



Contents

Executive Summary	3
Introduction	5
The Iranian Context	7
The digital climate in Iran	8
Iran's cyber defense	9
Digital policy under the Rouhani administration	10
Digital trends in Iran	12
Social Networking Sites (SNSs) and Messaging Apps (MAs)	13
The significance of SNSs & MAs	13
Civic activism via SNSs & MAs	14
The rise of SNSs in Iran	15
SNS popularity	16
MAs in Iran - A story of coercion and throttling	17
Providing homegrown alternatives for SNSs & MAs	19
Circumvention and Anti-Censorship Tools	21
Virtual Private Networks (VPNs)	22
Volunteer Activists Survey Report	24
Concluding Thoughts	32
Endnotes	24





Executive Summary

Iran is a country that bans major international social media sites like Twitter or Facebook yet sees its highest state officials utilize the very social media channels it banned. This contradiction is the embodiment of Iran's relationship towards social media. On one hand, conservative forces describe international social media tools as a ploy of Iran's enemies (most notable the US and Israel) to spy on Iranians. On the other hand, Iranian companies are trying to build parallel homegrown tools for the Iranian market or convincing international social media companies to relocate their servers to Iran. In doing so it is undeniable that they are validating the immense power and appeal that social media has with an increasingly tech-savvy young Iranian population.

In Iran the government blocks millions of websites that run counter to religious or political beliefs and which has been trying for years to build an Iran-only internet. It blocks approximately 50% of the world's top 500 visited websites and ranks at the very last spot in terms of internet freedom according to a worldwide study of 65 countries. Nevertheless, the reach, influence and appeal of social media in the form of social networking sites (SNSs) and

messaging applications (MAs) does not make an exception for Iran. Rather the opposite has been the case. In 2012, 29% percent used to spend at least 1 hour a day on social media whereas now that figure has now skyrocketed to 62%, of which 22% spend more than three hours a day on social media. Also posting photos at least once or twice a day has multiplied threefold, from 7% in 2012 to 25% in 2016. The fact that many Iranians have to resort to illegal circumvention tools such as VPNs to access international social media sites has done little to thwart its popularity.

The government is more than aware of these trends and seems divided in its approach to tackle the challenge. The arguably more moderate government of President Rouhani has repeatedly spoken out against the blanket blocking of sites and has advocated more subtle approaches of censorship such as filtering only undesirable content rather than entire sites. Also, Rouhani's more progressive views have made him state that it is more important to prepare Iran's youth to handle the amount of information they are increasingly bombarded with rather than shielding them from it. On the other hand, the more conservative forces in the country led by Supreme Leader Khamenei perpetuate the theory that western

social media is immoral, dangerous to the individual and the country as well as a breeding ground for widespread espionage against everyday Iranians which must either be controlled and regulated via servers in Iran or entirely blocked. Either way the political power struggle over Iran's cyberspace plays out, four trends are clearly visible. 1) there continues to be an increased usage of forbidden social media, 2) political infighting and power struggles continue to occur over internet policy, 3) arrest over alleged cyber offenses are ongoing and 4) Iran's cyber security budget has skyrocketed during the last years.

The reason why social media or cyberspace in Iran is so contested stems from the immense potential that it has for influencing socio-political realties. Information sharing is by definition at the core of social media that encourages its users to provide as much information as possible to others - whether this may be through public twitter accounts or semi-public Facebook accounts. This revelation of information has the potential to cause sudden and widespread shifts in beliefs, attitudes or behaviors as especially people in authoritarian regimes are much likelier to act and speak up if they see a substantial number of individuals in their social networks do so as well. Social media as a catalyst for civic action is therefore real and taken seriously, epically in light of its continuing success and growing popularity in the country.

Despite the rapidly growing user base for SNSs and MAs however, this report found one striking difference which stands out between everyday users and people who use social media for civil activism related work. For average everyday users it is evident that they are far more concerned about internet access than civil activists who place online security above everything else and it is for this very reason that we must differentiate between these two as this knowledge impacts our analysis of how and why social media is being utilized. The fact that a resounding 98% of civil activists surveyed by VA use Telegram as their first choice MA proves this

Social media and cyberspace in Iran is highly contested because of its immense potential in influencing socio-political realities.

point. But this report also discovered that security is not the only decisive factor in determining a suitable MA for civil activists. Also technical reliability and popularity with friends rank 2nd and 3rd amongst reasons why Telegram, Email and SMS are considered the most popular MAs for civil activists. With regard to social networking sites, credibility, a source for unbiased or open information and wide usage amongst friend networks are the top three reasons as to why civil activists prefer to use platforms such as Facebook, Twitter and Instagram. Nevertheless, this report has also found that SNSs and MAs undoubtedly play a crucial role for civil activists as 71% admit to using SNSs for gaining access to uncensored news and information and 59% primarily use it for publishing and distributing news or information. The more notable trend however, confirmed with this report's research is that only 12% of respondents stated that access to internet is "easy" for them with 47% experiencing some problems and 41% stating that access to the internet is very difficult for them.

Introduction

The research for this report was carried out by Volunteer Activists Institute (VA), a non-profit, non-governmental, non-political and independent institute, whose primary aim is capacity building among activists and civil society organizations; facilitation of information exchange among civil society activists, and advocacy and expansion of democracy, human rights and peace building within Iranian society.

This report has been conducted as part of VA's organizational mission and its findings identify the tremendous proliferation and influence of social media in Iran and thus provide valuable insights towards designing and compiling capacity building projects. In this capacity, Volunteer Activists Institute aspires to assist activists and CSOs in Iran, by implementing plans for efficient capacity building measures, so that beneficiaries can better respond to the needs of their stakeholders, and thereby contribute to the development and democratization of the Iranian society.

In this light, this report seeks to explore the situation of virtual association and social networking in Iran. To achieve this, the report will first examine Iran's digital climate, its cyber defense policies and political infighting over Iran's cyberspace before concluding with a number of digital trends that can be observed. The second part of the report will focus on social networking sites (SNSs) and messaging applications (MAs) first, by providing an assessment of the potential influence that SNSs and MAs have in today's socio-political environment with regard to civil activism and secondly, by discovering how Iranians use SNSs and MAs and in which ways the government attempts to control their usage. Lastly, it is analyzed how and why Iranian's utilize digital

circumvention tools.

The report used quantitative as well as qualitative research methods that focus on exploring the current social media environment in Iran whilst providing an adequate background to the general digital situation within the country. Firstly, secondary research via available literature and data points was utilized. Additionally a survey with 200 Iranian civil activists was conducted to discover how and why Iranian civil activists use social media and messaging tools. This first hand research was carried out between October 2015 and January 2016 through a serious of interviews via a variety of online tools (Skype, Facebook, Telegram). The 200 participants, who were all living in Iran were asked a number of "yes/no" questions and their answers served as the basis for the analysis of this report.

Volunteer Activists on the Web

www.volunteeractivists.nl







The Iranian Context

Social networking sites (SNSs) and messaging applications (MAs) in Iran aptly reflect the country's ambivalent stance towards internet freedom.



Even though sites like Facebook and Twitter officially remain blocked, some government officials actively use Facebook and Twitter in their official capacities despite the fact that these sites are only available when using illegal circumvention tools such as Virtual Private Networks (VPNs). Foreign Minister Mohammad Javad Zarif, for instance. leads the way on social media. His Facebook as well as Twitter account has a "Verified"[1] blue tick status and his sporadically updated Facebook page is counting over 930.000 fans. In fact, Hooman Majd, an Iranian-American journalist and author of several books on modern Iran, explains that "any sophisticated politician -- and Zarif is certainly sophisticated -- understands that social media plays a big part in establishing a narrative,"[2] noting that the minister uses Facebook in Farsi to message Iranians and Twitter in English to match diplomatic counterparts such as US Secretary of State John Kerry. But also cabinet ministers of President

Rouhani and officials from the office of the Supreme Leader Ayatollah Ali Khamenei have opened up social media accounts and tweet. President Rouhani as well as Supreme Leader Khamenei have in fact two Twitter accounts - English and Farsi, as well as English and French respectively. It is also interesting to note that Zarif and Khamenei opened their Twitter accounts already in 2009 while Rouhani opened it in 2012 shortly before becoming President in 2013. Hooman Majd consequently and befittingly describes this paradox by stating that the contradictions of censorship policies in Iran no longer raise any eyebrows, except those belonging to foreigners.

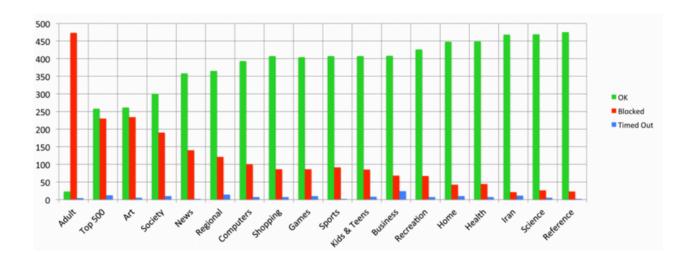
Despite the inherent contradictions, it is evident that even high-ranking Iranian officials refuse to ignore the power of social media and the benefits they hope to harness from it. They are acutely aware that Iran's predominantly young population is increasingly becoming more tech-savvy and spending growing amounts of time online and engaged with social media. Similar to any other politician, also Iranian officials rely to varying degrees on popular support and seek it out where it can be found. This symbolizes the true power of social media – namely that even in a country

where international social media is banned and only accessible via illegal circumvention tools, state officials are using it in order not to miss out on the possibility to not only create a narrative for themselves but also to avoid coming across as digitally left-behind and out-of-touch in the eyes of a young Iranian audience.

The Digital Climate in Iran

To understand these contradictions better it is best to analyze the context first. In about 2005, during former President Ahmadinejad's first term in office, internet filtering and censorship started to become a common practice in Iran. Content filtering, IP blocking, DDoS attacks, as well as bandwidth throttling have since then been used by state controlled bodies such as FATA, Iran's cyber police, to control cyberspace by preventing dissemination of - and access to - information that deviates from regime-approved content. This practice has severely intensified since the disputed presidential elections in 2009 during which mass protests and rallies occurred, mainly organized virtually via SNSs and MAs, and which presented the regime with a severe crisis. In an attempt to prevent a repeating scenario, the Iranian regime has most notably not only blocked YouTube, Facebook and Twitter but also approximately 50% of the world's top 500 visited websites[3] (graph below)[4].

Additional to banning particular sites, Iran's network also filters traffic based on content as one research experiment revealed. In a test, researchers created a file called sex.htm and hosted it outside the United States. When trying to access to this page was from inside Iran, the site was found to be blocked[5]. Moreover, especially during and prior to Iranian election times, it is common practice for Iran's authorities to step up their internet filtering practices. This was made evident for example in the weeks before the June 2013 elections, where the internet was not only slowed down but also configured to discourage the usage of particular encryption protocols - such as the encrypted SSH protocol which can be used to 'tunnel' other types of traffic. Standard traffic was allowed through at mostly normal speeds but traffic using the SSH protocol was limited to less than 20% of the normal bandwidth capacity. Additionally, any traffic the



Iranian firewall did not recognize was reduced even more severely and was eventually stopped completely after about 60 seconds. Nevertheless, it remains also true that even unthrottled internet access is unacceptably slow in Iran, as the government generally limits internet speeds[6].

Researchers found that a "large amount of Iran's traffic passes through a centralized facility," where censorship filters are applied. Perhaps to avoid

overwhelming this facility, or perhaps to limit access to high-bandwidth (and potentially subversive) video content, the government has throttled internet speeds nationwide for everyday users. The pervasive censorship in Iran has led many Iranians to take countermeasures. Anti-censorship technologies such as Tor, FreeGate, Your Freedom, and Ultrasurf have been widely used inside Iran.[7]

Iran's Cyber Defense

The legal framework for the government's censorship actions is ambiguous at best. The 2000 Press Law, for instance, prohibits the publication of thoughts, ideas or opinions that are misaligned with Islamic principles or are harmful to public rights[8]. The 2009 Computer Crime Law, which makes service providers, such as web or blog hosting platforms legally responsible for any content posted on their sites[9] and requires all Iranian internet service providers to record all the data exchanged by their users for a period of six months, also forbids the publishing of materials deemed to damage "public morality and chastity" or to be a "dissemination of lies" [10]. Punishments for breaking these vaguely worded legislations range from small fines and prison sentences to draconian fines, lengthy prison sentences and even the death penalty. This gives authorities a wide spectrum of legal interpretation as well as an ample amount of flexibility when it comes to sentencing.

It can be argued that cyberspace has always posed one of the hardest challenges to the control of the Islamic Republic over its population. This is why Iran has in recent years invested over \$1 billion in digital surveillance technology as well as defensive and offensive cyber personnel[11]. The Revolutionary Guards' Cyber Defense Command (RCDC) and FATA have used these resources to increasingly control, monitor and if necessary shut down the online activities of those suspected to be regime-critical — a loose description at best. They've struggled to assert their relevance and operate

effectively, prosecuting cyber crimes domestically at the same time as engaging in cyber warfare abroad. Ongoing arrests of online activists are nowadays increasingly accompanied by televised confessions and official statements by authorities which, for example, state: 'you should know from the cases the Iranian Cyber Police has pursued and concluded that personal messages on Viber, WhatsApp, etc. can be controlled by the Cyber Police' (September 2014), 'people should know we can read their messages' (September 2014), 'those who think this space is safe for them must cease their activities' (February 2015), and 'we will definitely identify these people and deal with them' (May 2014).[12] Statements such as these serve but one purpose; to instill a culture of fear and diminish any hope of online privacy. Even if in most cases these statements are gross exaggerations of the regimes capabilities, the intended result is achieved - namely self-censorship due to fear at the cost of the right of freedom of expression. In other words, authorities actively try to intimidate Iranians through threats and fear of prosecution to an extent that they hope that everyday users self-censor themselves by refraining from using banned software or accessing blocked sites. In addition, the Tehran Police Commander Hossein Sajedinia made a statement on September 6, 2015, that over the last five months, Iran's Fata Cyber police had closed 272 Internet cafes and issued warnings to another 847.[13] A clear signal that Iran's authorities are trying hard to win control over the Iranian digital space.

Digital policy under the Rouhani administration

Today, Iranian cyberspace has probably become one of the biggest topics of contention between Rouhani and the powerful institutions that hold stake in the situation and which are outside of the Rouhani administration's control. After the 2013 election, which resulted in a win for Iran's current President Hassan Rouhani, hope for reduced restrictions on internet freedom have been raised as he and his government are widely viewed as a moderate administration. Since Rouhani has taken office he has hinted, at several occasions that he intends to lift some of the internet restrictions that criminalize many of the estimated 30 million Iranians who regularly go online[14] (Iran's internet penetration is estimated between 32% and 50%)[15]. For example, shortly after winning the 2013 election, Rouhani, said:

"Filtering has not even stopped people from accessing unethical websites. Widespread online filtering will only increase distrust between people and the state".[16]

"Moreover, during his campaign Rouhani has repeatedly noted:

"We are living in a world in which limiting information is impossible. Youth are faced with bombardment of information and we must prepare to handle it." [17]

The fact that after more than 2 years in office, Mr. Rouhani and his government have not yet managed to bring about any major relief for internet freedom in Iran, should not necessarily diminish hopes. It should rather be viewed as a symptom of the complexities of Iran's political system of interwoven institutions and as a consequence of an ongoing internal power struggle between moderate political forces and hardline conservative forces. Supreme Leader Khamenei, for example, issued a decree in March 2012 to establish the Supreme Council on Cyberspace (SCC) - a centralized institution for policy making and regulation of Iran's virtual space. This decree effectively removed the authority over this space from the executive, legislative and judiciary branches of government and brought it

under direct control of the Supreme Leader himself who appoints the council's members. While the SCC remains chaired by the President, this move was motivated by both political as well as economic reasons.

Nevertheless, President Rouhani has taken a stance in favor of his internet reform agenda and has in May 2014, in an unprecedented step, vetoed the proposed ban of WhatsApp and Instagram by the Committee Charged with Determining Offensive Content (CCDOC) which is under the control of the SCC. Rouhani's Telecommunication Minister Mahmoud Vaezi was quoted as saying "Until the time that we have a replacement for these sites, the government opposes filtering them" [18]. In other words, Rouhani rejects the conservative stance to internet filtering, which calls for the full and complete blocking of all sites with 'objectionable content'. Instead, Rouhani's administration advocates for a more selective way of using 'smart filtering' with which only the objectionable content and not the entire site would be blocked. This would fulfill the purpose of removing questionable content whist allowing the site to operate as usual. In October of 2014, Iran applied smart filtering by blocking the famous Instagram page 'Rich Kids of Tehran'. The block did not come as a surprise. But it was much more than routine because it showed that Iran was capable of and willing to use smart filtering as a censorship technique. Even though Rouhani's stance on the matter presents technical challenges regarding its implementation across the web, it is nevertheless obvious that his position is by far more flexible than that of the conservative establishment. In the case of the blocking of Instagram pages however, it quickly became clear that Iran's ability to block only certain Instagram profiles, rather than having to block the entire social network, was mostly aided by Instagram's lack of HTTPS encryption at the time[19].

Hardliners under the leadership of the Supreme Leader Khamenei, however, are far from conceding. The opposite is probably more accurate as the

Volunteer Activists

political struggle over control of Iran's cyberspace is fought on several fronts. One of these fronts is access to high speed internet. For many years, Iranian authorities have systematically decreased internet bandwidths and thus severely limited its usefulness, particularly for mobile apps. Rouhani's decision to approve the granting of licenses for 3G and 4G networks in April 2014 (passed by government in September 2014)[20] was therefore seen as a major win for mobile Internet access in Iran. However, the Islamic Republic of Iran Broadcasting (IRIB) state agency, whose director is appointed by Khamenei and reports directly to him, has refused to grant the frequency necessary for nationwide access to 3G and 4G services, limiting their coverage and clearly demonstrating the ongoing power struggle. More recently, on September 5th, 2015, Khamenei took another shot at gaining control over Iran's cyberspace and while announcing the reappointment of the SCC members for a new four-year terms he also declared the

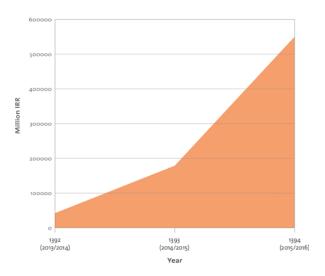
"dissolution of all Supreme Councils [state organizations] approved in the past, which are parallel to this Council [SCC], in order to strengthen its extra-branch and central position, and to transfer those other Councils' responsibilities to the Supreme Cyberspace Council". [21]

In other words, Khamenei has demanded that any other organization involved in Internet policy is to be dissolved and all Internet decision-making power concentrated in the Supreme Council - effectively sidelining Rouhani's government and especially the Ministry of Information and Communication which has played a crucial role in advancing internet access in Iran. Khamenei said the re-vamped council should "purify the cyberspace", "effectively confront the influence and encroachment of foreigners" and that the council "must be above government branches". [22] Since there are about a dozen institutions involved in controlling the virtual space it seems implausible that they will be all dissolved. Rather, it is more likely these institutions will be dominated by the SCC. However, only a day after the Khamenei statement was made, Mahmoud Vaezi announced that he would dissolve the Supreme Council of

Information Technology[23]. It remains yet to be seen if and how Rouhani will respond to this political outmanoeuvring.

Nevertheless, one potentially worrying note needs to be made with regard to Rouhani's administration which continues to see Iran's cyber security spending soar. In just three years, cyber security spending has increased from 42,073 million IRR (3.4 million USD) in 2013/2014 to 550.000 million IRR (19.8 million USD) in 2015/2016 - an increase of over 1200% (see below graph) when accounting for currency fluctuation.[24] This may be particularly due to the incidences of alleged NSA-sponsored Stuxnet[25] and Flame[26] spying scandals, which exposed and exploited significant vulnerabilities in the Iranian cyber defense infrastructure. But with the increasing budget comes also the fear of improved cyber surveillance and content filtering capabilities which Iran has traditionally never been shy to deploy against its citizens.

Cyber Security Budget



In summary, it can be stated that while the Internet has not broken free under Rouhani, four trends can be observed in Iran's digital space:

Increased usage of forbidden social media

The use of social media by the Iranian government is welcomed by many as a bridge between Iranian authorities and citizens. This advantage is well understood by many government officials who use social media websites despite the fact that they can only be accessed through circumvention tools which are illegal in Iran. The same is true for Iran's internet population which is becoming increasingly adept at circumventing blocked websites in order to access forbidden social media sites such as Facebook or Twitter.

Political infighting and power struggles continue to occur over internet policy

Rouhani and his administration have repeatedly expressed concern over Iran's conservative internet policies and criticised filtering on more than one occasion. Other than Rouhani's veto against the proposed ban of WhatsApp and Instagram by the CCDOC, his agenda for a more moderate approach to governing Iran's cyberspace is mostly limited to words which are regularly followed by counter pressures by the conservative press or by conservative decisions that are made by government bodies outside of Rouhani's sphere of influence.

Arrest over alleged cyber offenses are ongoing

While the political infighting and power struggles over Iran's cyberspace administration continue in what could be described as a "good cop, bad cop routine", arrests of alleged cyber offenses continue unimpeded. As such it is fair to conclude that despite Rouhani's push for a more moderate approach to Iran's internet policy, the probability that "netizens" will go to jail for cyber offenses today is no different than it was before Rouhani's administration.

Cybersecurity budget has increased

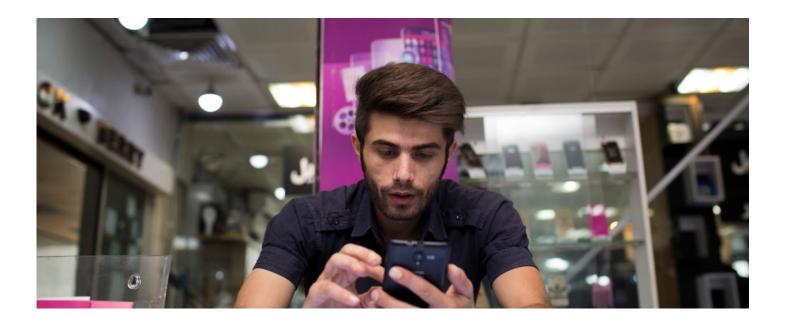
In just three year Iran's ICT budget has increased by 1200% which isn't necessarily a bad thing per se and also partly due to currency fluctuation but it does raise the concern that also the regime's ICT capabilities for surveillance and content filtering have improved given the increased funding priorities.

1

3

4

Social Networking Sites (SNSs) & Messaging Apps (MAs)



The significance of SNSs & MAs

So why are Iranian authorities so keen on limiting internet freedom and eroding the digital freedom of expression of their citizens? The answer actually is quite simple. Control over information - especially around election times - because Iran's conservative forces naturally attempt to maintain as much political control within Iran's theocratic political framework as possible by impeding the equally existing democratic forces within the country through denying them the opportunities to gain more popular support. This can be achieved by controlling the flow of and access to information. Reporters Without Borders sum up the situation this way:

"While most Iranians get their news from television, the Internet plays a key role in circulating news and information thanks to dissidents and independent news providers. [...] The authorities often accuse social networks of being tools in the pay of Western powers that are plotting against the government. [...] The Iranian Internet is not more politicized than in other countries, but it is definitely more closely watched.[27]

In other words, social media and the digital revolution have and continue to pose a threat to conservatives as they are difficult, if not impossible, to control and proliferate democratic values such as free speech and the freedom of opinion. For example, if information would not be filtered, then the one-sided conservative propaganda becomes less effective. Also fear might be eroded by cases of other citizens voicing discontent, shared through SNSs or MAs, which could in turn empower others to do the same. News received and shared about injustices committed by the conservative regime (arrests, raids, confiscations, etc.) could be amplified

resulting in increased anger or irritation towards the conservative authorities. It is therefore apparent as to why social media tools and apps - which are not

directly controlled by Iranian authorities - are seen as more than an annoyance but rather as a real and growing threat for the conservative political elite.

Civic activism via SNSs & MAs

Social media creates what Alex Lambert calls "dialogical spaces" where social action is generated by creating new ties and offering a space for engagement in civic action at both the local and transnational level.[28] Information sharing is by definition at the core of social media that encourages its users to provide as much information as possible to others – whether this may be through public twitter accounts or semi-public Facebook accounts. This revelation of information has the potential to cause sudden and widespread shifts in beliefs, attitudes or behaviors as especially people in authoritarian regimes are much likelier to act and speak up if they see a substantial number of individuals in their social networks do so as well.[29]

As such, the assessment that social media can be powerful tool which can influence political and social realities is well-founded and has been highlighted in multiple studies. After the Arab Spring and the uprisings that have led to significant political changes in Egypt, Tunisia, and Iran, increasing number of studies have argued that information technologies have the potential to strengthen social movements and ultimately transform society[30] . It is also reported that academic research has consistently proven that people who consume more news media (e.g. including through social media channels) have a greater probability of being civically and politically engaged across a variety of measures[31]. Moreover, a 2012 study, called 'A 61-Million-Person Experiment in Social Influence and Political Mobilization', revealed that voting behaviour can be significantly influenced by messages on Facebook.[32] To this extent, researchers from the University of California, San Diego, and Facebook conducted experiments which provided data that suggests that voter turnout

increases when Facebook users are confronted with newsfeed activities which encourages them to vote. When close friends would be associated with voting encouragements, voter mobilization was even four times stronger than when voting encouragements were simply generic and not related to online or offline friends. In other words, the research concluded that online political mobilization works and that "social mobilization in online networks is significantly more effective than informational mobilization alone. Showing familiar faces to users can dramatically improve the effectiveness of a mobilization message" [33].

Another study by the Pew Research Center revealed that SNSs have started to break down traditional barriers of political or social activism which resulted in a much wider variety of people (in terms of class, background and education) to learn about or become involved with or even taken action around political and social issues.[34] One example of such a social issue which galvanised popular support and even resulted in political action is the 2014 incident where Boko Haram terrorists kidnapped more than 300 girls (out of which only 50 managed to escape). The news and resulting campaigns, largely funneled through SNSs (#BringBackOurGirls), went viral within a week and generated celebrity support from people such as Malala Yousafzai and Michelle Obama. This ultimately lobbied governments to take action and thus prompted several heads of state to offer help to Nigeria to find and bring back the girls. Another example which utilized SNSs effectively to raise awareness and indirectly boost fundraising efforts was the well-documented ALS #IceBucketChallenge which featured videos of people, including a number of global celebrities, tipping buckets of ice water

over themselves before nominating three other people to do the same. The web-friendly nature of the campaign dominated online as well as offline media and, irregardless of some criticism, helped raise an estimated 220 million USD for ALS.

To further elucidate the power of civil digital activists, a research project conducted by the University of New South Wales, Australia as well as the Centre for Management and Organisation Studies (University of Technology, Sydney) analysed data of online activism between 2009-2013 and came to the conclusion that online activism has helped indeed to organize collective actions and amplify the conditions for revolutionary movements to form[35]. Whereas initially, activists may have used information technologies to promote a movement's main ideas and gain global support, more recently, a single tool or application, such as Twitter for instance, has been the technological basis for certain social and political movements. However, nowadays there seems to be a trend

towards a more integrated use of social media tools and applications, generating what could be called cyberactivism 2.0[36]. It can therefore be argued that SNSs and MAs, as tools of cyber activism, can act as a powerful catalysts for non-violent digital civil activism which enjoys its biggest success when it is utilized as an online method to generate offline action.

In most democratic societies SNSs and MAs are therefore welcomed as free and popular communication as well as information channels. But in less-free societies, such as Iran, it is feared that unchecked and unregulated SNSs and MAs may galvanise people around social or political issues that stand in opposition to official ideas or beliefs. It is precisely this fear of loss of control over information what has Iranian officials argue that only those social networks that agree to locate their servers inside Iran will be allowed to operate. However, to the best of our knowledge no global company has admitted to agreeing to this proposal so far.[37]

The rise of SNSs in Iran

Although Facebook, Iran's most used SNS, has not suffered a major loss in popularity despite being blocked in Iran since 2009, it has recently passed the torch of the number one SNS to Instagram. Although reliable statistics on Iranian Facebook users or other SNSs are hard to come by and are generally not officially available, sample data from surveys can be used as a basis for a better understanding of Iranian SNS consumption. According to a recent survey in January 2016 which sampled 886 respondents, Facebook has dropped from 58% in 2012 to 35% in 2016. The new SNS winner is called Instagram, which according to the survey, has 51% of Iranian internet users use its platform.[38] This finding was confirmed by this report's own survey conducted with 200 digital civil activists in Iran (chart below).

Rank of SNS <u>importance</u> with relation to respondent's digital activities

	1st	2nd	3rd
Instagram	71%	25%	4%
Facebook	19%	68%	13%
Twitter	5%	2%	60%

Moreover, to better demonstrate the incredible rise of SNS importance in Iran, one must look towards the daily social media consumption rates. TechCrunch's survey reports huge increases of time per day spent on social media from 2012 to 2016.

29% percent used to spend at least 1 hour a day idling away through myriad postings. That figure has now skyrocketed to 62%, of which 22% spend more than three hours a day on social media. Posting photos at least once or twice a day has multiplied threefold, from 7% to 25%.[39]

Once again our own VA survey reports a similar finding with 54% of people spending from 5 to 20+

hours per week on Instagram and 53% on Facebook (chart below).

But irregardless of the exact breakdown of SNS users and government attempts to block or otherwise impede access, the trend which has seen Iranian users enthusiastically embrace SNSs since the early 2000s remains unchanged and has now conquered the mobile realm as well. "Iranians are using their mobile device daily for instant chat (60 percent), downloading apps (60%), reading the news (60%), watching video clips (59%), playing games (54%) and streaming music (45%)." [40]

Rank of SNS
usage with
relation to
respondent's
digital activities

	0 hours	1-5 hours	5-10 hours	10-20 hours	more than 20 hours
Facebook	12%	35%	23%	20%	10%
Instagram	6%	40%	31%	10%	13%
Twitter	60%	33%	1%	6%	0%
LinkedIn	62%	28%	10%	0%	0%

SNS popularity

A wide variety of Iranian users, composed of a majority of young cyber-savvy youths, civil activists as well as Iran's political and religious elites, rely on SNSs for a broad spectrum of activities from socialization, receiving or sharing news or running digital civic campaigns to making political and religious statements and generally trying to show proximity and engagement with Iranian voters. The fact that on a policy level conflicting perspectives regarding the state's position on social media exist, highlighted also by an uptake of actively maintained Facebook and Twitter accounts by high-profile officials, shows the inherent contradictions and paradoxes of Iran's stance on social media and has done little to reduce SNS popularity inside the country. In fact, the opposite is probably

more accurate as SNS use by state officials has confirmed social media users and the inability to ban/block SNSs entirely, has strengthened their belief that SNSs enable them to practice their right to freedom of information as well as their freedom of expression, which the government seems unable or hesitant to completely take away. As such, the reconfiguration of communication and information flows, since the outset of social media, demonstrates, more than anything else, the complexity and dynamics of online communication policies and culture in Iran[41].

It should however be noted that even though SNSs are excellent tools for civic and political

Volunteer Activists

activism in Iran, it also remains true that every day Iranian netizens use Facebook, for instance, primarily as a vehicle for socialization since only 5% of respondents to a Facebook study reported using Facebook for social and political activism[42]. This is reinforced by studies that found that that Iranians use Facebook as a virtual space to socialize, especially with the opposite sex[43]. However respondents have also cited accessing news and information, which is otherwise unavailable through official channels, as one of their main reasons for using Facebook[44]. Notably, however respondents have expressed the least interest in sharing or following religious content.

In the above cited Facebook study it was also found that "respondents more often follow rather than share content, particularly politically-related materials, which may demonstrate the perceived security risks associated with using Facebook". To this extent, many respondents have major concerns about security and privacy within Facebook and do not seem to be very trusting of other SNSs. The survey report states:

A majority of survey participants report that they believe that using Facebook could pose risks to their security, and to their job prospects and reputation. Nevertheless, despite security concerns and obstacles accessing Facebook (e.g. filtering and slow internet connections), results reveal that respondents spend a considerable amount of time on Facebook on a daily and weekly basis.[45]

In summary it should be noted that SNSs enjoy a huge popularity in Iran and are used for engaging in everything from entertainment, receiving and sharing news, up to civic activism. In particular, for the Iranian case, where a substantial number of ethnic Iranians live abroad, social media has become tool for uniting diaspora with local activists and has also given people from marginalized communities the ability to comment on public affairs and to form groups and networks. Most importantly, SNSs fundamentally contribute to the dynamic process that social media is and advance the collective intelligence which is derived from a flexible and fluid audience that acts as a content creator as well as content consumer. [46]

MAs in Iran - A story of coercion and throttling

In the eyes of Iran's conservative establishment, messaging apps (MAs), such as Viber, WhatsApp or Telegram are therefore seen as an obstacle on the road to controlling Iran's cyberspace and efforts have been undertaken to minimize the utility of these apps. The general pattern of behaviour seems to have authorities first contact international app providers asking them to "collaborate" with Iranian authorities. If app providers fail to comply, which is normally the case, then app bandwidth tends to be severely throttled making the apps more difficult or impossible to use. This was witness by Viber, for example, which had about 10 million Iranian users in early 2015 - over 12% of the entire population. According to the web analytics service Alexa, Iran had the highest percentage of visitors to Viber.com, with Iranians constituting over 17% of the service's

users[47]. Surprisingly, the app was originally developed by an Israeli - which didn't seem to bother Iranian users - and then sold to a Japanese company. But after Iran's telecom providers heavily reduced Viber's bandwidth, it made voice calls extremely problematic. Naturally this, as well as rumors that Viber was planning to collaborate with the Iranian government, has resulted in a sharp decline of Iranian Viber users in mid-2015 (from 17% to well under 3.5% of Viber's user base[48]).

"This is one of the things that the Iranian government has a history of doing which is not necessarily completely blocking access to, but making a service unusable," ... So it's a more subtle way of getting what you want, which is to coerce people into other services or disrupt access. ... So the intent is a more

opaque form of censorship: just make it so unusable that no one wants to use it" [49] ...

Previous Viber user now seem to have migrated to Telegram - an app which promises users total anonymity and encrypted messages that can even self-destruct on demand. However, due to its rising success, Telegram has now been targeted by authorities. As reported by Nariman Gharib, a London-based Internet researcher, some tools and features had become inactive for Iranian users, apparently in connection with demands by Iranian authorities. Gharib said most of the blocked features appeared to deal with the ability to share pornographic content but this development lead to concerns that further restrictions could follow[50]. In fact on September 2nd, 2015, Hossein Ramezani, Iran's deputy cyber police chief for international affairs made a statement that Tehran has asked Yahoo, Google, and the messaging app Telegram to "work with us in the prevention of criminal acts" [51] . Iranian authorities had also previously stated that internet giants are welcome to offer their services in Iran as long as they respected Iran's "cultural rules and policies," and they have repeated yet again that the Islamic Republic did not "tolerate" social-networking sites that allow the sharing of "immoral content" [52] . This has led to concerns of Telegram users that Pavel Durov, Russian entrepreneur and founder of Telegram as well as Vkontakte - Russia's most popular social-networking site, may have caved to the demands made by Tehran in order to avoid Telegram suffering the same fate as Viber in Iran. But Durov

Source: https://twitter.com/durov/with_replies

on September 5th 2015 publically responded on Twitter in response to a question - from the French media watchdog Reporters Without Borders - about whether Telegram has reached an agreement with Tehran and whether there are plans for moving some of Telegram's servers to Iran. Durov unequivocally stated that Telegram has not entered any agreements with any government on this planet and has no plans to do so[53].

Additionally Durov put the pressure on Tehran by publicly tweeting on October 20th 2015 that Iranian authorities temporarily blocked the app in Iran after Telegram refused their demands to help them "spy on their citizens". Durov wrote that Iran's Ministry of Information and Communications Technology demanded that Telegram should provide the ministry "with spying and censorship tools" and then added "we ignored the demand, they blocked us".



Source: https://twitter.com/durov/with_replies

Additionally, Durov confirmed on October 20th 2015 that after news of the blockage was publicized, "Telegram traffic is no longer limited in Iran after a week's interference and...2 hours full blocking" which probably was meant to intimidate Durov as to what would happen if Telegram would not comply with Tehran's request. Durov then further elaborated by saying that pornographic content on Telegram is not the issue for Iran's authorities, "they want to read and censor private messages" but Telegram will not help them with this. [54]

Volunteer Activists



Source: https://twitter.com/durov/with_replies

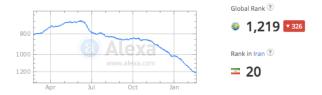
It is not surprising to anyone that Iranian authorities have tried to pressure Telegram into helping them

to spy on their citizens. Given the regime's track record, it was to be expected. One Persian-speaking Twitter user commented with a smiley emoticon and asked if anyone had any recommendations for an alternative to Telegram which aptly summarises the cat-and-mouse game in the struggle for freedom of expression in Iran's cyberspace. But an alternative is not currently in sight as Telegram is Iran's messaging system of choice with Iranians accounting for 80.4% of total Telegram users[55].

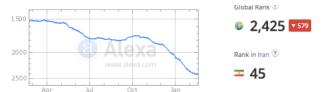
Providing homegrown alternatives for SNSs & MAs

In addition to blocking social media sites or throttling messaging application to the point of uselessness, Iran's regime is also in the business of providing 'homegrown' alternatives such as "Cloob" initially as a replacement to Orkut and then "Facenama" as a replacement to Facebook or "Mehr" or "Aparat" as a replacement to YouTube and most recently "Salam" as a replacement to WhatsApp.

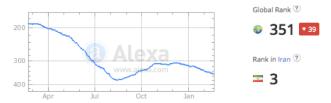
Facenama is currently Iran's 20th most popular SNS (down from 9th in Aug-2015) and resembles more of a large discussion group than full-blown social network like Facebook. It has been witnessing a steady decline of users since 2014 when a group of hackers exposed its then 2 million-user database right after its servers were transferred from Canada to Iran.



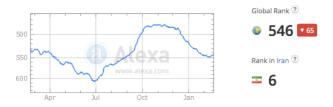
Cloob is currently Iran's 45th most popular SNS (down from 29th in Aug-2015) is suffering a similar fate to Facenama and is losing a large share of its user base. The website is owned by Sabaleda, a company which seems to focus primarily on developing local versions of successful international sites.



Blogfa on the other hand is a successful example and currently ranks as 3rd most visited website in the country (Google.com ranks 1st and Yahoo.com ranks 2nd). It is a popular Iranian blogging platform much like WordPress or Blogger on which a lot of current events and politics is discussed.



Also Aparat, Iran's local version of YouTube is quite popular ranking 6th of the country's most visited websites. Aparat caters to Farsi speaking video watchers and uploaders alike and is able to offer high streaming video content because it is officially regulated.



The rationale of providing homegrown alternatives is clear and authorities have openly argued that Iran's domestic social networks should be strengthened so that the country's users would migrate to them - and consequently away from servers which Iran does not control. All of these alternatives are naturally built and hosted in Iran and either owned, supervised or tightly controlled by state agencies to ensure, as officials argue, that no "immoral content" is posted which would undermine the values of the Islamic Republic. Their success, however, as evidenced by the statistics gathered for this report (below) is quite limited as they tend to fail to attract a critical mass of users since Iranian, and especially civil activists, are well aware of the privacy concerns surrounding government-approved SNSs and MAs.

Another argument used frequently to justify the strategy of building on Iranian-built SNSs and

MAs is that of espionage. On September 6th 2015, the Deputy Prosecutor for Cyberspace Affairs Abdolsamad Khorramabadi told the Fars News Agency that "Foreign cell phone messaging networks such as WhatsApp, Viber, and Telegram... [provide] grounds for widespread espionage by foreign states on the citizens' communications [and] have turned into a safe bed for cultural invasion and organized crime."[56] Moreover, Hamid Jafari, Head of Iran Basij's Information Center, believes that Iranian netizens should save their "valuable time and life, by staying away from [social] networks" such as Viber, WhatsApp and Telegram. He backs his argument by claiming: "If you take a look at the history of social networks, you will reach the conclusion that the so-called social networks are based on Western philosophy, where humanism and human-centered philosophy is their deciding factor. In other words, none of the principles and fundamentals of Islamic philosophy can be seen in these networks". [57]

Circumvention and Anti-Censorship Tools



Despite the allegations of "immoral content" and "espionage", as perpetuated by authorities, they should be viewed for what they are, namely official justifications for tightening control over Iran's cyberspace. Duplicating global internet services and messaging applications with government-produced versions, which covertly provide authorities with backdoor access to user accounts, has been central to Iran's efforts to covertly monitor online content and to identify and prosecute online activists.

However, the success of these alternatives is limited as Iranian netizens are acutely aware that any content on these platforms is regulated and any communication or traffic monitored. As a result, most netizens in Iran are more than aware of their digital security needs which was demonstrated and evidenced by the interviews and surveys VA conducted for this report. 80%-85% of the 200 civil activists who responded to our survey claim that they prefer using messaging apps that are secure and/or not filtered. One interviewee stated:

There's lots of things to be worried about in Iran. You're a born suspect here. [...] I personally use safe proxies to make sure I'm safe, I can't control the rest.

Another said:

Yes I do have concerns. I'm constantly worried about who is actually reading my messages, I think everyone should have this concern in mind, especially in countries where freedom is limited. [...]

Virtual Private Networks (VPNs)

Circumvention tools, such as VPNs, are consequently of great benefit to Iranian netizens and maybe one solution for those who may be in search for unbiased or unmonitored information but who also wish to protect their privacy when accessing otherwise restricted and monitored international social media platforms or whilst engaging in digital communication with friends and colleagues. This is especially relevant for digital civil activists for whom digital privacy promises safety for their networks and themselves. The government itself reports that 7 out of 10 young Iranians are using VPNs[58] but study of VPN use of Facebook users revealed that respondents were almost evenly divided between whether these tools are secure. not secure, or "neither. [59]

A survey on VPN use in Iran confirmed that average Iranian users prefer free and easy-to-use circumvention tools over more secure but less user-friendly VPNs such as Tor for example. [60] The study stated:

... the three most popular VPNs in the sample were Hotspot Shield, Psiphon3, and F-secure Freedom VPN, three tools that are user friendly and allow Iranians with limited technical knowledge to access blocked content. Notably absent from the top three is Tor, arguably the most secure and anonymous circumvention tool available. [61]

This was confirmed by a study which found that only a small percentage of respondents used VPNs for the primary purpose of enhancing personal security online. Rather, price of the VPN service was the determining factor. Another survey report states:

The majority of Iranian users surveyed make use of VPNs primarily as a means of accessing blocked social networks such as Facebook and Twitter (53.9%), with comparatively few using the

technology with the main aim of accessing blocked news content (10.2%), or images or videos (12.5%). More respondents found VPNs most useful as a means of dodging Western sanctions (16.8%), but still nowhere near the number of users that are drawn primarily to social networks. Notably, only a small minority of respondents use the VPNs for their intended purpose: improving personal security (6.6%). [62]

In fact, VPNs in Iran are considered an extremely lucrative business opportunity as a Google search result in Persian for "buy VPN" reveals more than 2 million search results. Despite being illegal, however, there doesn't seem to be a clear consensus on the perceived security of using these tools. Even more interesting is the fact that this business opportunity is being utilized by the same authorities who are doing the filtering and blocking in the first place in order to benefit from the economic advantages but also to make their job of digital surveillance easier since government sponsored VPNs should and cannot be trusted.

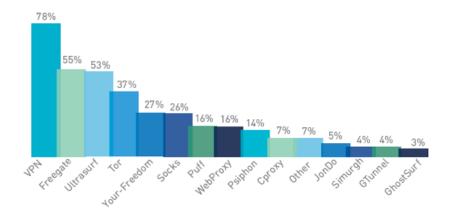
The Daily Dot remarks:

Anti-censorship is so much money, in fact, that many of the same government authorities that do the censoring then turn around and allow the sale of censorship-beating software—in order to line their pockets, offer a false sense of security to Iranians, and even to make their surveillance jobs that much easier. [63]

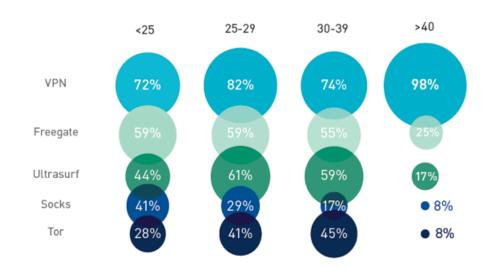
A study researching how Iranians access Facebook found that that 8 out 10 users prefers VPNs although respondents also reported relying frequently on other platforms, such as FreeGate, Ultrasurf, Tor and Socks (graphs below)[64]. Especially respondents over 40 years of age expressed a clear preference for VPNs which may indicate the easier usability of VPNs as opposed to

Socks, which was notably used more frequently by respondents under the age of 25 and which requires higher digital literacy.

Preference for Facebook access



Preference for Facebook access, broken down by age



Volunteer Activists Survey Report

Volunteer Activists Institute (VA) commissioned a qualitative and quantitative survey about SNS and MA usage amongst Iranian civil activist to better understand the digital tools they work with and the environment they operate in. The survey sampled 200 Iranian civil activists. Below are some selected results of its findings.

_

Most used SNSs and MAs for activities related to civic work

Social Networking Sites

Instagram	94%
Facebook	88%
Twitter	40%
LinkedIn	28%
Youtube	12%
Pinterest	12%
Google+	8%

Messaging Apps

98%
82%
72%
54%
48%
42%
36%
24%
14%
12%
8%
0-2%

Hours per week spent on SNSs for activities related to civic work

	0 hours	1-5 hours	5-10 hours	10-20 hours	20+ hours
Facebook	12%	35%	23%	20%	10%
Instagram	6%	40%	31%	10%	13%
Twitter	60%	33%	1%	6%	0%
LinkedIn	62%	28%	10%	0%	0%
YouTube	88%	7%	5%	0%	0%
Google+	92%	8%	0%	0%	0%
Pinterest	88%	12%	0%	0%	0%
Vine	100%	0%	0%	0%	0%

Hours per week spent on MAs for activities related to civic work

	0 hours	1-5 hours	5-10 hours	10-20 hours	20+ hours
SMS	0%	70%	0%	0%	0%
Email	18%	48%	17%	5%	12%
Telegram	2%	20%	40%	30%	8%
WhatsApp	58%	24%	16%	2%	0%
Viber	46%	30%	14%	8%	2%
LINE	96%	4%	0%	0%	0%
WeChat	99%	1%	0%	0%	0%
Facebook	52%	30%	12%	6%	0%
Google	64%	30%	6%	0%	0%
Yahoo	92%	8%	0%	0%	0%
Skype	88%	10%	2%	0%	0%
Tango	100%	0%	0%	0%	0%
Oovoo	100%	0%	0%	0%	0%
IMO	76%	24%	0%	0%	0%
Kik Messenger	98%	2%	0%	0%	0%
Kakao	100%	1%	0%	0%	0%
Nimbuzz	99%	1%	0%	0%	0%
BeeTalk	0%	0%	0%	0%	0%
SnapChat	98%	2%	0%	0%	0%
Blackberry	86%	4%	10%	0%	0%

Primary reasons for using MAs or SNSs over another

Social Networking Sites

Credibility & reputation	84%
News and 1st hand information	71%
Connecting to friends	61%
Publishing news	59%
Not filtered	43%
Number of friends and followers	32%
Addiction or procrastination	12%

Messaging Apps

No filtered content	85%
Security	
No bugs or freezes	79%
Friends who use it	71%
Ease of use	35%

SNS preference in order of priority for activities related to civic

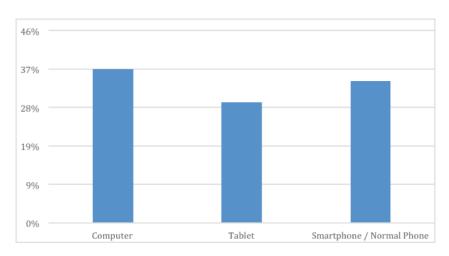
Priority	1	2	3	4	5	6	7	8
Instagram	71%	25%	4%	0%	0%	0%	0%	0%
Facebook	19%	68%	13%	0%	0%	0%	0%	0%
Twitter	5%	2%	60%	23%	6%	3%	1%	0%
LinkedIn	3%	3%	13%	54%	17%	7%	3%	0%
YouTube	0%	0%	3%	6%	11%	23%	57%	0%
Google+	0%	0%	2%	4%	24%	37%	33%	0%
Pinterest	2%	2%	5%	13%	42%	30%	6%	0%
Vine	0%	0%	0%	0%	0%	0%	0%	100%



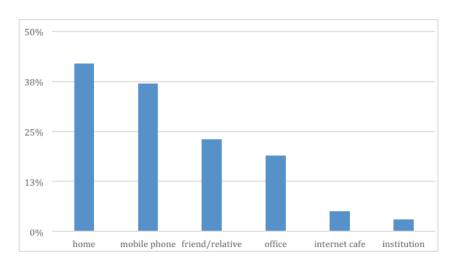
MA preference in order of priority for activities related to civic

Priority	1	2	3
SMS	54%	46%	0%
Telegram	32%	28%	34%
Email	4%	21%	22%
WhatsApp	7%	2%	11%
Viber	3%	0%	17%
Blackberry	0%	3%	4%
Facebook	0%	0%	7%
IMO	0%	0%	3%
Skype	0%	0%	2%
LINE	0%	0%	0%
WeChat	0%	0%	0%
Google	0%	0%	0%
Yahoo	0%	0%	0%
Tango	0%	0%	0%
Oovoo	0%	0%	0%
Kik Messenger	0%	0%	0%
kakao	0%	0%	0%
Nimbuzz	0%	0%	0%
BeeTalk	0%	0%	0%
SnapChat	0%	0%	0%

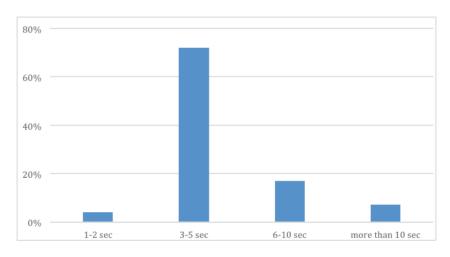
Preferred internet device (used most often and considered most efficient)



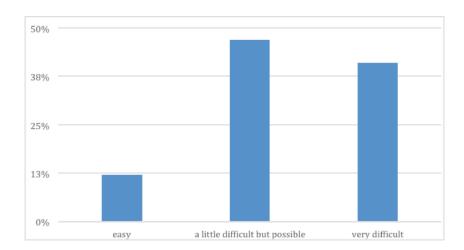
Location of internet access (where internet is accessed from mostly)



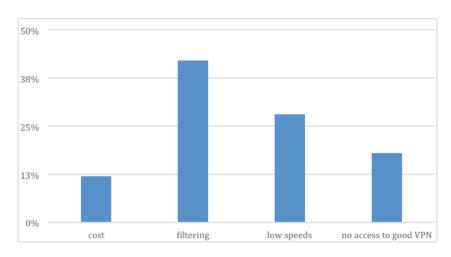
Length it takes to fully load an average website (internet speed)



Access to an internet connection



Biggest issue with internet access



What anti-censorship software is used (source)



Concluding Thoughts

It is evident that SNSs and MAs continue to enjoy overwhelming popular support despite the fact that some of them are officially banned and can only be accessed with illegal circumvention tools such as VPNs. The fact that a resounding 98% of civil activists surveyed by VA use Telegram as their first choice MA also proves that digital security is highly important for civil activists as well Iranian netizens in general. But security alone, although a primary concern, is not the only decisive factor. Technical reliability and popularity with friends rank 2nd and 3rd amongst reasons why Telegram, Email and SMS are considered the most popular MAs for civil activists.

With regard to social networking sites, credibility, a source for unbiased or open information and wide usage amongst friend networks are the top three reasons as to why civil activists prefer to use platforms such as Facebook, Twitter and Instagram.

Nevertheless, SNSs and MAs undoubtedly play a crucial role for civil activists. 71% admit to using SNSs for gaining access to uncensored news and information and 59% primarily use it for publishing and distributing news or information. The more notable trend however, confirmed in our VA survey, is that only 12% of respondents stated that access to internet is "easy" for them with 47% experiencing some problems and 41% stating that access to the internet is very difficult for them.

Also the fact that internet access via mobile phone is almost on par with internet access from home is a trend that should not be overlooked. Mobile internet is the on the rise and Iran will not be an exception to this trend.

There can be no doubt about the power of social media in Iran as its young tech-savvy population is increasingly engaging with social media, acting as both content creator as well as content consumer.

Not even state officials such as Zarif, Rouhani or Khamenei can resist its charm and have been actively working on their narrative and appeal for Iran's populace. In the activist sphere, our survey uncovered that 20% of activists are using Facebook for 10-20 hours a week and 10% even for 20+ hours. On the messaging side of things 38% of activists spend more than 10 hour a week on Telegram with only 2% indicating that they don't use Telegram at all. This is in stark contrast to activists using WhatsApp (58% don't use it at all) and Viber (46% don't use it at all) indicating a clear bias towards online security for civil activists. Nevertheless SMS is still the favorite messaging app with 54% ranking it at 1st priority over Telegram ranked at 2nd place with 32% rating it at 1st priority. Also traditional email is still highly important to activists with 43% rating it 2nd or 3rd priority over any other messaging app.

What this means is that SNSs and MAs as agents

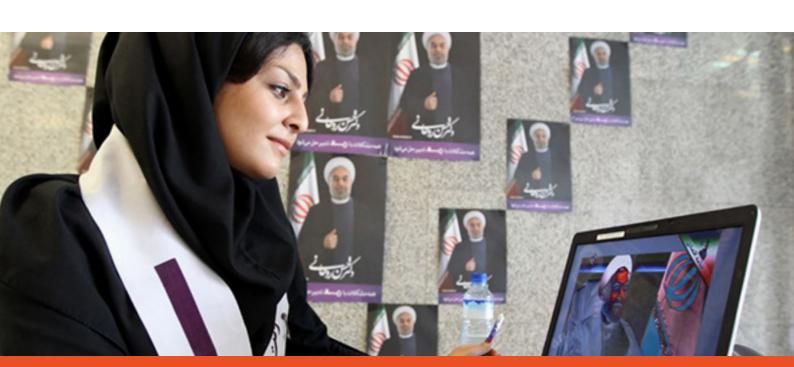
of social media are extremely powerful tools that will continue to engage and influence Iranians for years to come. Attempts to build homegrown Iranian alternatives are only successful if a large enough user base is attracted and maintained which creates engaging content. So far this seems to have predominantly worked for Aparat vs YouTube as YouTube videos are much slower to load due to throttled bandwidth whereas state regulated Aparat enjoys faster video streaming. Nonetheless, when the data from civil activists is compared to other more general surveys about everyday users, one striking difference stands out and it is therefore that we must differentiate between two types of users. The first is the everyday user who mainly uses social media for entertainment, arguably the most common type of user. The second is the civil activist or someone who insists on their right for freedom of information who uses social media predominantly as a source and channel to distribute otherwise filtered or blocked content. It is evident that the former are far more concerned about internet access than the latter who places online security above everything else.

Fortunately, it is noteworthy to mention and conclude that neither Telegram nor Instagram were blocked during Iran's critical Feb-2016 elections and

that all political parties made heavy use of Telegram during the election period. Also the government reported via Communication Minister Mahmoud Vaezi that during the elections no communication problems were reported and that "for the first time, there was no internet, social network or messaging network disruption during the elections".[65] Vaezi was asked if their had been requests for social media disruptions prior to the elections and he agreed by stating:

"We had several meetings and seminars, and we also received suggestions from different parties that the internet and certain social networks should be closed during the elections, but none were accepted ... the role of social networks is to share information. Even the highest people in the country, such as the Supreme Leader and the President, insisted on all services being employed to encourage people to take part in the elections" [66].

This is indeed a promising and welcome change of mentality and a clear indicator of the far-reaching influence and potential power of transformation of social media. It can only be hoped that this is the beginning of a trend which embraces social media and the internet instead of filtering and blocking it.



Endnotes

- 1 Any account with a blue verified badge on their Twitter profile is a verified account to establish authenticity of identities of key individuals and brands on Twitter.
- 2 Firstpost (10-Jul-2015), The hierarchies of censorship: Iranian officials use banned social media, http://www.firstpost.com/world/the-hierarchies-of-censorship-iranian-officials-use-banned-social-media-forums-2335990.html
- 3 Ahmed Shaheed (2014), Layers of Internet Censorship in Iran, http://shaheedoniran.org/english/blog/layers-of-internet-censorship-in-iran/
- 4 The Washington Post (2013), Here's how Iran censors the Internet https://www.washingtonpost.com/news/the-switch/wp/2013/08/15/heres-how-iran-censors-the-internet/
- 5~HRNA~(2013), Here's how Iran censors the internet, https://hra-news.org/en/articles/heres-how-iran-censors-the-internet
- 6 Opennet Initiative (2013), After the green movement: Internet controls in Iran 2009-2012, https://opennet.net/sites/opennet.net/files/iranreport.pdf
- 7 The Washington Post (2013), ibid.
- 8 Freedom House (2014), Ibid., p.11
- 9 Article 19 (2013), Computer Crime in Iran: Online Repression in Practice 2013, p.13 http://www.article19.org/data/files/medialibrary/37385/Computer-Crimes-in-Iran-.pdf
- 10 Iranian Human Rights Documentation Center, Islamic Republic of Iran: Computer Crimes Law, http://www.iranhrdc.org/english/human-rights-documents/ngo-reports/article-19/100000084-islamic-repub ic-of-iran-computer-crimes-law.html
- 11 G. Siboni and S. Kronenfeld (2014), Military & Strategic Affairs, Vol. 6, No. 2, Aug 2014, Developments in Iranian Cyber Warfare 2013-2014, http://www.inss.org.il/uploadlmages/systemFiles/SiboniKronenfeld.pdf
- 12 Article19 (2015), Computer Crimes in Iran: Risky On ine Behaviour
- 13 Advox Global Voices (Sep-2015), Iran's Hardline Supreme Council on Cyberspace Conso idates Power Over Internet Policymaking, https://advox.globalvoices.org/2015/09/16/irans-hardline-supreme-council-on-cyberspace-conso idates-power-over-internet-po-icymaking/
- 14 The Economist (2014), Iran's internet po itics everyone's doing it, 19 Jul 2014 http://www.economist.com/news/middle-east-and-africa/21607894-liberals-and-conservatives-argue-over-restrictions-internet-everyones-doing
- $15\ \ Digital\ In\ The\ Round\ (2014), Social\ Media\ in\ Iran:\ The\ Local\ Control, the\ global\ aspirations,\ http://www.digita\ in the round.com/social-media-iran-internet/$
- $16\ Global\ Voices\ (Mar-2015), Internet\ in\ Iran:\ Evaluating\ Rouhani's\ First\ Two\ Years\ as\ President,\ https://advox.globalvoices.org/2015/03/23/internet-in-iran-evaluating-rouhanis-first-two-years-as-president$
- 17 Global Voices (2014), Iran's Internet Under Hassan Rouhani: Hope and Disillusionment as Narenji Bloggers Face Prison Sentence https://globalvoices.org/2014/06/21/irans-internet-hassan-rouhani-narenji-bloggers-face-book-twitter/
- 18 Vice News (2014), Iran Just Changed Its Mind on Banning WhatsApp, https://news.vice.com/article/iran-just-changed-its-mind-on-banning-whatsapp
- $19\ \ Motherboard\ (2015), Iran's\ 'Smart'\ Instagram\ Censorship\ Isn't\ That\ Smart, https://motherboard.vice.com/read/irans-smart-instagram-censorship-isnt-that-smart$
- $20\ New York Times (2014), Tehran Unfetters Cellphones, and the Pictures Start Flowing, http://www.nytimes.com/2014/09/03/world/asia/iran-speeds-up-cell-phone-connections.html$
- 21 International Campaign for Human Rights in Iran (2015), Khamenei Consolidates Power over Internet Po icy in Hard Line Council He Controls, http://www.iranhumanrights.org/2015/09/khamenei-internet-policy-iran/
- 22 NCRI (2015), Iran regime's Supreme Leader solidifies control of the Internet SPECIAL REPORT, http://www.ncr-iran.org/en/news/exclusive-reports/19091-iran-regime-s-supreme-leader-solidifies-control-of-the-internet-special-report
- 23 NCRI (2015), Iran regime's Supreme Leader solidifies control of the Internet SPECIAL REPORT, http://www.ncr-iran.org/en/news/exclusive-reports/19091-iran-regime-s-supreme-leader-solidifies-control-of-the-internet-special-report

Volunteer Activists

- 24 Small Media (2015), Iranian Internet Infrastructure and Po icy Report: The Rouhani Review (2013–15), https://smallmedia.org.uk/sites/defau t/files/u8/ IIIP Feb15.pdf
- 25 See http://www.bbc.com/news/world-middle-east-20842113 for more details
- 26 See http://www.bbc.com/news/technology-18238326 for mor details
- 27 Reporter without Borders, The enemies of the internet: Special Edition Surveilance, http://surveillance.rsf.org/en/iran/
- 28 David M. Faris, Babak Rahimi (2015), Social Media in Iran: Politics and Society after 2009
- 29 David M. Faris, Babak Rahimi (2015), ibid.
- $30\,$ Sandoval-Almazana, R. & , Gil-Garciab, J.R. (2014), Towards cyberactivism 2.0? Understanding the use of social media and other information technologies for political activism and social movements, Government Information Quarterly (Vol. 31 Issue 3), pp. 365-378
- 31 Journa ist's Resource (2015), How does social media use influence po itical participation and civic engagement? A meta-analysis, http://journa istsresource. org/studies/po itics/digital-democracy/social-media-influence-politics-participation-engagement-meta-analysis
- 32 Harvard Kennedy School Shorestein Center & Carnegie-Knight Initiative (2012), Journalist's Resource, Facebook experiment in social influence and political mobi ization, http://journalistsresource.org/studies/po itics/digital-democracy/facebook-61-mil ion-person-experiment-social-influence-political-mobilization
- 33 Harvard Kennedy School Shorestein Center & Carnegie-Knight Initiative (2012), ibid.
- 34 Pew Research Center (2013), Civic Engagement in the Digital Age, http://www.pewinternet.org/2013/04/25/civic-engagement-in-the-digital-age/?utm_expid=53098246-2.Lly4CFSVQG2lphsg-KopIg.0
- $35\,$ Ghobadi, S. & Clegg, S. (2015), These days will never be forgotten: A critical mass approach to online activism, Information & Organization (Vol 25, Issue 1), pp. 52-71
- 36 Sandoval-Almazana, R. &, Gil-Garciab, J.R. (2014), ibid.
- 37 Advox Global Voices (Sep-2015), ibid.
- $38\,$ TechCrunch (2016), The state of digital in Iran, http://techcrunch.com/2016/01/29/the-state-of-digital-in-iran/
- 39 TechCrunch (2016), ibid.
- 40 TechCrunch (2016), ibid.
- 41 Iran Media Program (2014/2015), Liking Facebook in Tehran: Social Networking in Iran, p.4, http://www.iranmediaresearch.org/en/research/download/1609
- 42 Iran Media Program (2014/2015), ibid.
- $43\,$ Khazraee, E. and Unsworth, K. (2012), Social Media: The New Opiate of the Masses?, International Review of Information Ethics 18, pp. 49–59;
- 44 Iran Media Program (2014/2015), ibid.
- 45 Iran Media Program (2014/2015), ibid.
- 46 David M. Faris, Babak Rahimi (2015), ibid.

- $47\,$ BBC News (2015), Jokes and medicine: the Viber $\,$ ives of Iranians, http://www.bbc.co.uk/monitoring/jokes-and-medicine-the-viber-lives-of-iranians
- 48 Alexa.com (27-Oct-2015), http://www.alexa.com/siteinfo/viber.com
- 49 Radio Free Europe (20-Oct-2015), Russian Web Pioneer Says Iran Blocks Telegram App After Seeking Spying Tools, http://www.rferl.org/content/irandurov-russian-telegram-app-spying/27317116.html
- 50 Radio Free Europe (20-Oct-2015), ibid.
- 51 Radio Free Europe (05-Sep-2015), Iran's Cyberpo ice Call On Internet Giants To Prevent 'Crime' Amid Telegram Concerns, http://www.rferl.org/content/iran-cyberpolice-internet-giants-privacy-concerns/27228394.html
- 52 Radio Free Europe (05-Sep-2015), ibid.
- 53 Radio Free Europe (20-Oct-2015), ibid.
- 54 Radio Free Europe (20-Oct-2015), ibid.
- 55 Khazeni-Rad, D. (2016), Telegram in Iran: More Powerful than Everything, https://www. inkedin.com/pulse/telegram-iran-more-powerful-than-everything-daniel-khazeni-rad
- 56 Advox Global Voices (Sep-2015), ibid.
- 57 International Campaign for Human Rights, Basij Militia Unveils Messaging App that Gives State Access to All Conversations, http://www.iranhumanrights.org/2015/05/basij-messaging-app-viber/
- 58 http://isna.ir/fa/news/93061710204/
- 59 Iran Media Program (2014/2015), ibid.
- 60 Global Voices (Mar-2015), ibid.
- 61 Small Media (Feb-2015), ibid
- 62 Small Media (Aug-2014), Iranian Internet Infrastructure and Po icy Report Aug 2014, https://smallmedia.org.uk/sites/defau t/files/u8/IIIP_Aug2014_v2.pdf
- 63 The Daily Dot (2015), The big money behind Iran's Internet censorship, http://www.dailydot.com/politics/iran-censorship-circumvention-tech/
- 64 Iran Media Program (2014/2015), ibid.
- $65\,$ TheIranProject (2016), For the first time, there was no internet, social network or messaging network disruption during the elections, http://theiranproject.com/blog/2016/03/06/the-elections-in-iran-were-carried-out-without-filtering-and-with-freedom-of-access-to-information/
- 66 TheIranProject (2016), ibid.

ONLINE

www.volunteeractivists.nl

TELEPHONE AND FAX

+31 207 470195

ADDRESS

Stichting Volunteer Activists 37 Kabelweg 1014 BA, Amsterdam The Netherlands