

6. FIBER OPTICS AND THE IRANIAN FUTURE



Communications technology has helped alleviate some of the most difficult challenges faced by certain segments of Iranian society, but it can only do so much. Technology alone can't bring down the government, nor cure an ailing economy.

In this report we have explored how Iranians are using technology in innovative ways to organise communities, access information, and evade pervasive state censorship. Through a series of case studies, we have shown how communications technology has helped alleviate some of the most difficult challenges faced by certain segments of Iranian society.

Since the much-feted ‘Twitter Revolution’ of 2009, commentators have been excitedly heralding the potential for technology to effect transformative social, economic and political change in Iran.¹

¹ For some examples of this coverage, see:
(Washington Times, 2009) (ABC News, 2011)

This optimism has been frequently misplaced: social media was not able to bring about change in 2009, and it is uncertain how much more effective it would be today in the face of expanded government efforts to monitor and control the internet.

Not every emerging tech sector is destined to produce a Silicon Valley, and this is especially true of one operating in an economic environment as challenging as Iran’s. The following features shine a light on two much-hyped topics, questioning whether observers’ enthusiasm is justified.

Our first feature interrogates the potential for social networks to act as effective forums for substantive social and political change by tracing a pair of high-profile campaigns over the course of 2014, cataloguing their achievements and failures. The second feature casts an eye over the emerging Iranian tech startup sector, asking whether it is heading for a dot com boom or bust.

#Iran in #2014: Social Media Campaigns in the Islamic Republic

Antonello Sacchetti

Twitter and Facebook are emerging as key forums to discuss political and social issues in Iran. These social media platforms are both blocked by Iran's broad-reaching internet filtering policy, but many Iranians access them using circumvention tools.

Increasingly, Iranians are adopting and localising some of the advocacy techniques that have become a staple of the global social media landscape in recent years. Among 2014's viral social media campaigns in Iran were #FreelraneanSoldiers and #MyStealthyFreedom, both of which were picked up by Iranian and foreign media.

#FreelraneanSoldiers

On February 6 2014, four Iranian soldiers were kidnapped by the militant Sunni group Jaish al-Adl (The Army of Justice) near the Pakistani border. Three days later the #FreelraneanSoldiers hashtag first appeared on Twitter. It was used for several months and saw a number of spikes in activity as the story developed.

The use of the #FreelraneanSoldiers hashtag enabled Iranians to show solidarity with the captured soldiers, and raise awareness about their plight. The message quickly spread beyond Iran; the fact that the hashtag was written in English helped it to gain traction with global media outlets such as the BBC (BBC, 2014) Al Jazeera (Al Jazeera, 2014) and Al Monitor (Karami, 2014).

When the armed group announced it had executed Jamshid Danaeifar on March 23, activity on Twitter skyrocketed. A Small Media investigation found that in the 24 hours following Danaeifar's execution, 1,972 tweets bearing the #FreelraneanSoldiers hashtag were posted, a 4695% increase compared with the previous 24-hour period (Small Media, 2014). Twitter users condemned the terrorist group and criticized the Iranian government's handling of the situation, demanding more efforts to free the soldiers.

One user was appalled by the conservatives' decision to invest in an advertising campaign against EU High Representative Catherine Ashton during a time of such crisis:

*That... company that made those propaganda billboards
criticising Obama and Ashton couldn't make a simple one for
those five soldiers?*

@mmosafer (in Ibid)

Some individuals speculated that the Iranian government was hoping for the abducted soldiers to be killed, which would give them an excuse to crack down on dissent in Sistan and Baluchestan Province:

I think [the government] wants these soldiers to become martyrs, so they'll have more reasons to suppress Sunnis.

@silence_is_good (in Ibid)

Iranian users tweeted about the crisis for more than two months. The tone of their appeals varied along a continuum from frustration and scorn to heartfelt pleas for the remaining four soldiers to be freed. When the soldiers were released on April 4, the good news spread quickly on Twitter via images, videos, and celebratory text using the #FreeIranianSoldiers hashtag.

The most widely shared tweet in the aftermath of the soldiers' release came from "Instant News", which cited a Fars News report:

Fars: The four captured border guards, and the body of Martyr Danaeifar have been released to Iranian officials.

@Khabar_F (in Ibid)

Although the activity on Twitter was successful in bringing the event under national and international scrutiny, it wasn't simply an awareness-raising campaign. Iranian Twitter users also made use of the hashtag to implore the government to take action to secure the soldiers' release, and express their anger and disappointment with the state's meagre response.

#MyStealthyFreedom

Ambitious social campaigns also took centre stage on Iran's social media landscape in 2014. On May 3 2014, the London-based Iranian journalist Masih Alinejad launched a campaign named 'My Stealthy Freedom', which is active across both Facebook and Twitter. The campaign began when Alinejad invited Iranian women to publish 'selfies' taken in public places in Iran on the campaign's official Facebook page. The catch? None of them were to be wearing the legally-mandated hijab.

This simple and effective campaign challenges the strictly enforced dress code laws of the Islamic Republic. In an interview with ABC News,

Alinejad stated that she does not oppose the hijab, but rather the system by which it is forced upon women:

There are a lot of women who exist in Iran who are suffering under forced hijab, but they don't have any permission from the government to take to the street and protest or take to the media and speak out. They're fighting every day, but they've been ignored.

Masih Alinejad (in ABC News, 2014)

Even Alinejad herself was taken aback by the campaign's immediate success. Within a few days, the page was filled with hundreds of photos and videos featuring women from all over Iran. By May 23, the page had been 'liked' over 345,000 times.



I am tired of this mandatory hejab... my stealthy freedom at the Persian Gulf

Anonymous contributor (My Stealthy Freedom, 2014)



What I fear is living under the shadow of this compulsion forever! not their finding out that I have uncovered my hair

Anonymous contributor (Ibid, 2014)

While the campaign was initially geared towards Iranian women, contributions came flooding in by Iranian men expressing their solidarity.



I, as an Iranian man, totally support my nation's women's rights; especially their freedom of choice of clothing!

Anonymous contributor (Ibid, 2014)

The campaign quickly branched out to Twitter and Instagram with the hashtag #MyStealthyFreedom, and was amplified by excitable European and North American media outlets ranging from Radio Free Europe (2014) to Italy's *Corriere* (2014), which hyped the story and helped it reach a wide international audience.

For a social media campaign, #MyStealthyFreedom is extraordinarily resilient and long-lived; its Facebook page has slowly morphed into a space for the advancement of broader discourses around Iranian feminism.

Vindictive responses from the Iranian authorities and state media were lobbied against the campaign with the intent of discrediting it. The semi-official Fars agency—closely aligned with the Revolutionary Guard—launched a vicious press campaign against Masih Alinejad, accusing her of espionage and disinformation. Iran's state broadcaster IRIB aired a report alleging that Alinejad took mind-altering drugs before being stripped naked and raped by three men on the London Underground in front of her young son (Alinejad, 2014).

In a pointed response, Alinejad posted a video of herself singing on the platform of London's Temple station (Alinejad, 2014). That the authorities concocted such a horrifying story is testament to the apprehension the #MyStealthyFreedom caused amongst the clerical establishment.

The clerical establishment is not entirely united on this front. In a September 7 tweet, Iranian President Hassan Rouhani criticized Iran's 'morality police':

Our society demands modesty, but our culture will not and cannot be corrected with the help of minivans, soldiers and guards

@HassanRouhani (2014)

Activity was once again reinvigorated on the My Stealthy Freedom Facebook page following the acid attacks in Isfahan, which were targeted against women deemed to be improperly veiled (Kamali Dehghan, 2014). Users expressed their outrage by posting videos of protests against the acid attacks. Following the outpouring of emotion, one of the moderators of the Facebook page issued a call for solidarity:

Our inbox is full of messages filled with sadness and despair. The acid attacks have shaken us to the core, but let's be strong

and not lose hope.

My Stealthy Freedom (2014)

'My Stealthy Freedom' has provided an outlet for increased dialogue about and protests against forced veiling in Iran. It has also given Iranian women the opportunity to represent themselves on their own terms, unmediated by Western discourses or Islamic morality. The Facebook page currently has over 700,000 'likes,' and new images of unveiled women in Iran are uploaded daily. The momentum generated by this campaign shows no signs of abating.

Startups or Non-Starters? The Prospects of Iran's Tech Sector

*Antonello Sacchetti and
Kyle Bowen*

²

These figures are hotly disputed. Official International Telecommunication Union (ITU) estimates for the same period put the total at around 23.5 million - a little over half the official government figures (ITU, 2014).

Over the past two years, interest in Iran's startup scene has blossomed among international and domestic observers. This feature introduces the various opportunities and challenges facing Iranian tech startups and their investors, while assessing the prospects for growth in this new sector. Outwardly, the Iranian market is to all appearances a sizeable and tech-savvy one.

Enthusiastic supporters of Iran's startup sector describe Iran as a regional hub of technology with a well-developed communication network. According to (hotly-disputed) official government figures, Iran had 45 million internet users in 2013 (Internet World Stats, 2014) —the highest figure in the MENA region.²

Some sources estimate Iran's mobile phone penetration rate now exceeds 120% (Malayeri, in Startup Istanbul, 2014). These phones aren't all low-tech models, either; mobile internet access is taking off rapidly in the wake of the government's decision to grant 3G and 4G licences to the two main Iranian mobile telephone operators in September 2014 (Small Media, 2014a: 8).

The country's demographics are also encouraging for tech entrepreneurs. Iran's population is young, highly educated, and seemingly well-positioned to develop a thriving technology sector. Around 60% of the Iranian population is under the age of 30 (Memarian and Nesvaderani, 2012), and several Iranian universities excel in science and engineering.

Bruce A. Wooley, the former chair of Stanford University's Electrical Engineering Department, has noted that Tehran's Sharif University of Science and Technology has one of the best undergraduate programs in electrical engineering in the world (Newsweek, 2010). Iran has an abundance of young talent and technological expertise: key ingredients in any tech boom.

In recent months, there have been a number of events working to take advantage of these rich resources. Cities across Iran have hosted Startup Weekends in which aspiring entrepreneurs and developers discuss projects and ideas for collaboration. The capital also played host to the second edition of the TEDx conference at the end of September 2014.

The popularity of such events was among the factors prompting Techcrunch editor Mike Butcher to observe that Iran "seems well on

its way to begin the process of joining the international tech startup community” (Butcher, 2014).

There is growing enthusiasm in the West as well. Last month, the first “Europe-Iran Forum” convened in London to discuss opportunities for investment in Iran, drawing large crowds and high-profile visitors, including former British Foreign Secretary Jack Straw (Hamsheir, 2014).

Not all observers are so sanguine. In a recent talk at an Iranian entrepreneurship conference at UC Berkeley, Yahya Tabesh of the Sharif University of Technology pointed out some of the obstacles to further development of Iran’s nascent startup scene.

Among the issues Dr. Tabesh noted were an underdeveloped private sector, poor technological infrastructure and Iran’s exclusion from the global economy (Tabesh, in Bridge, 2014). A consequent lack of venture capital from domestic or foreign sources has immensely complicated the process of securing funding for startup companies.

A Small Media report found that one of the primary structural issues affecting both the price and quality of internet access in Iran is a government monopoly on bandwidth. The state-owned Telecommunication Infrastructure Company (TIC) holds the exclusive right to sell bandwidth in the country (Small Media, 2014b).

The government’s tight grip on internet infrastructure not only leaves little room for the private sector, but also results in exorbitantly high prices for consumers.

The cost of the internet in Iran is significantly higher than the fees paid by users in neighboring countries such as Turkey (Ibid). Moreover, demand for bandwidth far outstrips the available supply. In February and March of 2014, demand for bandwidth reached 10 terabits per second (Tbps), while available supply stood at a paltry .13 Tbps (Ibid).

This shortage not only exacerbates the issue of price, but also severely impairs internet quality. Internet speeds in Iran are so achingly slow that even president Rouhani has taken note, joking at a press conference:

If we want to download an article we must sit for hours, and sometimes we fall asleep.

Hassan Rouhani (in Haghighatnejad, 2014)

In addition to the high cost and low speed of the internet in Iran, government filtering presents another set of challenges to Iranian entrepreneurs. If the authorities deem any content on a startup's website to be in violation of the broadly worded Cyber Crime Law, they may completely block the platform upon which it is hosted.

As startups depend on reliable, fast and affordable internet access to function, these infrastructural issues erect considerable barriers to further development of the tech sector.

All of these barriers are significant, but Dr. Tabesh insists that the largest obstacle to the development of a startup scene is Iran's global economic exclusion as a result of Western sanctions. The economy and technology are global phenomena, he notes, and Iran cannot develop if it is isolated (Tabesh, in Bridge 2014, 2014).

As The Economist points out, "the overall effect of the sanction regime has been to make it very difficult for Iranian individuals, companies, banks and state institutions to interact with the outside world" (The Economist, 2014: 12).

The interim nuclear agreement reached in November 2013 offered limited sanctions relief, and some American companies have expressed interest in the Iranian market. However, the record fine of \$8.8 billion imposed on French bank BNP Paribas for violating sanctions has made Western companies nervous about running afoul of American regulators (Ax et al., 2014). This atmosphere will make it difficult for Iranian startups to court foreign investment or expand beyond Iran's borders.

Closely related to the status of Iran's relationship with the outside world is the issue of "brain drain." According to an IMF study, Iran has one of the world's highest rates of youth emigration, with over 150,000 educated Iranians leaving the Islamic Republic each year (Esfandiari, 2004). The economic impact of this emigration has been devastating, with the World Bank estimating an annual loss of \$50 billion in 2010 (in Khajepour, 2014)

Iran can boast of having produced a number of hugely successful emigres, including Salar Kamangar, a senior executive of Google and ex-CEO of YouTube, who was born in Tehran in 1977. An active member of the Parsa Community Foundation, an organisation promoting Persian

arts and culture in the United States, Mr. Kamangar hasn't forgotten his roots. However, international sanctions prohibit the foundation from offering grants to most organizations inside Iran (Parsa Community Foundation, 2014) and there is no substantial evidence to suggest that successful Iranian expats are investing in startups back in Iran.

While there is considerable global interest in Iran's startup scene, there remain significant obstacles to its further development. Most pressing are Iran's significant internet infrastructural inadequacies, and its exclusion from the global economy. A potential nuclear deal with the P5+1 may result in the easing of sanctions and the emergence of a more favourable economic climate, but until then the sector will continue to face some difficult challenges. ◇

References

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ABC News, (2011), 'Social Media Fuels Protests in Iran, Bahrain, and Yemen', (last accessed 6/11/2014), available at: <http://bit.ly/IrTwtRViBY>

The Washington Times, (2009) 'Editorial: Iran's Twitter Revolution', (last accessed 6/11/2014), available at: <http://bit.ly/IrTwtRV>

#Iran in #2014 - Social Media Campaigns in the Islamic Republic

@HassanRouhani, (2014) Twitter, (last accessed 6/11/2014), available at: <http://bit.ly/RhniTwt>

Al Jazeera, (2014) 'Call to #FreeIranianSoldiers after border kidnapping', (last accessed 6/11/2014), available at: <http://bit.ly/AljFIS>

Alinejad, Masih, (2014) 'Iranian State Television Faked My Rape', (last accessed 6/11/2014), available at: <http://bit.ly/AlnjdFR>

BBC, (2014) 'Kidnapped Iran soldiers freed in Pakistan by militants', (last accessed 6/11/2014), available at: <http://bit.ly/BBCFISpk>

Corriere, (2014) 'Senza velo, la protesta delle donne iraniane viaggia on line', (last accessed 6/11/2014), available at: <http://bit.ly/FISCorr>

Esfandiari, Golnaz, (2014) 'Iranian Women Snap 'Stealthy' Photos Free Of Hijab', Radio Free Europe/Radio Liberty, (last accessed 6/11/2014), available at: <http://bit.ly/MSFrfel>

Kamali Dehghan, Saeed, (2014) 'Iranians protest over acid attacks against women', The Guardian, (last accessed 6/11/2014), available at: <http://bit.ly/IsfAcid>

Karami, Arash, 'Iranians tweet in support of five kidnapped Iranian soldiers', Al Monitor (last accessed 6/11/2014), available at: <http://bit.ly/AIMonSF>

Masih Alinejad, (2014) 'My Response to IRIB', Youtube, (last accessed 6/11/2014), available at: <http://bit.ly/AlnjdTmpl>

Small Media, (2014) '#FreeIranianSoldiers - Social Media Monitoring', Storify, (last accessed 6/11/2014), available at: <http://bit.ly/smFIS>

Startups or Non-Starters? The Prospects of Iran's Tech Sector

Ax, Joseph, Aruna Viswanatha and Maya Nikolaeva, (2014), 'US imposes record fine on BNP in sanctions warning to banks', Reuters.com, (last accessed 6/11/2014), available at: <http://bit.ly/FneBNP>

Bridge 2014, (2014), 'Fostering High Tech Entrepreneurship in Iran,' Youtube, (last accessed: 12/11/2014) available at: <http://bit.ly/YhyTbsh>

Butcher, Mike, (2014), 'The next tech startup ecosystem to emerge - Iran,' TechCrunch, (last accessed: 7/11/2014) available at: <http://bit.ly/IrTchCr>

Esfandiari, Golnaz, (2004), 'Iran: Coping with the world's highest rate of brain drain,' Pars Times, (last accessed: 7/11/2014) available at: <http://bit.ly/IrBrnDrn>

Haghighatnejad, Reza, (2014), 'The Business Behind the High-Speed Fatwa', Iranwire, (last accessed: 7/11/2014) available at: <http://bit.ly/IrWHSftw>

Hakimzadeh, Shirin, (2006), 'Iran: A vast diaspora abroad and a million refugees at home,' Migration Policy Institute, (last accessed 7/11/2014) available at: <http://bit.ly/IrNmGrtn>

Hamsheir, Phillip, (2014), 'Iranian investment scene 'improving' as relations thaw,' BBC News, (last accessed: 7/11/2014) available at: <http://bit.ly/IrBBCInv>

Internet World Stats, (2014), 'Iran (Islamic Republic of),' (last accessed: 7/11/2014) available at: <http://bit.ly/IRNstts>

ITU, (2014) 'Percentage of individuals using the internet', (last accessed: 7/11/2014) available at: <http://bit.ly/ITUstts>

Khajehpour, Bijan, (2014), 'Can Rouhani reverse Iran's brain drain?', Al Monitor, (last accessed: 7/11/2014) available at: <http://bit.ly/IrBDAIM>

Malayeri, Mohsen, (2014), 'Iran Internet Ecosystem,' Vimeo, (last accessed: 7/11/2014) available at: <http://bit.ly/MlyriEco>

Memarian, Omid and Tara Nesvaderani, (2012) 'The Youth', Iran Primer, (last accessed 7/11/2014), available at: <http://bit.ly/IrPrmY>

Newsweek, (2010), 'Surprising Success of Iran's Universities,' (last accessed 7/11/2014) available at: <http://bit.ly/IrUniNW>

Parsa Community Foundation, (2014) 'FAQ', (last accessed 7/11/2014) available at: <http://bit.ly/PrsCFnd>

Small Media, (2014a), Iranian Internet Infrastructure and Policy Report August 2014, (last accessed 6/11/2014) available at: <http://bit.ly/IIIPAug14>

Small Media, (2014b), Iranian Internet Infrastructure and Policy Report September 2014, (last accessed 7/11/2014) available at: http://bit.ly/IIIP_sept14

The Economist, (2014), "Special Report: Iran," November 1-7, 2014, Volume 413, Number 8911

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