The Internet in Iran: More Freedom in the Country?

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Iran is one of the most insular and repressive countries in terms of human rights, to the point that its leader was recently awarded the dubious honor of Dictator of the Year for 2009.[1] Iran consistently ranks on the list of countries deemed "enemies of the internet"[2] and is one of the most dangerous places for bloggers given the extreme restrictions on free use of the internet, including detailed legislation, strict enforcement, infrastructure limitations, and the arrests of users. These join the general restrictions on media and freedom of expression throughout the country.

Nevertheless, in terms of the widespread use of the internet in the country, Iran is undoubtedly an internet superpower. Today a great deal of information makes its way into Iran from around the world to a large population that is hungry for information. There is a young, educated, technologically oriented population that quickly adopted the internet when it reached the country in 1987.[3] Internet penetration in Iran has reached 49 percent, an increase of around 12,800 percent over the last decade; most of the increase in use has occurred in the last three years. This compares with an average internet penetration level for the region of around 28 percent and a rise of only 1,650 percent.[4]

Like the rest of the world, Iran has experienced a wave of media technologies over the years. During Khomeini's exile, audio tapes of his sermons and speeches were smuggled into the country. In subsequent years, the roofs of the cities became covered with satellite dishes. Today the internet is the main and almost exclusive means of communication

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for many groups in the country. It has found its way into several sectors of the population and is used in different ways by different groups, from governmental bodies to social networks in the general public to Iranian hackers who routinely break into websites of all types around the world.[5]

As in many countries in the region, there is some ambivalence in the Iranian government with regard to the internet. On the one hand there is a desire to advance technology in the country and put it to good use. The June 2009 presidential elections were a vivid example of the importance the government attaches to the internet. All four candidates made use to some degree or another of personal websites and blogs and the social networks (Facebook, Twitter, YouTube, Flickr, Picasa), and enjoyed the online activity of their supporters. For example, bloggers reported on the mood on the street, posting pictures and even posting various clips of events supporting the different candidates on YouTube.

On the other hand, there is close control of the media and the internet, action against internet providers, websites, users, and owners of websites that exceed the clearly defined boundaries. The heightened sensitivity that regularly exists with regard to internet management and popular internet use increases appreciably during an election campaign, which is often a time of change, if not crisis.[6] At such times over the years there has been a clear increase in restrictions on freedom of the internet and other media: the elections for the local authorities in February 2003, the parliamentary elections in February 2004, elections for the local authorities and the Council of Experts in December 2006, and the presidential elections in June 2006 and June 2009, as well as in their aftermath. In Iran there is legislation that limits use of the internet, oversees internet service providers and their customers, blocks websites, determines the nature of permissible and prohibited content, and mandates the arrest of different users.

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Can the internet serve as a catalyst for creating greater freedom in the country? In view of the strict limitations in place in Iran on freedom of the press, the internet has become an important tool in the country, a would-be stage for outlawed newspapers and a means of expression for reformist elements in place of their banned publications. It comes as no surprise

to learn that the blogging community in Iran is the largest in the world. Consequently, however, as part of its close control of various media, the government in Iran is keen on regulating internet activity, determining and controlling its use in the country. Thus even if the internet alone cannot generate regime change, Iran, like other centralized countries in the region, finds the internet an enormous challenge and a potential for opposition to its legitimacy. Evidence lies not only in ongoing reports on events following the presidential elections in June 2009, but also in reports that the authorities closed down the internet in Iran for two days prior to the annual Student Day events, which this year were held on December 7, 2009. Authorities feared that the internet would provide a means of incitement against the government and become a source for reports on such events. This was undoubtedly a lesson learned from events surrounding the presidential elections.

Supervision

In its earliest stages in Iran the internet was not regulated, but as its popularity grew the authorities began to oversee it. Despite the official claim that the oversight was necessary to protect the public from immoral material, the censorship soon turned to political channels. Iranian government policy now includes legislation that limits the use of the internet and mandates supervised implementation of these official limitations.

Private internet service providers (ISPs) began to operate in the country in 1994, although they require approval by the Ministry of Intelligence and the Ministry of Culture and Islamic Guidance and must use technical mechanisms to block websites and e-mail, if necessary. In 2004 at least twelve ISPs around the country that did not install such mechanisms were closed down. In addition, their managers were forced to comply with various strict conditions[7] and were made responsible for the content distributed through them. They are required to store information about those who use their services, including the IP addresses, and to report this to the Ministry of Communications upon request. Regulations explicitly

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prohibit the construction of websites that include certain data or perform any of a well defined range of operations.[8]

In mid-2001 approximately 100 ISPs in Iran protested against the unfair competition mandated by the Ministry of Communications, claiming that although the government defined itself as reformist, the ministry refused to supply private providers with additional telephone lines. A similar claim was made then by owners of internet cafes after the authorities closed down over 400 of them (out of 1,500) in Tehran alone,[9] demanding that they obtain licenses in order to be able to continue operating (although it was also claimed that these licenses were not even available at the time). Notwithstanding claims that Iran's telecommunications company (TCI) was behind the move to prevent losses because of the reduced prices of international calls made through the internet, a source in the company said that the purpose was to combat websites with content "that was out of keeping with the values of Islam."

Infrastructure

For many years Iran has invested in the field of technology and information systems, both for general use in the country and for regime requirements. Government efforts include involvement in various initiatives and projects around the country and improvement of the telephone infrastructure through various means, such as investment in communications and information systems, exhibitions and conferences, and other measures. At the same time, the Iranian government's control of communications and the communications infrastructure enables it not only to limit internet use and traffic but also to monitor user activity and trace and arrest users. Internet providers are obliged to communicate via Iran's communications company, which is controlled by the state.

In recent years fiber optic-based communications lines have been installed in the country, but the work was stopped due to legislative constraints that limited the internet speed in the country. This was defended in May 2008 by the minister of communications, who claimed that there was no need for faster internet speeds in the country. Thus Iran became the only country in the world that limits internet speed for private use. Even prior to the elections of December 2006 the internet use speed was limited so that it did not exceed the very low speed of 128 Kbps. This was in order to make it difficult for young people to download

Western audio and video files and to communicate with each other and with reformist elements, and to publicize them on the internet.

In addition, it was revealed that in 2008 Nokia Siemens Networks (NSN) installed a communications system in Iran that allows the government to monitor cellular and online activity of users.[10] It was further reported that users were arrested, and after their release it was reported that during their interrogation they were shown data about telephone calls that were made and text messages that had been sent.

For the purpose of blocking the websites Iran initially used SmartFilter software made by an American company (which claimed that it did not sell this software to Iran);[11] this was due to the efficiency of the foreign software compared with the locally manufactured software.[12] However, in recent years local companies began to supply hardware and software for blocking websites. Iran thereby became the only country aside from China that blocks the internet extensively using local technology.

In the week after the June presidential elections, traffic on the internet entering and exiting Iran plummeted by 50 percent. This indicates official intervention in reducing traffic and blocking websites. In addition, "these figures show with almost complete certainty that instead of disconnecting Iran entirely from the internet, the country's authorities elected to block certain applications selectively." Moreover, "their internet mechanism is so centralized that you don't need more than 2-3 people in order to disconnect the country completely within a short period of time. All you need to have is someone who disconnects the two optic cables that connect Iran to the internet."[13]

Legislation
In addition to the infrastructure restrictions on communications and the internet, the Iranian regime has for some years been determined to set various legislative boundaries on free use of the internet, to the extent of requiring registration of websites with the appropriate authority and acquisition of a license to operate them.

The starting point for communications legislation in Iran is the 1986 Journalism Law, which governs communications in the country and the boundaries of freedom of expression. In 2000 the websites were included in this law in an amendment that referred to electronic advertising. In May 2003 the attorney general announced the appointment of a

committee designed to address internet offenses and warned that people who upload content onto websites built in Iran will be taken to court if they do not honor the constitution and the Journalism Law, in the absence of an internet law. In July of that year a list of dozens of political websites, blogs, and avoidance sites was released. It was claimed that the government had instructed all internet and content providers in the country to block them.[14]

In June 2004, several months after the parliamentary elections, the spokesman for the Ministry of Justice said that the Supreme Cultural Revolution Council (SCRC) was drafting a penal law for internet crimes that mandated imprisonment penalties for advertising information that is damaging to the security of the country, criticizes the country and its leaders, speaks out against the words of Khamenei and Khomeini, and sells or buys alcoholic drinks. This law mandates prison terms of up to three years for advertising information that is damaging to the security of the country and six months for advertising "inaccurate information" about government officials.[15] In addition, the internet access providers would no longer be considered the exclusive authority for blocking websites.

In late 2004 and early 2005, between the parliamentary elections and the presidential elections, a number of government members cited the need for judicial attention to new offenses, with the emphasis on hacking. They also cited the need to pass a special law on blogs, because the printed media laws did not provide a solution for internet issues and especially the large number of blogs. A group of representatives of cultural and security bodies called on the Ministry of Islamic Guidance to identify and register all the websites operated from within Iran with a view to guaranteeing a mechanism for supervision and control of the local sites.[16]

On November 27, 2006 (shortly before the December elections that year) the government published regulations whereby site owners were to register their sites with the authorities. Two years later the Ministry of Culture and Islamic Guidance determined that any local site not registered with the ministry would be shut down.[17] Thus according to the law on online crimes, ISPs were required to ensure that no "forbidden" content would be displayed on their servers, and if such content appeared, it would be stored for documentation and reported to the

authorities, and access to this content would be prevented. Companies that did not act in accordance with the law would be punished and their activity suspended.

In April 2009 the parliament approved another amendment to the 1986 Journalism Law, which facilitated application of the Journalism Law to online content. "The rules determined in the Journalism Law are valid for communications sites and local sites and set out the rights, duties, legal protection, crimes, penalties, judicial authority, and trial procedure." In other words, sites are required to submit a license prior to publication.[18]

Blocking Websites

Along with infrastructure-related intervention and legislation, Iran's government is also highly active in the practical aspects of blocking websites by means of a central filtering and blocking system. This system replaces a previous method, whereby each internet provider in Iran implemented the government's instructions in one way or another, which led to a variety of blocking methods by providers and different websites. As site blocking took place at the ISP level, censorship was not consistent throughout the country. Thus, the government engaged the services of Delta Global, in order to put to an end the "anarchy of internet providers."[19]

These measures have been backed by the country's leadership that claims that sites with "pornographic and immoral" content[20] are blocked, as are "political sites that harm the country's political and religious leaders."[21] Blocked sites include local and foreign news sites, online community sites,[22] pornography,[23] reformist sites,[24] and sites about women's issues. For instance, prior to the elections in December 2006 it was reported that a number of Western sites had been blocked, including the New York Times, IMDB, Wikipedia, YouTube, and Amazon.[25] In September 2007 it was reported that the authorities had blocked a number of foreign sites, including the Google search engine and internet-based postal service.[26] In the months leading up to the presidential elections in June 2009, foreign communications sites were also blocked.[27] In addition, sites of reformist elements in Iran are blocked; during the elections for the local councils in February 2003 a site that identified with them was blocked,[28] and ahead of the parliamentary elections in February 2004 other sites were shut down. In advance of the December 2006 and June

2009 elections, a number of independent sites that criticized the president and treatment of women were also blocked.

Emphasis has consistently been placed on blocking sites on political grounds, as well as blocking sites with forbidden, i.e., of questionable moral content, and sites with the means for bypassing these constraints on the internet.[29] Recently, efforts have increased to block different social networking sites, including Facebook, Twitter, YouTube, Flickr, and others that have become enormously popular among users in Iran, particularly during the protests following the June 2009 presidential elections. In addition, because of the increasing circulation of local blogs,[30] which serve as a primary means for people in Iran to share information and reports, particularly during times of crisis and change, the government has made a great effort to block them, along with blog hosting sites or sites providing them with services.[31]

In 2003 it was reported that around 10,000-15,000 sites were blocked in Iran.[32] In September 2006 a quasi-governmental information technology company claimed that some 10 million web sites were blocked and that 90 percent of them contain "immoral" content. Finally, a study conducted between 2008 and 2009 on five Iranian ISPs confirmed that Iran continues to be one of the leading countries that prevent their citizens from free access to the internet.[33]

Arrests

The Iranian government has adopted a far reaching policy of arresting reporters, internet users, and bloggers, although in general the government has pursued specific individuals more than it has conducted mass arrests. Most of those arrested are bloggers and different writers who express reformist opinions and the technical people running the sites. The authorities generally desist from taking action against the political leaders in whose name the sites operate.

The government is particularly sensitive to internet activity during election periods. The first wave of arrests of users began in the weeks leading up to the local council elections in February 2003, when a blogger and news site editor were arrested after they criticized the regime, and a number of arrests were carried out in the weeks following the elections. The second wave began in May 2004 (after the parliamentary elections in February) with the arrest of another blogger. This wave continued until a

few months before the presidential elections in June 2005: arrests were made in June and August 2004, with most carried out between September and November 2004. An additional wave occurred during September-October 2005. Approximately a year before the 2009 presidential elections another wave of arrests began. From early November 2008 a number of bloggers were arrested on charges of attacking the government and the country's leaders, and a blogger called Omid Raza Mirtzifi died in prison on March 18. After the elections and following demonstrations by Mousavi supporters, hundreds of demonstrators were arrested, when the Amnesty International human rights movement released a list with the name of 368 detainees – evidence of the regime's anxiety over the domestic protests.[34] It was reported that most of the detainees were subjected to harsh conditions and torture during their imprisonment,[35] but released after a relatively short time – a few weeks or months. The number of arrests increases with the scale of the events, and the term of imprisonment also increases.

Conclusion

Iran is a clear example of the power of the internet to generate social and political change towards freedom of expression and freedom of the individual. It offers a wide infrastructure for knowledge, information, communications, and computers with regard to technology and communications, and helps create an educated public striving to obtain information and exchange views, both inside the country and from abroad. Approximately half the country's population currently uses the internet. The internet has become a highly efficient tool for enhancing the transfer of information inside and outside Iran, and serves as an alternative channel for bodies whose voice in not heard through other media.

Over the last decade the internet has served as an increasingly important forum for the opposition elements and marginal groups in Iran, particularly because of the strict limitations on communications in the country. The internet allows them to obtain information and, most importantly, to disseminate it around the country and around the world, achieving a far wider and more accessible circulation than via older means of communications. They are able to harness public opinion and the masses to their cause, both at home and abroad; during demonstrations,

they serve as a means of reporting events on the streets in real time, and even as a sort of "insurance policy" for bloggers and human rights activists, who not only report their personal opinions, but also publicize movement ideas and even their own arrest when it happens. In such cases the internet is utilized for global support campaigns to free the detainees, and in this way the government loses its ability to have opponents of the regime "disappear" or to bury their arrest. The internet also offers a large number of websites, software, and tools designed to allow for anonymous use, in order to obviate the possibility of identifying the users, monitoring their activity, and arresting them.

A clear example of the power of the internet as a social and political tool in Iran is the events surrounding the presidential elections in June 2009. The internet did not create an alternative to the country's existing leadership, but it served as an extensive and widely available forum for the only political opposition in Iran today, led by Mousavi and his supporters. The internet as such became a hero of the events of the elections, before the elections and in particular in the events that followed. The social networks were both the exclusive means for reporting by the demonstrators and the technological symbols of these events. Not only did YouTube upload a clip showing Neda Sultan documenting her final moments after being hit by a bullet, but by transmitting the event around the world it turned her (and consequently the social networks) into the heroes of the struggle. In turn the internet was not only a source for reporting on events on the capital's streets and rooftops but also a means of enlisting local and international support.

Due to the internet's central role calling for a new social and political order in the country, and in order to limit freedom of expression, protest, and action by opposition elements as much as possible, the administration in Iran has made sure to limit the possibility of online expression. Even greater efforts were made in this regard during elections, which are tests for the stability of the regime in its current format. As such, it is doing everything it can to monitor and contain these online dangers as well as the challenges of other arenas.

To date the internet has not brought civil liberties to Iran. However, in view of the two contradictory trends − protest in the face of oppression − that have been on a collision course for some time, it is expected that limitations on the internet, freedom of the individual, and freedom of

expression will cultivate resistance among Iranians, among them, internet users. Therefore, it is conceivable that that as the internet and the hope for freedom continue to pervade the country in the face of a conservative regime trying to safeguard its power on all fronts, the streets of Tehran will witness more violent events, like those of June and July 2009.

If at some point there is a popular uprising in Tehran that brings greater freedom to the country and loosens the population's shackles, the internet will play a central role. This will happen first and foremost as a systemic factor and as one of the forces generating the process, harnessing support at home and abroad among opponents of the regime and enhancing claims against the regime's legitimacy while suppression by the regime increases. The internet will play a key role by reporting events in near or real time, and will also be a means for obtaining information and recruiting international support during the struggle for freedom.

The governments in Israel and elsewhere in the world must be aware that there is a wide sector of the public in Iran that is thirsty for information and change, and that seeks recognition of its struggle and support both inside and outside the country. The internet is a major and occasionally exclusive means of communication in Iran, and consequently it can act as a direct and two-way means of communication for the protestors on the streets as well as various marginal groups that do not have access to the older means of communications.

As long as the struggle does not escalate, the current regime will feel confident in its power. The shah's regime fell partly because while it enjoyed the support of other countries, it lacked support at home. Yet while the internet can be used to form a support base for the opposition inside and outside the country, the world's governments must take care not to embrace the protestors too closely so as not to create a situation in which they are viewed as agents of the West and vassals of foreign governments, in which case the West and the protestors would lose rather than gain.

Notes
1   "One day before the Nobel Prize, Who Won the Dictator of the Year Award?" Ynet, December 9, 2009, http://www.ynet.co.il/articles/0,7340,L-3817840,00.html.
2   Reporters without Borders, "Iran," March 12, 2009, http://www.rsf.org/article.php3?id_article=26154&Valider=OK.

3   For a detailed article about the development of the communications and in-
    ternet industry in the country, including history, structure, and various key
    elements, see Open Research Network, "Iran's Telecom and Internet Sector:
    A Comprehensive Survey," Document number 102-101-01/105-101-01 Re-
    lease 1.0, July 15, 1999, http://www.science-arts.org/internet/internet.html;
    and Payman Arabshahi, "The Internet in Iran: A Survey," iranian.com, June
    9, 1997, which contains mostly technical information about the beginning of
    the internet age in Iran, http://www.iranian.com/WebGuide/InternetIran/
    InternetIran.html.

4   In the first half of the decade the rate of increase of internet use in Iran
    was 2,100 percent, although the rate of penetration was only 8 percent (as
    a regional mean). In 2008-2009 the rate of increase was 100 percent, with a
    penetration level of 35 percent. Internet World Stats, "Internet Usage in the
    Middle East," http://internetworldstats.com/stats5.htm.

5   "Iranian Hackers Break into the Cameri Website," *Haaretz*, December 18,
    2009, http://www.haaretz.co.il/captain/spages/1136094.html.

6   Tal Pavel, "Before the Elections: Iran Closes the Web," Channel 2 News, June
    9, 2009, http://www.mako.co.il/news-columns/Articledd7d7c9ef13c121004.
    htm&sCh=31750a2610f26110&pId=1636680445.

7   They must have Iranian citizenship and be faithful to the constitution of the
    Islamic republic, belong to one of the religions recognized by the constitu-
    tion, have technical skills and a required academic degree, be at least 25
    years of age, be free of any moral defect or criminal record, and must not be-
    long to an anti-revolutionary organization or support one. Those convicted
    of action against internal or external security or those who are known to be
    activists against the country are prohibited from being ISPs, http://www.dci.
    ir/data4.asp.

8   Anti-Islamic material; harming Islam; information that contradicts the
    constitution or impacts on the independence of the country; causing harm to
    the leader; harm to the sanctity of Islam and the values of the Islamic revolu-
    tion or the political ideology of Khomeini; destabilizing national unity and
    harmony; infringing on the legitimacy and efficiency of the Islamic system
    in the public; publicizing the affairs of illegal groups or parties; publiciz-
    ing government documents or documents connected to national security,
    the army or the police; publishing immoral images; encouraging the use of
    cigarettes or narcotics; libeling public officials and insulting officers of the
    law; exposing private matters and breaching the privacy of political figures;
    publicizing computer passwords or means of obtaining such information;
    illegal commercial transactions through the internet such as counterfeiting,
    embezzlement, gambling, sale, purchase, or advertising of illegal goods; any
    illegal entry to websites that contain private information and any attempt
    to crack passwords that protect computer systems; any attack on websites
    that belong to other people in order to prevent or slow down their activity;
    an attempt to monitor data on the networks; establishing radio or television

networks without permission from the responsible party. "False Freedom: Online Censorship in the Middle East and North Africa," *Human Rights Watch* 17, no. 10 (E), November 2005, pp. 48-49. http://hrw.org/reports/2005/mena1105/mena1105noappendices.pdf.

9   Nua Internet Surveys, "Crackdown on Cybercafés in Iran," *Financial Times*, May 15, 2001, http://www.nua.ie/surveys/index.cgi?f=VS&art_id=905356762&rel=true. However, an article from November 2002 indicates that there were once again 1500 internet cafes in the capital. Nua Internet Surveys, "Internet Use on the up in Iran," Madar Research Group, November 6, 2002, http://www.nua.ie/surveys/index.cgi?f=VS&art_id=905358529&rel=true.

10   "Siemens and Nokia Help to Develop the Censorship System in Iran," *The Marker*, June 22, 2009, http://it.themarker.com/tmit/article/7119.

11   For details of the statement made on this matter by the general manager of the company John McNulty from June 22, 2005, see OpenNet Initiative, "Internet Filtering in Iran in 2004-2005," http://opennet.net/sites/opennet.net/files/ONI_Country_Study_Iran.pdf.

12   Stop Censoring Us, "Iran Government Uses American Filtering Software," 24 January 2005. See http://www5.geometry.net/detail/basic_i/iran_government_page_no_2.html. For a description of the filter software developed by Iran, see: *Stop Censoring Us*, "'Intelligent Filter' Developed," November 12, 2004.

13   "Internet Traffic from Iran Shows: The Authorities Intervened," *The Marker*, June 21, 2009, http://it.themarker.com/tmit/article/7103.

14   Editor: Myself, Hossein Derakhshan's English Weblog on Iran, Technology and Pop Culture, "Latest Blacklist," January 21, 2003, http://web.archive.org/web/20070819233727/http://hoder.com/weblog/archives/007715.html.

15   Committee to Protect Journalists, "Attacks on the Press 2004: Mideast – Iran," http://cpj.org/2005/03/attacks-on-the-press-2004-iran.php.

16   Stop Censoring Us, "Government to Probe Local Sites," December 8, 2004,

17   Reporters Without Borders, "Iran," 12 March 2009, http://www.rsf.org/article.php3?id_article=26154&Valider=OK.

18   OpenNet Initiative, "Internet Filtering in Iran," http://opennet.net/sites/opennet.net/files/ONI_Iran_2009.pdf.

19   Red Herring, "Iran Tightens Web Filters," October 24, 2004, http://www.redherring.com/Home/14130.

20   Aaron Scullion, "Iran's President Defends Web Control," BBC News, December 12, 2003, http://news.bbc.co.uk/1/hi/technology/3312841.stm.

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22 Stop Censoring Us, "Orkut 'Filtered,'" January 5, 2005,.http://stop.censoring.us/archives/013107.php/.

23 The ten most popular sites in Iran are connected with sex: al-Quds Arabi, "Alkhakuma Fi Teheran Tashen Hemla Tatthir Lalamuaka Alabakhia WeAlasiasa WeTa'alek 100 Elf Muka Ajanbi." Already in August 1995 a local network was closed down, apparently following reports that youngsters were using it for sex chats.

24 TheAge.com, "Iran Shuts Conservative-Run News Site," November 2, 2004, http://www.theage.com.au/news/Breaking/Iran-shuts-conservativerun-news-site/2004/11/02/1099262820451.html Clare Doyle, "Iran Restricts Reformist Website," BBC News, January 7, 2004, http://news.bbc.co.uk/1/hi/world/middle_east/3376907.stm.

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26 "Iran Blocks Access to Google and Gmail," *The Marker*, September 18, 2007, http://it.themarker.com/tmit/article/1189.

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30 For information about blogs in Iran see: Firouz Sedarat, "Iran Internet Use at Risk from Conservatives,"*ARTicles*, June 18, 2003, http://www.16beavergroup.org/mtarchive/archives/000228.php, as well as a description by Iranian blogger Arash Sigarchi, who was even sentenced to a prison term. Arash Sigarchi, "Iran: 'We Can Write Freely in Blogs,'" in *Reporters Without Borders*, *Handbook For Bloggers And Cyber-Dissidents*, September 2005, pp. 49-51, http://www.rsf.org/IMG/pdf/Bloggers_Handbook2.pdf. For a description of the place of women in blogs in Iran, see: *BBC News*, "Web Gives a Voice to Iranian Women," June 17, 2002,.http://news.bbc.co.uk/2/hi/science/nature/2044802.stm. For a description of government activity against bloggers and people who write in them, see: Erin McLaughlin "Iran Keeps an Eye on the Bloggers," CNN.com, July 18, 2003, http://edition.cnn.com/2003/WORLD/meast/07/16/iran.blogs/index.html.

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32 Aaron Scullion, "Iranian Bloggers Rally Against Censorship," BBC News,

December 11, 2003, http://news.bbc.co.uk/1/hi/technology/3310493.stm; "Iran Steps up Net Censorship," BBC News, May 12, 2003, http://news.bbc.co.uk/1/hi/technology/3019695.stm. A report from mid-2004 determined that to date Iran had managed to block over 100,000 foreign and local sites. The first site that was blocked was Voice of America, which was considered one of the best known sites among young people, as well as a site belonging to Radio Farda that broadcasts 24 hours a day in Persian and is supported by the US administration, al-Quds Arabi, June 22, 2004.

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34 "Iran: Hundreds of Detainees at Risk of Torture and Other Ill-Treatment: List of Detainees," Amnesty International, July 13, 2009, http://www.amnesty.org/en/news-and-updates/news/list-iranian-detainees-20090713.

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