

# #iranelection: The Revolution Will Not Be Twittered

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Caught in the Net?  
Global Google-Cultures

The banner features a background of various words and symbols in white and orange, including 'Caught in the Net?', 'Global Google-Cultures', '@', and 'Google'. The text is set against a gradient of orange and yellow.

The demonstrations and protests following the disputed June 12, 2009 presidential elections in Iran, as a result of which Mahmoud Ahmadinejad was declared the winner, introduced the term ‘Twitter Revolution’ perhaps for the first time in popular culture. During the protests, media outlets like CNN and BBC frequently propagated the term<sup>1</sup> often citing sources from Twitter, partly because of restrictions placed by the Iranian government on the activities of their reporters<sup>2</sup> and partly in order to capitalise on the popularity of so-called social networks and new media technologies among their diminishing viewer base. As a result there is an impression in popular culture<sup>3</sup> that social networks are significant agents in promoting social change and democracy in Iran and in recent times in Arab countries.

This article argues to the contrary that the role of social networks like Twitter in promoting uprisings in Iran, in particular those that followed the disputed 2009 elections, was minor and certainly not deserving the attention it received. This conclusion is supported by data on internet and Twitter usage in Iran. This article will conclude by explaining why Twitter (and other social media technologies) did not have the proclaimed impact on the turn of events in Iran. For this purpose the article is divided into three parts: Part one provides a comparative overview of internet usage between Iran and Germany. Part two focuses on published data and analysis on usage of Twitter in Iran. Part three discusses the conclusion.

## 1. Internet Usage In Iran: A Comparative Overview

We begin by comparing Internet usage in Iran versus Germany because on the one hand both countries have a similarly sized population (Iran’s 72 million to Germany’s 82 million: see Table 1) and on the other hand completely different patterns of development, thus together with the data provided the reader is able to discern and judge immediately the impact of the internet in Iran today.

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<sup>1</sup> See *Hala Gorani*: CNN International I-Desk, 15.06.2009; <http://internationaldesk.blogs.cnn.com/2009/06/15/today-at-the-i-desk-the-twitter-revolution/> [23.07.2012].

<sup>2</sup> “A Twitter Timeline of the Iran Election”, in: *The Daily Beast*, 25.06.2009; <http://www.thedailybeast.com/newsweek/2009/06/25/a-twitter-timeline-of-the-iran-election.html> [23.07.2012].

<sup>3</sup> See *Donna Trussell*: Mobs and Democracy: The Facebook-Twitter-YouTube Revolution, in: *Huffpost Politics*, 01.02.2011; <http://www.politicsdaily.com/2011/02/01/mobs-and-democracy-the-facebook-twitter-youtube-revolution/> [23.07.2012].

Table 1: Iran/Germany Population Comparison

| Table 1                        | Iran                 | Germany             | Ratio (%) |
|--------------------------------|----------------------|---------------------|-----------|
| Population (2009)              | 72,903,921           | 81,879,976          | 89%       |
| Area (km <sup>2</sup> )        | 1,648,000            | 357,021             | 460%      |
| Arable Area (km <sup>2</sup> ) | (11%) 181,280        | (33%) 115,244       | 157%      |
| Physiological Density          | 402 (Tehran: 10,550) | 711 (Berlin: 3,750) | 57%       |

While Iran's land area is much larger than Germany's (roughly 4.5 times), its amount of arable land, where most of its population lives is only 1.5 times that of Germany in resulting in a physiological population density (population size/area of arable land) about 57% of that of Germany. This trend does not hold for Tehran, the capital city of Iran which is somewhat of an anomaly in the Iranian landscape in every respect: it has a physiological density about 2.8 times than that of Berlin, the capital city of Germany. Although Tehran's population is an extremely important factor in Iranian politics and culture, it is not the decisive factor in determining the fundamental course of events in the politics of the country, as the 1979 revolution and various other political developments since then have shown (e.g. Ahmadinejad's first electoral win in August 2005).

Table 2: Iran/Germany Internet Comparison

| Table 3                      | Iran       | Germany     | Ratio (%) |
|------------------------------|------------|-------------|-----------|
| Adult Literacy Rate          | 82%        | 99%         | 82%       |
| Internet Users <sup>4</sup>  | ~8,019,431 | ~64,898,069 | 12%       |
| Broadband Users <sup>5</sup> | 400,000    | 24,977,400  | 1.6%      |

<sup>4</sup> International Telecommunications Union: World Telecommunication/ICT Indicators Database, 2010; <http://www.itu.int/ITU-D/ict/statistics/material/excel/2010/InternetUsersPercentage00-10.xls> [23.07.2012].

<sup>5</sup> International Telecommunications Union: World Telecommunication/ICT Indicators Database, 2010; <http://www.itu.int/ITU-D/ict/statistics/material/excel/2010/FixedBroadbandSubscriptions00-10.xls> [23.07.2012].

As shown in Table 2, while the adult literacy rate in Iran is relatively high (82% that of Germany) only 12% of Iranians in 2009 were regular internet users versus 80% of Germans. Looking at the depth of broadband access in the respective countries, which is arguably a necessary base for social media, the disparity between the two countries is even larger: only a low 0.5% Iranians had broadband access compared with 30% of Germans. Again referring to Table 2 it can be argued that while the proportion of Facebook users in Iran relative to the broadband users (~63%) is larger than that of Germany's (~44%), the absolute numbers speak clearly: Social networking had an extremely low penetration in Iran at around the time of the elections. Even in Germany at that time social networking had a low impact.

*Table 3: Iran/Germany Economy Comparison*

| <b>Table 3</b>                  | <b>Iran</b>          | <b>Germany</b>         | <b>Ratio (%)</b> |
|---------------------------------|----------------------|------------------------|------------------|
| GDP (in million \$)             | 331,015 <sup>6</sup> | 3,330,031 <sup>7</sup> | 9.9%             |
| Exports (in million \$)         | 70,160               | 1,489,800 <sup>8</sup> | 4.7%             |
| Non-oil exports (in million \$) | 10,524               | 1,489,800              | 0.7%             |

Further evidence on the impact of the internet in Iran is provided by economic data (Table 3): Iran's GDP, roughly 9.9% of that of Germany, is a clear indication of Iran's extreme trend towards a resource based economy versus Germany's trend towards a knowledge based economy.

Furthermore, in order to understand the impact of the internet in Iran it is important to touch briefly on the issue of internet censorship. Because the issue of internet censorship in Iran is quite broad and deep, it cannot be adequately covered in the scope of this article. As not much data is available on the extent of censorship it is difficult to study the qualitative or quantitative impact it has on limiting access to the internet. It suffices to point out that without a doubt it widens the gap, in terms of

<sup>6</sup> *The World Bank*: Iran, 2009; <http://data.worldbank.org/country/iran-islamic-republic> [23.07.2012].

<sup>7</sup> *Federal Statistical Office*: Data, in: Federal Statistical Office – National Accounts, 2010; <http://www.destatis.de> [23.07.2012].

<sup>8</sup> Ibid.

internet usage in general and social networking in particular between Iran and Germany.

Interestingly enough and contrary to popular belief in the West, the Iranian government has long and before most other countries in the region understood the strategic importance of the internet for the nation and has sought actively and aggressively to expand the country's internet infrastructure to the extent that some of the statistics in this article may already be outdated. What has hampered the government's legitimate effort towards modernisation is regrettably a kind of reverse censorship by Western countries in the form of international sanctions on virtually all goods and including information technology (IT) hardware and intellectual property. Again this issue is too broad in order to be covered here. Just to give the reader a glimpse of these issues, two examples of censorship are presented: 1) censorship by the Iranian government, 2) censorship against Iran by Western governments.

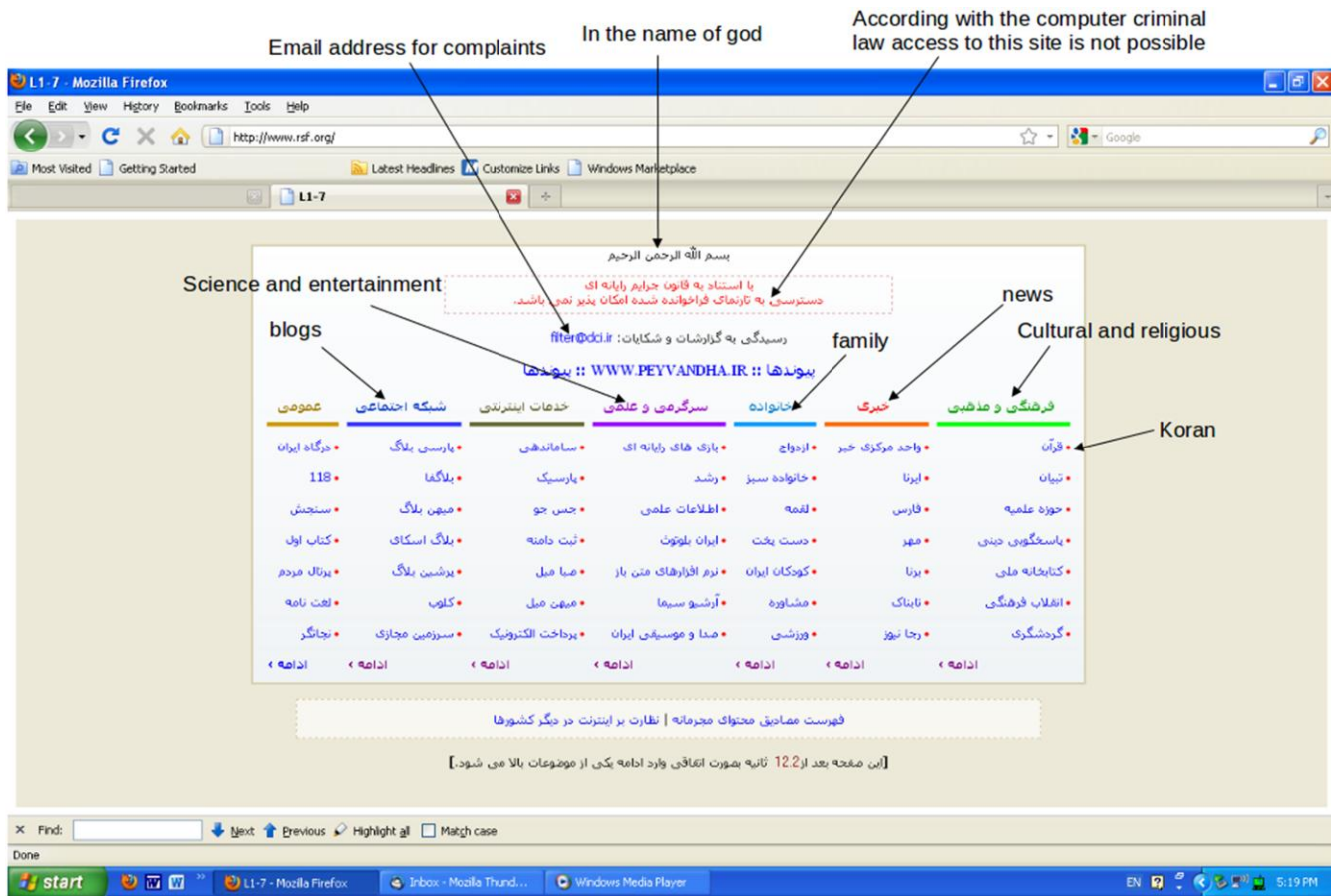


Figure 1: Internet Censorship in Iran

### 1.1. Case 1: Iranian Government Censorship

Virtually all (official and known) points of access to the Internet in Iran pass through a single large gateway and using well-known packet inspections techniques the Iranian telecom routinely filters and blocks access. In a typical scenario the user accesses a URL in the browser (see Figure 1 for an example) and if the website in question has been classified as a blocked website the user is redirected to the portal page shown in the figure. Aside from the official insignia of the page (keeping also in mind that in the Farsi language, text is written from top to bottom and right to left) the portal page displays a number of categories of links to other sites which are deemed to have more appropriate content. In the figure each column displayed refers to one such category. In this particular example the

target URL is that of the ‘Reporters without Borders’, a website which is being blocked for obvious reasons. However, sometimes websites with no seemingly political or moral (also a critical criteria on for blocking websites) relevance are also blocked. For instance the acronym ‘SAX’ stands for a particular open source software technology component that is used in Web development. The links in the result page of Google.com pertaining to this acronym were blocked in April 2009, the reason being the incidental similarity between the character strings S.A.X and S.E.X although in terms of actual content both terms refer to completely unrelated things. The range of blocked terms is quite wide (e.g. ‘Bikini Islands’ for obvious reasons) and may include quite a lot of scientific terms.

## 1.2. Case 2: Reverse Internet Censorship

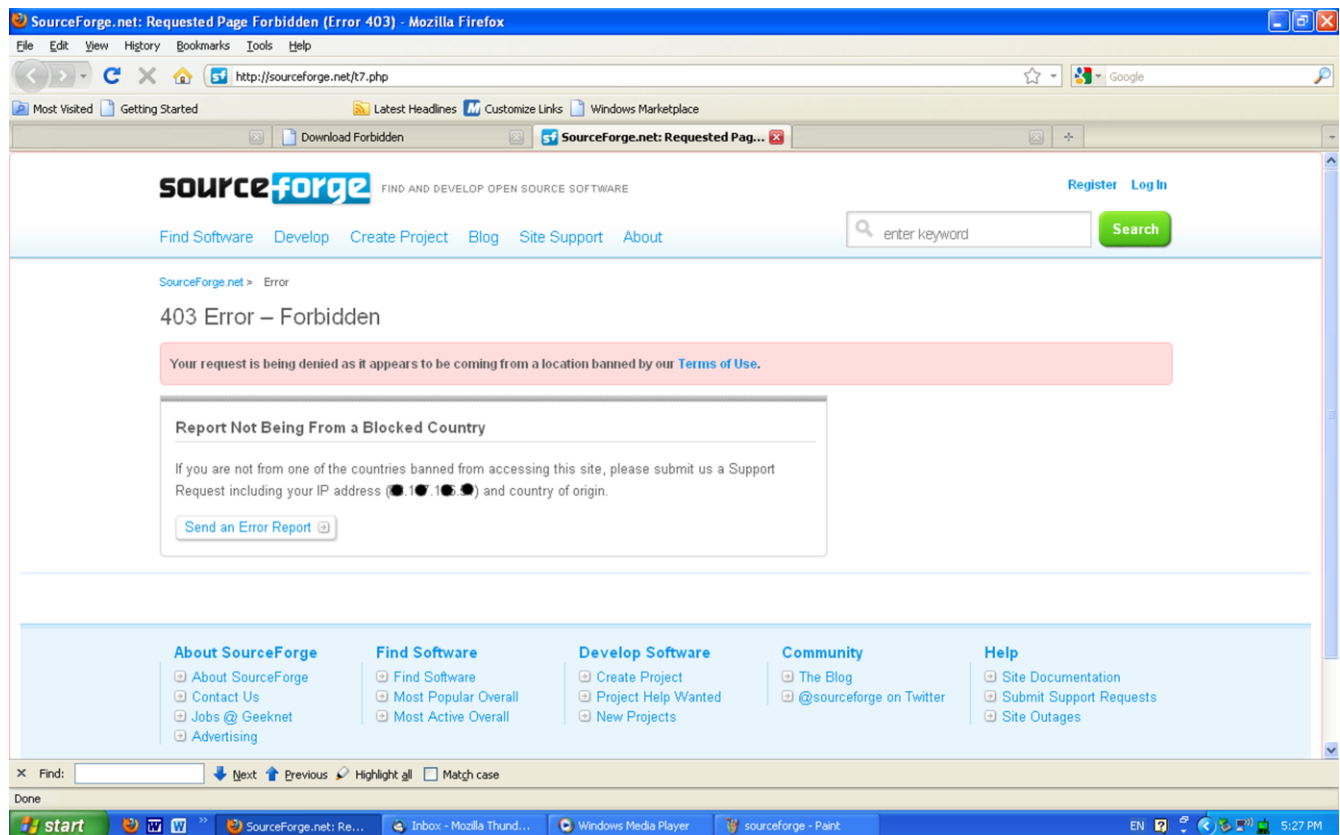


Figure 2: Internet Censorship in the West

Figure 2 displays one example of numerous types of censorship by Western countries against Iran (government and nationals alike). Anytime a user in Iran accesses the website sourceforge,<sup>9</sup> his IP address (blurred in the figure) is blocked on the receiving end. This indiscriminate blocking of one of the largest software portals in the internet is all the more perplexing since sourceforge is the preeminent portal for so-called free (as in free-dom) software, in principle guided by the idea of free distribution of intellectual property but effectively failing to follow this principle with no obvious reason whatsoever.

As a final general note with respect to the impact of the internet in Iran, a study conducted in April 2008 by the Berkman Center for Internet and Society at Harvard University<sup>10</sup> is highly noteworthy in that it debunks the view that the Iranian blogosphere reflects the views of the Iranian opposition.<sup>11</sup>

The Berkman Center study is especially valuable in that it has performed a quantitative analysis of the Iranian blogosphere using special statistical methods (see Figure 3). It drew a map showing various loci of political and non-political activity, refuting a popular misconception that the Iranian blogosphere is largely involved in anti-government activity.

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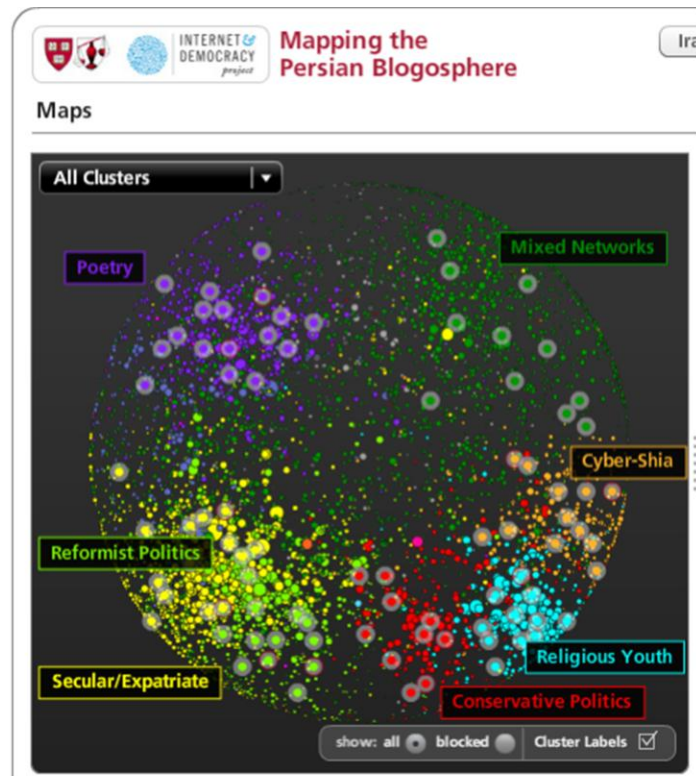
<sup>9</sup> [www.sourceforge.net](http://www.sourceforge.net).

<sup>10</sup> Kelly, John/Etling, Bruce: Mapping Iran's Online Public: Politics and Culture in the Persian Blogosphere, Berkman Center for Internet & Society At Harvard University, 05.04.2008; [http://cyber.law.harvard.edu/publications/2008/Mapping\\_Irans\\_Online\\_Public](http://cyber.law.harvard.edu/publications/2008/Mapping_Irans_Online_Public) [23.07.2012].

<sup>11</sup> The study concludes: "Until recently most Westerners assumed that the Iranian blogosphere was dominated by secular, reform-oriented bloggers opposed to the governing regime. But in fact, non-political and conservative religious bloggers also play a very active role."



John Kelly and Bruce Etling



**BERKMAN CENTER FOR INTERNET & SOCIETY**  
AT HARVARD UNIVERSITY

Figure 3: Iranian Blogosphere

## 2. The Impact of Twitter during and after the Election

First, in a well-known interview at the time when asked about the impact of the #iranelection forum on the demonstrations in Iran, Biz Stone, the co-founder of Twitter, reflected<sup>12</sup> that he did not think that Twitter had a large impact on the events immediately following the elections. It is safe to say that when such a central figure in the Twitter revolution admits this, it is of special importance to the conclusions of this essay.

<sup>12</sup> Santana, Rebecca: A Few Twitter Users Play a Big Role in Iran, in: Associated Press, 16.06.2009; [http://articles.sfgate.com/2009-06-16/news/17208672\\_1\\_twitter-microblogging-iran](http://articles.sfgate.com/2009-06-16/news/17208672_1_twitter-microblogging-iran) [23.07.2012].

| Country      | Percentage of Twitter users |
|--------------|-----------------------------|
| USA          | 62.14                       |
| UK           | 7.87                        |
| Canada       | 5.69                        |
| Australia    | 2.80                        |
| Brazil       | 2.00                        |
| Germany      | 1.51                        |
| Netherlands  | 1.28                        |
| France       | 0.90                        |
| India        | 0.87                        |
| South Africa | 0.85                        |
| Japan        | 0.71                        |
| Philippines  | 0.64                        |
| Norway       | 0.63                        |
| Spain        | 0.63                        |
| Sweden       | 0.54                        |
| New Zealand  | 0.50                        |
| China        | 0.49                        |


Source: [sysomos.com](http://sysomos.com) 

Figure 4: Twitter Usage Global<sup>13</sup>

Second, a Canadian company called Sysomos, specialising in social media monitoring, published a study in June 2009<sup>14</sup> looking at the impact of Twitter in Iran. They did a statistical analysis of Twitter users' data following the elections. In order to judge Twitter's impact at the time of the elections, it is instructive to briefly look at these numbers in a global context (Figure 4). The Sysomos research showed that by April 2009, i.e. just prior to the elections, there were roughly 11.5 million user accounts registered with Twitter in total. Roughly 80% of these users (9.2 million) were from the USA and the commonwealth countries, 5.49% was the share of the top European countries and 3.36% for the BRIC countries (Brazil,Russia,India,China) and the remaining 11.15 percent are not accounted for. Germany by that count had 173650 user accounts.

<sup>13</sup> Table taken from: Sysomos., June 2009, <http://www.sysomos.com/images/launch/sysomos-twitter-newusersbycountry.gif> [23.07.2012].

<sup>14</sup> "A Look at Twitter in Iran", in: Sysomos, 21.06.2009; <http://blog.sysomos.com/2009/06/21/a-look-at-twitter-in-iran/> [23.07.2012].

Further analysis by Sysomos showed that prior to the elections (in May 2009) there were 8654 accounts registered in Iran, i.e. where users had indicated that their place of residence is Iran. Obviously it is reasonable to think, as did the Sysomos study, that this number is genuine because these were the numbers prior to the elections. In the immediate aftermath of the election there were according to Sysomos about 19235 accounts that could be genuinely attributed to users in Iran. It is important to note that the actual number of accounts where a user had indicated his/her place of residence as Iran was actually much higher but at the time it was an open secret that many supporters of the Green movement, Iranian expatriates and sympathising non-Iranians alike, had in order to inflate the size of the support for the Green movement opened Twitter accounts indicating Iran as their place of residence. The Sysomos study was sensitive to this issue and had calibrated their results accordingly.

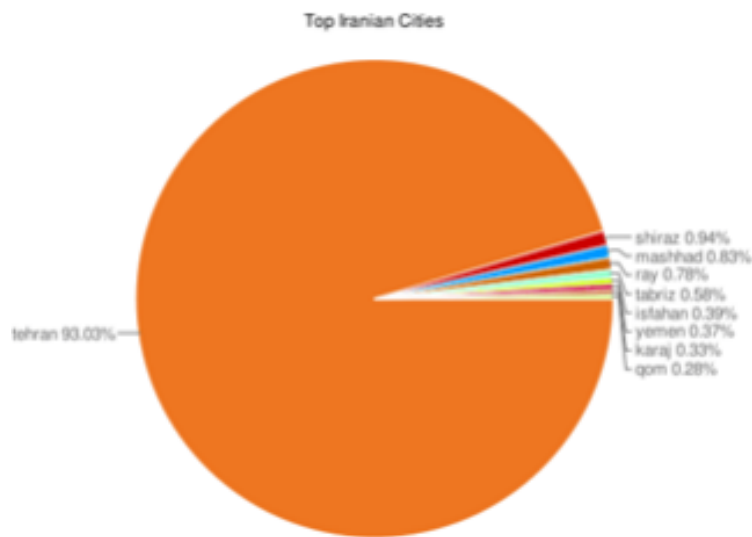


Figure 5: Twitter Usage Distribution<sup>15</sup>

The Sysomos study figures show clearly that relative to the total population of Iran and relative to the penetration of other communication technologies like mobile phones (32,292,513 million in 2009)<sup>16</sup> the impact of Twitter was minuscule. Even relative to the pre-election numbers the post-election jump in the number of Twitter users was insignificant. One could argue that those few (relatively speaking)

<sup>15</sup> Figure taken from: Sysomos, June 2009; <http://blog.sysomos.com/wp-content/uploads/2009/06/iran-chart-1.png> [23.07.2012].

<sup>16</sup> Sreberny, Annabelle/Khiabany, Gholam: Blogistan. The Internet and Politics in Iran, London 2010, p. 14.

Twitter users were hard-core activists and as such would reach out to the population far in excess of their numbers, i.e. benefited from non-linear effects of Twitter technology. One can ask, why did these activists register with Twitter on election day and not long before in preparation? If, as most analysts agree, the events unfolded spontaneously, then activists as most other demonstrators resorted to methods and tools most familiar, e.g. (as suggested by many reports) mobile phones.

Further interesting numbers (see Figure 5) are that of the 19235 accounts counted 93% are based in Iran's capital, Tehran. Hence the very little impact Twitter may have had was only in Tehran, whereas the demonstrations took place in every major city in Iran.

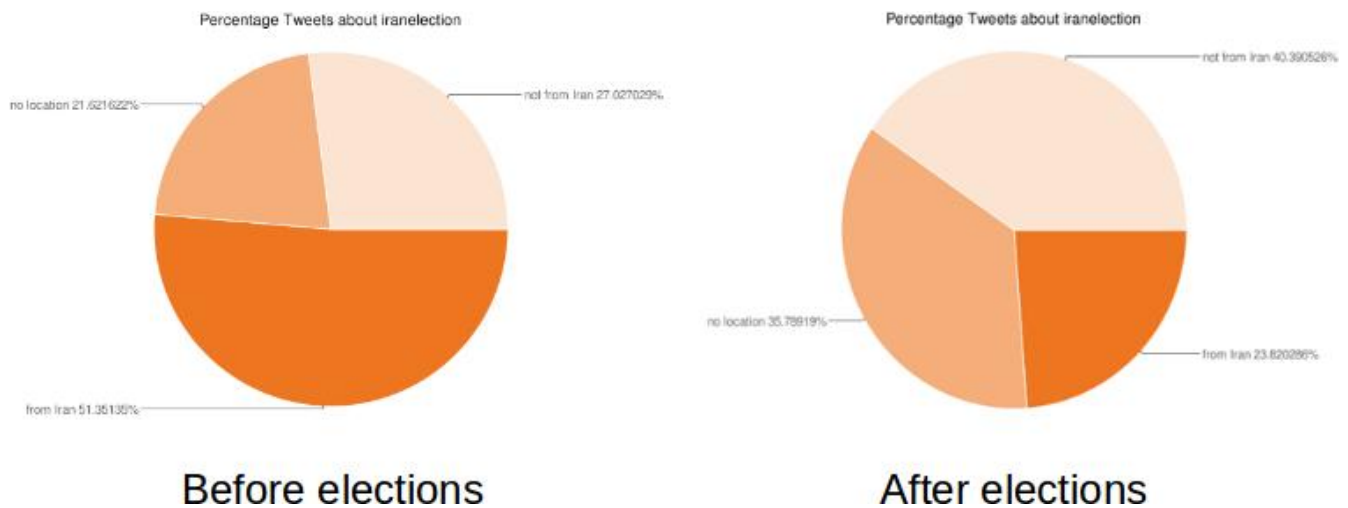


Figure 6: Twitter Usage Pattern Before And after The Election<sup>17</sup>

Also, as the study estimated (Figure 6), prior to the election around 51% of Tweets in the #iranelection forum came from Iran, whereas after the election this number was reduced to around 23%, clearly reflecting increasing participation from users outside of Iran. Surely, there was a larger Twitter impact measured abroad than inside the country.

<sup>17</sup> Figures taken from: Sysomos, June 2009; <http://blog.sysomos.com/wp-content/uploads/2009/06/picture-3-52.png>; <http://blog.sysomos.com/wp-content/uploads/2009/06/picture-2-83.png> [23.07.2012].

### 3. Why the Revolution Was not 'Twittered'

There is no reason in principle that a communication technology cannot have a significant impact on the course of a revolution. In fact, the political history of Iran itself has two such examples:

1. During the Iranian Tobacco Protest of 1891-1982<sup>18</sup> the Iranian telegraph network, which was built by Imperial Britain, was instrumental in organising the protests against the tobacco concessions that the Shah of Iran (Nasser-e-din Shah) had given to the British.
2. During the 1978-1979 Islamic Revolution, cassette tapes containing messages from Imam Khomeini,<sup>19</sup> the leader of the revolution, to his followers were distributed clandestinely over a network of mosques across the country, reaching virtually all Iranians.

However, in neither of these two cases did the technology used for organising the movement brand the movement, so for example, the 'Iranian Tobacco Protest' did not get called the 'Iranian Telegraph Protest', or the 1979 revolution was called the 'Islamic Revolution' and not the 'Sony Revolution' or 'BASF-Revolution' even though surely many of the devices used for recording and replaying the leader's message were likely built by Sony and BASF among others.

What distinguishes the 'Twitter Revolution' from the previous two examples is the hype factor ever so prevalent in the evolution of the internet. All the actors had a common interest in promoting the phrase:

- a political elite in the West hostile to the Iranian government;
- a media system that in large parts is allied with the interests of this elite;
- media outlets (like CNN and BBC) that have a diminishing viewer base and which need to pep up their presentation by embracing new media technology;
- an Iranian expatriate community largely hostile to the Iranian government and needing a platform to voice their dissent;

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<sup>18</sup> See *Nikki R. Keddie: Religion and Rebellion in Iran: The Iranian Tobacco Protest of 1891-1982*, London 1966, p. 114.

<sup>19</sup> *Wikipedia: Iran Revolution*, 31.07.2011; [http://en.wikipedia.org/wiki/Iranian\\_Revolution](http://en.wikipedia.org/wiki/Iranian_Revolution) [23.07.2012].

- lastly, Twitter itself, whose fortune is closely linked with its exposure world-wide.

So given the hype, why was Twitter's impact so low?

First of all, Twitter's impact was low, because Twitter was at the time and probably still is not a well-known social networking tool in Iran. Second, social networking (in the sense of web 2.0) itself has not made large inroads into Iranian society. Whereas in Western societies there is a significant shift to using the internet and social networking tools as a primary means of communication, interactive or otherwise, in Iran it will take more time before the internet is integrated into society at the same level it is in the West.

Furthermore, when organising social protests, trust among the actors plays a key role and social networking and other electronic communication technologies cannot be trusted in authoritarian systems. It is much more reasonable to rely on the word of mouth and face-to-face communication, which anecdotally had a much more central role during the events in Iran. The value of social networking systems is (at least nominally) their openness and centralisation, factors which can be considered a weakness when applied in opposition to state-control anywhere, precisely because these factors enable the state to easily exert their control over the network in question. In fact it is a conjecture of this article that social networking as a tool for organising protests is only then useful when the governments in question want to allow social protests, a condition unlikely to be met anywhere.

In the opinion of the author, the Twitter Revolution was much more about Twitter than revolution. However, based on the experience with other communication technologies in Iran in the past, e.g. telephone, television, cinema etc. it is safe to say that technologies like Twitter will have a strong impact in Iran, but over a long term.

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## **15th KARLSRUHE DIALOGUES**

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