rather than it making governmental officials more responsive (with the averaged responses being 3.28 versus 2.87 on a scale from 1 "Disagree strongly" to 5 "Agree Strongly" where 3 indicated "Neither agree nor disagree").

Notably, no differences emerged among the respondents with regard to age or gender about the extent to which they agreed with these statements. However, when it comes to education, those who have not graduated high school seemed to be the least likely group to think that new media will increase people's understanding (but not that officials will pay more attention to the people).





Iranians (...) are among the most sophisticated and eager consumers of information. They continue to find creative and imaginative ways to get around [governmental] limitations. Over the past three decades, particularly the younger generation of Iranians have become increasingly cosmopolitan in their outlook and have developed an insatiable thirst for global news and views. Their long-standing experience in handling state-sponsored censorship has equipped them with a keen ability to read between the lines and distinguish between genuine and manufactured information. This ability to compare and comprehend the underlying realities of communication stands out in their sense of objectivity and self-reliance manifested during the recent months of consistent uprising, both in Iran and around the globe (Ansari & Danesh, 2011, p. 8).

To offer a fuller portrayal of media use in Iran, and especially of the potential of new media for sociopolitical exchange and mobilization, the Iran Media Program conducted another survey targeting Iranian youth. To our knowledge, this is the first such study which measures this set of questions specifically among Iranian youth, especially important given the demographics of Iranian society in general and of the Green Movement protesters in particular. The link to the Persian-language survey was included on a file sharing platform (www.4shared.com) which, according to Alexa (www.alexa.com/topsites/countries/IR), is the 20th topmost visited site in Iran. 4shared, which is not filtered in Iran, has recognized the extent of their popularity amongst Iranians and provided full functionality in the Persian language. Its users can create collections of files which are then searchable in Google, effectively making it a huge database of easily searchable content. The link to the online survey was active between March and late April, 2011. Overall, 2802 respondents completed the questionnaire.



As intended by he nature of the platform on which participants were recruited, the sample was young and technologically savvy. Over 80% of the respondents were under 30 years old (14% - 18-20, 39% 21 - 25, and 27% 26 - 30). A solid majority (92%) was male, perhaps reflecting a gender gap in downloading or sharing content online. Respondents were also highly educated, with the majority (78%) having some university degree and almost 20% having an MA or a PhD. They came from Tehran province (37%), Fars (11%) and Isfahan (8%), with other provinces being less represented.<sup>17</sup>

As these characteristics suggest, the sample could represent those reformist activists who – following the 2009 election – deployed new media to effect change, allowing us to shed some light on the extent to which new media are used for political purposes. As previously mentioned, the hope would be that – once empowered by new technologies after the contested election – young Iranians would continue using new media for mobilization and exchanges about pressing political issues, especially during the turbulent events in the region in 2011. It is understood that Iranian authorities curbed the use of the internet and new media by Iranian citizens to a much greater extent than before, and that the internet and social media platforms became much more problematic after the election protests. To some extent, this survey can be said to be taking the temperature of the post-2009 new media environment in Iran.

To assure comparability, both questionnaires – the field-based and the online version – contained the same questions, focusing on media use patterns and paying particular attention to new technologies.



As before, one of the purposes of the survey was to assess where respondents turn for information about politics and current events. The survey provided twelve options ranging from friends and family, to government officials, to traditional media, and respondents could select all that applied. Because we sampled only Internet users, it is not surprising that most of them turn to the Internet for news (89%).

Television was the second most often selected source (70%), followed by friends and family (49%), print media (42%) and work or school (33%). Despite the fact that our sample was young, well-educated and mostly based in cities, governmental officials (18%) and religious leaders (10%) were also valued information sources.

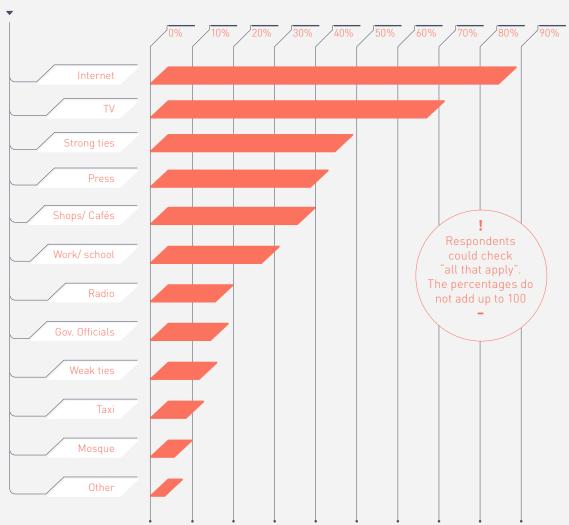
<sup>17</sup> Partly speaking to these data, the BBG survey (2012) found that 15% of females, versus 25% of males, reporting using the internet "yesterday," and that the younger demographics (e.g., 15-34) accessed it "yesterday" substantially more than the older (e.g., over 55 years old; 24% versus 9%).

Consistent with the notion of the politicized public sphere in the Arab countries, it could be expected that Iranian citizens receive information from non-conventional sources, such as other people or public spaces. Yet, and similarly to the general population sample, most respondents (87%) did not select either taxis or shops as their inform-ation sources, 10.5% relied on one of these sources and only 3% mentioned both.

This finding can again be attributed to the distinct separation of public and private space in Iran and the more strict code of conduct governing interpersonal interactions in the public sphere versus the private sphere.

Figure 10







These findings indicate that – when compared to other sources of information that were listed in this question – new media were most frequently used: only 11% did not select either the internet or text messages. In comparison, 21% of the sample did not select one of the traditional news media (TV, radio or press). At the same time, old media were still prevalent, with 11% selecting all three traditional outlets as their sources of information.

Figure 11

The most important information sources



When asked to provide a ranked list of their 3 most important sources, 56% of respondents selected the Internet as their first choice, 24% chose TV and 7% chose friends and family. TV was most often selected as the second most important source (31%), followed by the Internet (21.5%) and friends and family (14%). Strong ties were selected

as the third most important source in 19% of cases, followed by the press (16%) and TV (14%). When we collapse these data, the Internet emerges as the central outlet for news (85%), followed by television (67%) and friends and family (39%).

We also asked about the specific outlets used. Consistent with the findings from the general population survey and with the reports from InterMedia and BBG, among those for whom TV was among the three most important outlets, the most important source of news and information about politics and current events was the state-run and state-owned IRIB network (62% selected this station as one of their most important), followed by BBC Persian (55%) and Voice of America/Persian News Network(30%). Our numbers for satellite TV channels are low compared to other statistics on the topic:

"Some 45% to 60% of Iranians watch satellite TV, according to estimates from the state media company and an Iranian research center, exceeding the number believed to use the Internet." 18

It is not known why the reported use of satellite TV is so low in this survey. It is possible that the respondents were apprehensive that the survey was a covert attempt to capture whether they engaged in behaviors for which they could be later penalized (e.g., satellite use). If that is the case, the answers to this question would underestimate the actual extent of reliance on satellite TV.<sup>19</sup>

There was again a large dispersion when it comes to the most frequently accessed websites. Among those who selected the internet as the most important information source (85% of the sample or 2392 individuals), the BBC Persian website – filtered in the Islamic Republic of Iran – was selected most frequently (38% of respondents indicated that it was one of the most important informational internet sites), followed by Tabnak (27%), Balatarin (25% of respondents, also filtered), Kaleme (which belongs to reformist candidate and Green Movement leader Mir-Hussein Mousavi, also filtered – 19%), the aforementioned conservative Fars News (18%), Aftab (17%, linked to former President Hashemi Rafsanjani; although it gives coverage to various topics its main focus is politics) and Voice of America in Persian (17%, also filtered).

<sup>18</sup> It is important to note that satellite dishes are technically illegal in Iran, although their use is fairly widespread. There are some important impediments to satellite TV use, such as occasional confiscation raids, as well as jamming of satellite signals, which the regime does to BBC Persian and other satellite channels. See <a href="http://online.wsj.com/article/SB10001424052970203501304577088380199787036.html">http://online.wsj.com/article/SB10001424052970203501304577088380199787036.html</a>

**<sup>19</sup>** The high self-reported visiting of filtered websites in this report undermines this explanation for the low numbers reporting satellite TV viewing.



31



All respondents were internet users, given that the survey was distributed online. Asked where they most frequently accessed the internet, a solid majority (84%) responded that they accessed it at home, followed by work (36.5%) and university or school (33%), their cell phone (30%) and internet café (25%).

Internet use Given that the respondents were recruited on a file sharing downloading website, it comes as no surprise that broadband access over 128 kbps was the most prevalent form of internet connections (50%). This is despite the fact that according to Iranian law, users should not be accessing the internet at over 128 kbps, with some exceptions for profession, such as university students, doctors, engineers, etc. Broadband up to 128 kbps was used by 28.5% of respondents, while wimax and dial-up were equally prevalent [8%].<sup>20</sup>



More respondents reported reading blogs (92%) and commenting on blogs (70%) than belonging to social networks (68%). These statistics undergird the existence of a vibrant Persian language blogosphere, with Persian as the fourth most widely-used language on blogs.<sup>21</sup> More than half of our respondents (54%) did report writing their own blog, although only 40.5% of those with their own blog reported updating it less than once a month, 17.5% about once a month, and only 8% reported doing so every day or several times a day.

Despite the central role that Twitter allegedly played in the uprisings in Iran, it was the least prevalent new media platform used by our sample. Only 17% reported using Twitter to share or follow tweets. Among the users, most had joined in the past 6 months (34.5%), 21% had started using Twitter about a year ago and only 22% had started two years ago, which would have coincided with the contested election. When it comes to the frequency, among those who used Twitter, 33% reported sharing or following tweets about once a month. Only 11% of this group used Twitter every day and 7% tweeted or read tweets several times a day. This usage and frequencies are

20 Additionally, we analyzed who the individuals were who reported high speed internet use, and also where these users accessed the internet. The analyses found that the probability of having broadband access at over 128 kbps was higher among the younger male respondents than among the older and female respondents. Also, this probability was lower among Tehran-based users than among others (controlling for all other factors). Listing the internet as the most important information source was a positive predictor of high speed broadband access, whereas perceived empowerment via new media did not matter. Accessing the internet at home and at work was related to higher probability of high speed connection, whereas those who mostly accessed at internet cafés had a lower probability of accessing via high speed connection, despite the fact that internet cafés tend to have higher speeds. Neither university nor library access were significantly related despite the fact that university students routinely have access to higher speed internet, both at home and at university.

unsurprisingly higher than among the general population sample. Nevertheless, the prevalence and the extent to which this technologically savvy metropolitan youth uses *Twitter* is still relatively limited.

This finding supports the opinions of some observers who are skeptical of the central role played by Twitter at the time. Radio Free Europe journalist Golnaz Esfandiari noted that "[s]imply put: There was no Twitter Revolution inside Iran" (June 7, 2010, p. 1), and the manager of Balatarin said that "once you look, you see most of it is Americans tweeting among themselves" (Musgrove, June 17, 2009; see also Burns & Eltham 2009). Some Iranian bloggers further noted that "A very small percentage of those online are in Iran, yet some two million of the Diaspora are actively connected. If we look at all the [political] movements (...) many of the key players have now left the country" (Valadbaygi, quoted in Esfandiari, 2011, p. 23).

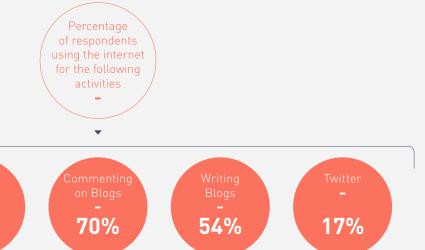


As with the general population, a vast majority of the respondents (96%) reported having a cell phone, and nearly all of those who did have one (99%) used it to send text messages in the past month (with 50% texting several times a day, 21.5% at least once a day and 20% several times a week, but not every day). When it comes to more advanced cell phone uses, about one-third of the sample reported sending or receiving content via Bluetooth, with roughly half doing so about once a month or less (48%).



68%

92%



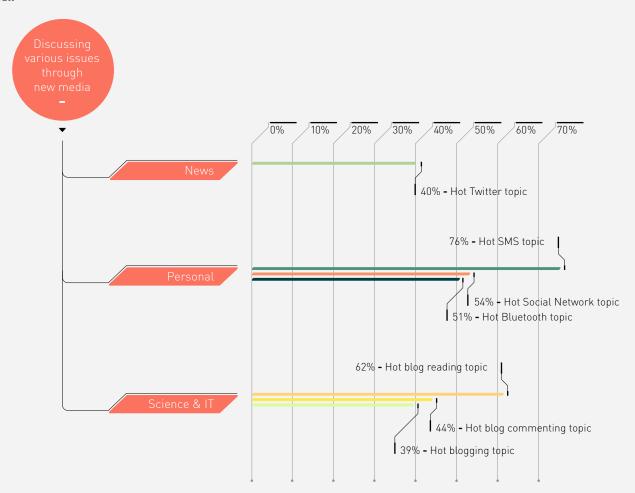


As previously mentioned, in order to assess the political potential of new media, it is essential to examine the specific issues that the users communicate about via social networks, blogs, Twitter and text messages. Somewhat surprisingly, political issues did not top the agenda despite the fact that the survey took place during the uprisings in the region. On the one hand, respondents did rely on social networks to facilitate conversations about news and current events (44%), foreign affairs (32%), community (25%), and economy (21%). Nevertheless, these issues were less prevalent than personal topics, which were discussed on social networks by 54% of respondents. Pressing social issues, such as the environment (11%) or women's rights (10%) were less often discussed there.

Politics was yet less common in the blogosphere. As **Figure 13** shows, even though the respondents reported reading blogs about news and current events, foreign affairs, or the economy, these topics were far less popular when it came to creating content in the blogosphere. Also, political topics were less popular than science/IT-oriented ones,

Figure 13

Go to figure 13 full



most often addressed when commenting on and writing blogs.<sup>22</sup> Work-related and social topics were also among the most often read about, commented on, and blogged about.

Amongst those who tweeted, news and current events (selected by 40% of Twitter users), science/IT-related issues (38%) and personal topics (also 38%) were equally important. With regard to text messages, perhaps unsurprisingly, personal topics emerged as the most prevalent subject (76%), followed by work (41%) and social issues (21%). Those who had sent or received Bluetooth contents most often transmitted content related to personal (51%), followed by social (28%) and cultural issues (25%).

<sup>22</sup> It is important to note here that the Iranian political environment is often a pervasive theme that is interwoven into all subject areas. For example, science and IT related issues are not necessarily political in many of the locations where these survey questions are often deployed, but in Iran, as in other closed societies, IT issues are very often tied to matters of free speech, internet access, discussions of blocking/filtering and VPNs or proxies, and other ways of using technology to increase freedom of expression or access to information and entertainment.



A majority of our respondents (71%) reported that they either often (38%) or always (33%) find it difficult to access content on the Web, such as encountering blocked websites. Similarly, and unlike with the systematic sample, a solid majority (79%) have heard about online tools that help circumvent blocked websites. Among those, 51.5% reported that it would be either easy or very easy to find and access such tools, but many said they would not feel secure using them (15% would feel "very insecure" and 26% "insecure"). When asked to rate their ability to use circumvention tools, most respondents rated it as either fair (34%), good (34%), or excellent (22%).

Analyses found that those respondents who used social networks and Twitter and who sent or received text messages and Bluetooth contents reported coming across blocked websites more often than those who did not use these platforms. Interestingly, blog use was unrelated to encountering blocked websites. We found that older users were less likely to express ease of access to and comfort with using circumvention tools and that males living in the Tehran area with broadband access were more likely to express comfort accessing and using circumvention tools. Telling patterns emerged when it came to new media use.

Figure 14





Two years after the election and during the upheavals in the region, we surveyed opinions among this youthful population about new media's ability to change the way people influence politics. In general, and similarly to the general population, respondents were more confident that new media could increase people's political understanding, but less confident that new media somehow make public officials more attentive to the citizenry.

Who felt most empowered by new media? We found that respondents who were both older and better educated, and those who listed the internet as one of the three most important news sources, were more confident that empower the citizenry than the younger, less educated and those for whom the Internet was not central for information. In addition, social networking, commenting on blogs, and sending text messages were positively related to the conviction that, through new media, people can better understand politics. With regard to censorship, respondents who often encountered blocked websites and those skilled in the use of circumvention tools had a greater sense that new media increase citizen political understanding than those who rarely came across blocked content and did not have the skills to circumvent the blockages.

Contrastingly, those who relied on neighbors or acquaintances for information were less confident in the political power of new media. Similarly, writing blogs – as well as relying on religious leaders for news – was negatively related to the conviction that, through new media, people can better understand politics.





When an election is over, new media habits remain. Elections have become sensitive moments in which student leaders, journalists, and civil society groups experiment with digital technologies. Even if their preferred candidates are not elected, the process of experimentation is important because, by using digital media, citizens construct an information infrastructure that is largely independent of the state. Digital media leave a lasting imprint on civil society, one that continues after elections. The Internet allows youth to learn, for instance, about life in countries where faith and freedom coexist (Howard, 2010).

Following Howard (2010), one would hope that the events that unfolded after the election in Iran in 2009 would translate into continued reliance on new media for political information and social organizing. This is especially because the uprisings in the Middle East and North Africa in 2011 also seemed to suggest that Twitter, Facebook, and mobile technologies have the potential to instigate, organize, or at least report on political organizing and sociopolitical change. Most certainly, this role was sometimes overstated, with many characterizations of the events as Facebook or Twitter revolutions, but these characterizations were often more descriptive than evidence or data-driven.

The Iran Media Program aimed to contribute to this debate twofold. Two years after the election and during the uprisings in the region, we studied a systematically recruited national sample of adult Iranian citizens. We also recruited technologically savvy Iranian youth.

We examined the news sources that were important for these two samples of Iranians, the topics they discussed via new media platforms, the experiences with and attitudes towards online censorship and circumvention tools, and also the beliefs about new media technologies having the potential to empower citizens politically.

Our results offer several notable patterns. We find that among both the general population and the technologically savvy youth, television – and especially the state-controlled broadcaster – was among the most often used news sources (with the Internet being the most important news outlet for the youth). This finding is surprising given that – in general – in Middle Eastern societies "traditional state control of the information media has often meant that more reliance is placed on oral and unofficial means of communications, in the mosque, the coffeehouse, or the market-place" (Fandy, 2000, p. 378).

This finding is especially surprising among our technologically savvy, educated and metropolitan youth the demographics of whom overlap with the profile of those who took to the streets in the post-election protests in Iran and who might be more likely to distrust the government and its sources.

These results may indicate that perhaps this young population is not uniformly politicized, mistrustful of governmental sources, or primed for revolutionary action.<sup>23</sup> Several of our other findings underlie this idea. *Contradicting the claims that Twitter played a central role in the uprisings in Iran* and despite the evidence that 90% of Twitter users in Iran live in Tehran, Twitter was the least prevalent new media platform used by both the general population and the youth samples. *This finding may suggest that the role played by Twitter was overstated to begin with* (see Lynch, 2003). At the same time, it may be the case that Twitter was more frequently used two years prior, and its sociopolitical role has simply diminished since then.

Recent surveys (e.g., the BBG's 2012 survey) find patterns regarding satellite use, viewership of the IRIB, and trust in the IRIB, underscoring the complexity of Iranian television consumption patterns, and necessitating further research into what kinds of programming are sought out at what times, and on which channels, whether domestic or international. The IMP's position is that the Iranian public, like many publics living in countries where there is investment in controlling the flows of information internally and externally, is sophisticated in its approach to news and information, triangulating

<sup>23</sup> It also might indicate, however, the degree to which the Iranian public is uncomfortable answering questions about the use of satellite television because of satellites being technically illegal and regularly seized in seasonal crackdowns.

from several sources which all have their various biases, and turn to entertainment, sports, religious and cultural programming on a range of different outlets.

Further, we find that in 2011 and 2012, politics was not topping the agenda in the "new media sphere" as accessed and created by our samples. Again, although new media use habits may have differed immediately before and after the election, the detected patterns are telling. They suggest that the potential mobilization via new media has not continued and/or was not substantial to begin with (see Lynch, 2003).

All in all, neither the general population nor the Iranian youth sampled here were particularly interested in using blogs, text messages, Twitter or Bluetooth to communicate political issues, instead discussing personal topics, new technologies and work-related affairs.

An additional pattern merits mention with regard to internet speed access and circumvention tools. Despite the legal restrictions on internet speed, the technologically-savvy youth sample was using high speed internet in much larger numbers than anticipated. This cohort was accessing higher than expected speeds at home and at work, which is somewhat surprising given that it is internet cafés that tend to have higher speed access as well use proxy servers to enable visiting sites such as Facebook. Based on anecdotal reports and an interview with an ISP manager in Iran, the 128 kbps limitation is not enforced across all ISPs. The manger indicated that most large ISPs, including the one with whom the IMP spoke, sign contracts with customers for 128 kbps, but in actuality, provide 512 kbps. As mentioned previously in the report, there are also exceptions on the books for university students, doctors, engineers, and other professions who can justify the need for higher speed access, and they can receive up to 2 mbps.<sup>24</sup>

There seems to be a relative dispersion when it comes to problems accessing online content on the Web, such as blocked websites, with the technologically savvy sample reporting more problems than the internet users among the population. Similarly, it is the Iranian youth who are more skilled and familiar with using various online tools that help circumvent blocked websites. This suggests that while the knowledge about circumvention tools is probably more widespread among the Iranian society than our results indicate (due to low self-reporting), being comfortable accessing and using

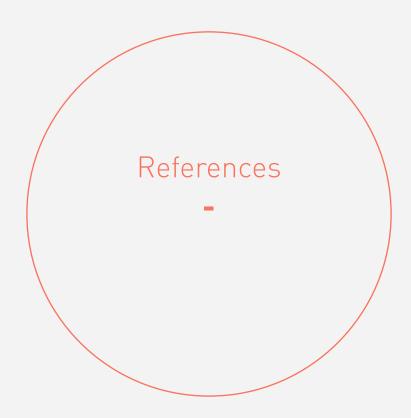
<sup>24</sup> There is an important multiplier effect at work with those that are able to obtain high speed internet. One university student, or one engineer can provide his or her entire household and extended family with high speed internet if used on a home computer, which is frequently the case.

circumvention tools is rather constrained to a small group of the most technologically skilled. Alternatively, this finding underscores the degree to which members of the population are not comfortable admitting in a face-to-face interview context that they have heard and would know how to access circumvention tools.

Hence, although the IMP questionnaires implemented a novel question approach to get at sensitive topics such as satellite use and circumvention tools, it seems that respondents still under-report their use of and familiarity with these technologies, suggesting the need for even more accurate and novel ways of approaching these crucial topics in survey instruments that attempt to gauge propensity of use. Such studies would make a substantial contribution to methodological approaches to survey research in closed societies, and move us yet closer to understanding the nuanced interplay of factors that together create the patterns of media use, content creation and self-expressions in sociopolitical contexts where all of these meet substantial limitations.

We hope that our studies, and the overall IMP project, will move us closer to understanding these complex realities.





Asgard, R. (2011). Beyond the Electronic Curtain. In Iran Human Rights Review: Access To Information Danesh T. & Ansari, N. (Eds). The Foreign Policy Centre. Available at http://fpc.org.uk/fsblob/1369.pdf

Ansari N. & Danesh, T. (2011). Introduction and Policy Recommendations. In Iran Human Rights Review: Access To Information Danesh T. & Ansari, N. (Eds). The Foreign Policy Centre. Available at http://fpc.org.uk/fsblob/1369.pdf

Azarmehr, P. (2011). Islamic Republic's Approach to the Latest Persian Entertainment Television. In Iran Human Rights Review: Access To Information Danesh T. & Ansari, N. (Eds). The Foreign Policy Centre. Available at http://fpc.org.uk/fsblob/1369.pdf

Baavur-Hendelman, L. (2007). Promises and perils of Weblogistan: Online personal journals and the Islamic Republic of Iran. The Middle East Review of International Affairs, 11(2).

BBC Persian TV (29 February 2012). Available at http://www.bbc.co.uk/persian/iran/2012/02/120229\_l03\_bbctv\_audience.shtml

BBG/Gallup (June, 2012) Research Series Briefing: Iran Media Use.

Available at http://www.bbg.gov/wp-content/media/2012/06/BBG-Iran-ppt.pdf

Berkman Center Workshop on Iranian Blogosphere (September 6, 2007). Harvard University. Available at http://cmes.hmdc.harvard.edu/node/789

Bucar, E & Fazaeli, R. (2008). Free speech in Weblogistan? The offline consequences of online communication. International Journal of Middle East Studies, 40(3), 403-419.

Burns, A. & Eltham, B. (2009). Twitter Free Iran: an evaluation of Twitters role in Public Diplomacy and Information Operations in Iran's 2009 Election Crisis.

In: Communications Policy & Research Forum 2009, University of Technology, Sydney.

Policy & Research Forum, University of Technology, Sydney.

Available at http://vuir.vu.edu.au/15230/

Christensen, C. (2011). Twitter Revolutions? Addressing Social Media and Dissent. Communication Review, 14:3, 155-157.

Dabashi, H. (2010). Iran, the green movement and the USA: The fox and the paradox. New York, NY: Zed Books.

Esfandiari, G. (June 7, 2010). Misreading Tehran: The Twitter Devolution. Foreign Policy. Available at http://www.foreignpolicy.com/articles/2010/06/07/the\_twitter\_revolution\_that\_wasnt

Esfandiari, N. (2011). Censorship. In Iran Human Rights Review: Access To Information. Danesh T. & Ansari, N. (Eds). The Foreign Policy Centre. Available at http://fpc.org.uk/fsblob/1369.pdf

*Fandy, M.* (2000). Information Technology, Trust, and Social Change in the Arab World. Middle East Journal, 54, 378-394.

Gladwell, M. (2010, Oct. 4). Twitter, Facebook and social activism. New Yorker. Available at http://www.newyorker.com/reporting/2010/10/04/101004fa\_fact\_gladwell?currentPage=all

Granovetter,, M. (1973) The Strength of Weak Ties. American Journal of Sociology, Vol. 78, No. 6 (May, 1973), pp. 1360-1380

Hofheinz, A. (2011). Nextopia? Beyond Revolution 2.0. International Journal of Communication 5, Feature 1417–1434.

Howard, P. (December 18, 2009). Inside the Cyberwar for Iran's Future. Miller-McCune. Available at http://www.miller-mccune.com/culture/inside-the-cyberwar-for-iran-s-future-6535/

Howard, P. (January 25, 2010). The Lasting Impact of Digital Media on Civil Society. U.S. State Department Global E-Journal, available at http://www.america.gov/st/demo-cracyhr-english/2010/January/20100126140433mlenuhret0.8288081.html

Howard, P., Duffy, A., Freelon, D., Hussain, M., Mari, W., & Mazaid, M. (2011). Opening Closed Regimes: What Was the Role of Social Media During the Arab Spring? Working Paper. Available at http://pitpi.org/index.php/2011/09/11/opening-closed-regimes-what-was-the-role-of-social-media-during-the-arab-spring/

Howard P. & Hussain, M. (2011). The Upheavals in Egypt and Tunisia: The role of digital media. Journal of Democracy 22, 35-50.

InterMedia / BBG (IARP) (2009). Persian News Network & Radio Farda Programming to Iran – Survey Results.

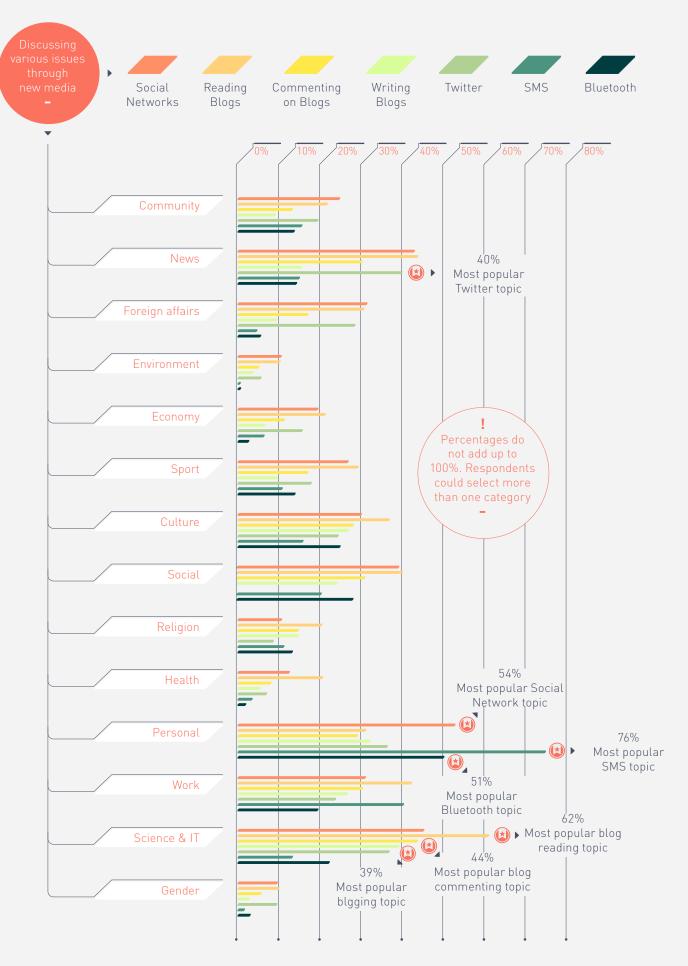
Kelly, J. & Etling, B. (April, 2008). Mapping Iran's Online Public: Politics and Culture in the Persian Blogosphere. Internet & Democracy Case Study. Berkman Center Research Publication No. 2008-01.

Lynch, M. (2003). Beyond the Arab Street: Iraq and the Arab Public Sphere. Politics & Society 31, 55–92.

Morozov, E. (2011). The Net Delusion: The Dark Side of Internet Freedom. New York: Public Affairs.

Moshiri, N. (2011). New Media Technology and the Uprisings in Iran and Tunisia. In Iran Human Rights Review: Access To Information Danesh T. & Ansari, N. (Eds). The Foreign Policy Centre. Available at http://fpc.org.uk/fsblob/1369.pdf

Rahimi B. (2011): The Agonistic Social Media: Cyberspace in the Formation of Dissent and Consolidation of State Power in Postelection Iran. Communication Review, 14:3,158-178.



Note: The "social" category was accidentally omitted as a response option for Twitter.

## Appendix 1

Recruitment procedure for Field-based study

## Sample size in each selected town





- Sampling frame was the map of the selected town with the boundaries created around areas of 2,000 households or approximately 10,000 inhabitants.
- 100/40/30 areas were selected by a systematic sampling method.
- In each area, a starting point in the North West Corner was selected.
- The rule for sampling was visiting 5 households from the starting point then skipping two households to the left.
- If the selected household was locked or did not respond, the interviewer moved to the next household.

- In each household, one member at least 18 years old was selected using Kish grid, serialized as per age, for the main interview.
- If the selected member was not available, an attempt was made to contact the person two more times before resorting to substitution.
- If necessary, substitution was done either in the same household or in another household within roughly 3 years of age range (assuring that the respondent was over 18 years old).
- Only one interview in the household was conducted as the main interview.
- The main interview was administered after obtaining the appointment at a mutually convenient time.
- The interview was administered face-to-face at home.