

# Iranian Internet Infrastructure and Policy Report

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July 2014  
smallmedia.org.uk

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## INTRODUCTION

This month's report features an investigation into the rise of the 'clones' in the Iranian tech sector: mobile apps and online services that are being copied in part, or in full from existing apps and services that have been developed in China and the West. We propose that the large-scale 'cloning' of popular services is a key pillar in Iran's ongoing effort to tighten restrictions on Iranians' access to the global internet, and to cultivate wider engagement with Iranian-based sites and services in order to bolster Iran's programme of internet censorship.

In addition, this month's report catalogues the latest statements from Iran's leading voices in the ICT sector, and the latest developments in the fields of Iranian internet policy-making, online censorship, and infrastructure development. This includes some recent announcements about the direction of Iran's 'National Internet' project, the infrastructure needs of its new 'Intelligent Filtering' system, and a survey of VPN users that asks which circumvention tools are the most reliable in Iran today.

# WEBSITES AND SERVICE COMPETITION: IRAN VS. THE WEST

In recent months, Iran has made a number of moves towards establishing an indigenous ecology of mobile applications, at the same time as it has been cracking down on a wide range of Western-produced apps such as WhatsApp, Instagram, and WeChat.

Such efforts to suppress foreign technology suggest a general alignment with the internet and technology policies of China, which has undertaken a [similar purge of Western-produced applications](#), whilst promoting home-grown variants. Both programmes appear to have been enacted in an effort to simplify state monitoring of private communications, and to limit citizens' access to information.

We highlighted a particularly prominent example of these policies in our [April 2014 report](#), where we noted the blocking of chat app WeChat, which was shortly followed by the release of the Iran-produced communications app Dialog, which is incredibly similar to WeChat in both design and functionality.

This wave of new domestically-produced Iranian mobile phone apps has not appeared out of nowhere. In our [January 2014 report](#), we reported that Iran's Information, Communication and Technology (ICT) Ministry announced its intention to lend greater support to Iranian developers in launching and releasing domestic versions of mobile apps and online services, to compete with popular global brands.

In order to investigate the extent to which Iran has been cloning popular apps and websites, Small Media checked [Iran's top 200 websites on Alexa](#), and also gathered information concerning all websites and services covered in our previous reports to find out which globally-used websites and services have Iranian counterparts.

Eleven of the most high-profile and widely used services are listed below:

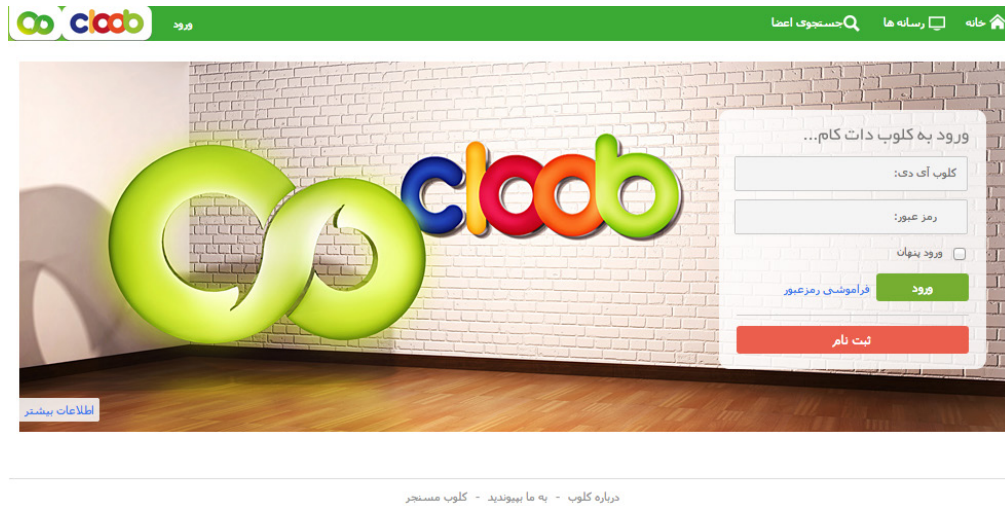
NON-IRANIAN VERSION	IRANIAN VERSION (YEAR OF LAUNCH)
Facebook	Cloob (2004) // Facenama (2011)
YouTube	Aparat (2011)
WeChat	Dialog (2014)
Instagram	Lenzor (2014)
Firefox	Saina (2013/2014)
iTunes Store	BeepTunes (2012)
Google	Parsijoo (2010)
Google Analytics	Webgozar (2003)
Google Play	Cafe Bazaar (2011)
App Store	Sibche (2011)

Below we present an overview of several of these sites, and compare the ways in which Iranian developers have been working to imitate popular global formats with the support of state authorities.

**FACENAMA // CLOOB**



[Fig. I] - Facenama Home Page



[Fig. II] - Cloob Home Page

facebook

Email or Phone Password Log in

Keep me logged in  Can't log in?

Facebook helps you connect and share with the people in your life.

It's free and always will be.

First name Surname

Email

Re-enter email

New password

Birthday

Day Month Year Why do I need to provide my date of birth?

Female  Male

By clicking Create an account, you agree to our Terms and that you have read our Data Use Policy, including our Cookie Use.

Create an account

Create a Page for a celebrity, band or business.

English (UK) Cymraeg English (US) Español Português (Brasil) Français (France) Deutsch Italiano العربية हिन्दी ...

Mobile Find Friends Badges People Pages Places Games Locations About

Create Advert Create Page Developers Careers Privacy Cookies Terms Help

Facebook © 2014 · English (UK)

[Fig. III] - Facebook Home Page

Facenama and Cloob are two popular, indigenously-produced social networks, with Cloob being the oldest indigenous social media site currently active in Iran's online ecology. Both websites have been attempting to offer a 'clean' and 'secure' environment for Iranian users to connect socially, by ensuring that content fits within a state-approved framework of Islamic and Revolutionary values.

Facenama launched in 2011 as a competitor to Facebook, which remains the dominant social network inside Iran despite its being officially filtered. Even Iran's Minister of Culture and Islamic Guidance Ali Jannati *conceded* that over 4 million Iranians use Facebook in March 2014 (though the figure may be much higher, in reality). The founder of Facenama, Alireza Ghasempour, announced that the Iranian social network had just over 1 million users as of December 2013.

From the name of the site itself to the branding, it would be fair to consider Facenama as a rather blatant clone of Facebook. As well as being styled in a shade of blue very identifiable with Facebook, the site additionally makes use of Facebook's own 'like' and 'share' icons. [Fig. IV]

برای زنده نگه داشتن آرمان و ارزشهای دفاع مقدس در گروه دفاع عضو شوید.

کاربر طلایی شوید

خانه باغبان کاربران

علیرضا قاسم پور

سلام به همه کاربران گرامی

مدیر اصلی سایت

اینم به آمار کلی از شبکه :

تعداد کاربران هم اکنون : 1,001,679 کاربر

تعداد مطالب ارسالی : 163,381,272 پست

تعداد نظر های داده شده : 83,807,303 نظر

تعداد گروه های ساخته شده فعال : 36,071 گروه

از همه ی کاربرانی که در رشد فیس نما سهمیم بودند تشکر میکنم

02:09 - 1394/09/16

و 2,337 کاربر دیگر این پست را دوست دارند.

و 332 کاربر دیگر این پست را به اشتراک گذاشته اند.

نظرات برای این پست غیر فعال است

کلیه محتوای این سایت توسط کاربران درج شده است و فیس نما هیچ مسئولیتی نسبت به آن ها ندارد. لینک های مفید : آپلود فایل ، کسب درآمد پاپ آی ، آگهی ویژه صفحه اصلی ، قوانین ، تماس با ما ، تبلیغات ، فهرست مصاحبه های مجرمانه کلیه حقوق برای شبکه اجتماعی فیس نما محفوظ است

[Fig. IV] - Facenama Post, with Facebook icons highlighted

Cloob, an Iranian social network active since 2004, originally owed little to the influence of Facebook. Instead, the site was based on the (soon-to-be-defunct) social network 'Orkut', which was hugely popular in Iran until being blocked in 2004. Though originally designed to fill the market gap left by Orkut, Cloob has since borrowed a number of features from more successful platforms such as Facebook (including the timeline, public wall, and cover image) [Fig. V].

Despite borrowing heavily from influential global social networks in functionality, Cloob insists that it works to uphold Islamic values with regard to the content hosted on the site. The site's monitoring system is far from comprehensive, however. During its investigation of the platform, Small Media encountered a number of instances in which users messaged random accounts seeking sexual liaisons through the platform.

Nonetheless, the platform has found itself host to a number of members of the Iranian establishment, and is more widely utilised by conservative politicians than forbidden platforms such as Facebook or Twitter. Former President **Hashemi Rafsanjani**, ICT Minister **Mahmoud Vaezi**, and even the publishing group of the now-deceased **Ayatollah Bahjat-Foumani** each have a presence on the social network, demonstrating the legitimacy of the platform in the eyes of state authorities.

خانه رسانه ها جستجوی اصنا

Cloob

یک کاور خوب نصب کنید

Cover Photo

Timeline

می پسندم درج کامنت

از تنها راه - لینک مستقیم 3 هفته پیش

روزه هجرت تو از پلی بینداخت مرا کی شود با رطب وصل تو افطار کنم؟!

پارک اطلاع رسانی ریاست جمهوری می پسندم

1393 تابستان بهار

1392

1391

1390

1389

1388

1387

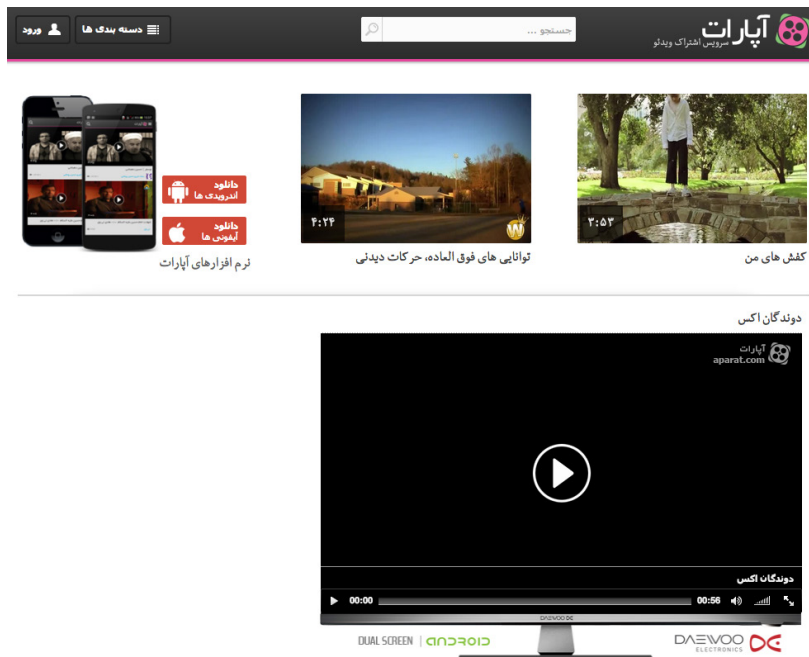
1386

1385

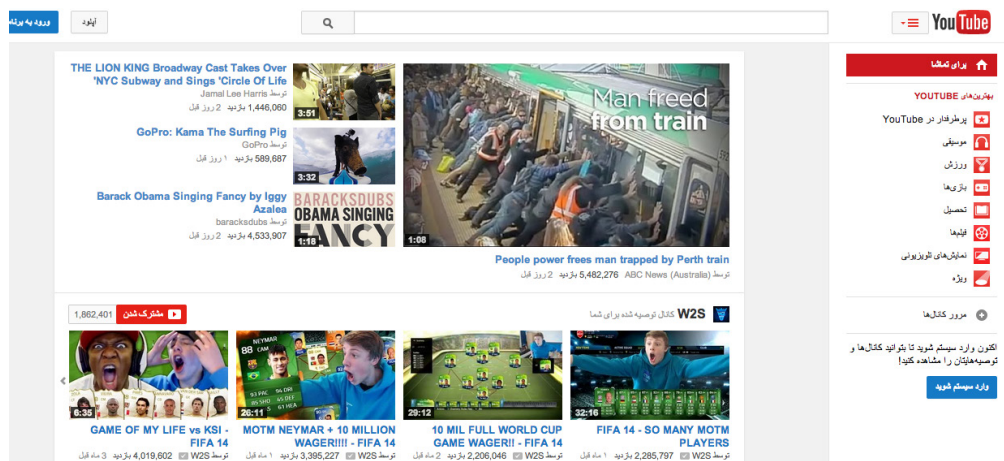
1384

[Fig. V] - Cloob User Page, with 'timeline' and 'cover photo' features highlighted

## APARAT



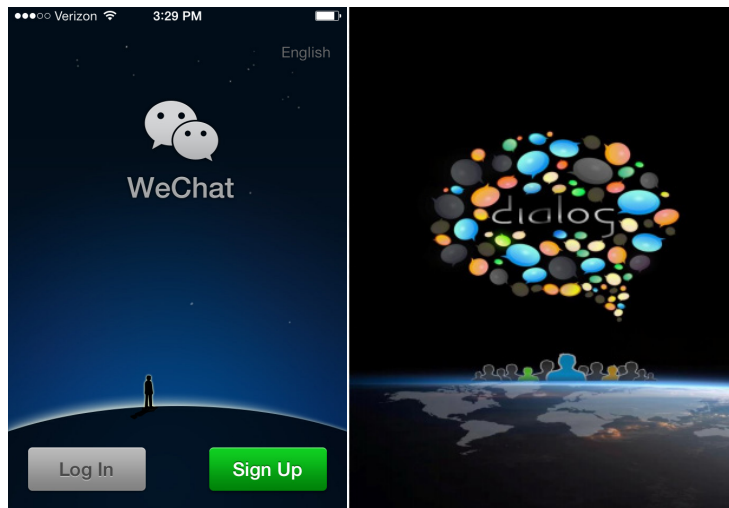
[Fig. VI] - Aparat Home Page



[Fig. VII] - YouTube Home Page

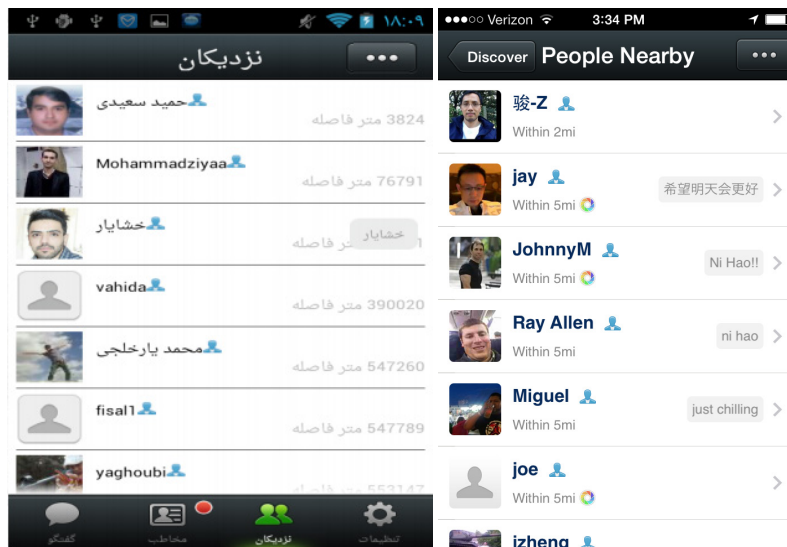
Aparat is an Iranian analogue of YouTube, released in 2011. Though it has struggled to secure as wide a user base as YouTube, its popularity has seen growth as a result of the difficulties arising in accessing blocked Youtube content. Users are able to watch videos on Aparat more smoothly than they are on YouTube, owing to the fact that Iran allocates more bandwidth to the Iran-based service. Although the government has attempted to promote Aparat as a video sharing platform, it has so far seen limited success, in part owing to the lack of original content creators making use of it. Rather than being user-provided, a large volume of the content currently available on Aparat originates from Iranian state television.

## DIALOG



[Fig. VIII] - Dialog and WeChat

Developed by Iranian smartphone and tablet producer GLX, Dialog is essentially a duplicate of the Chinese-produced chat app WeChat, to the point that it even includes a number of features that led WeChat to be criticised intensely by state authorities..

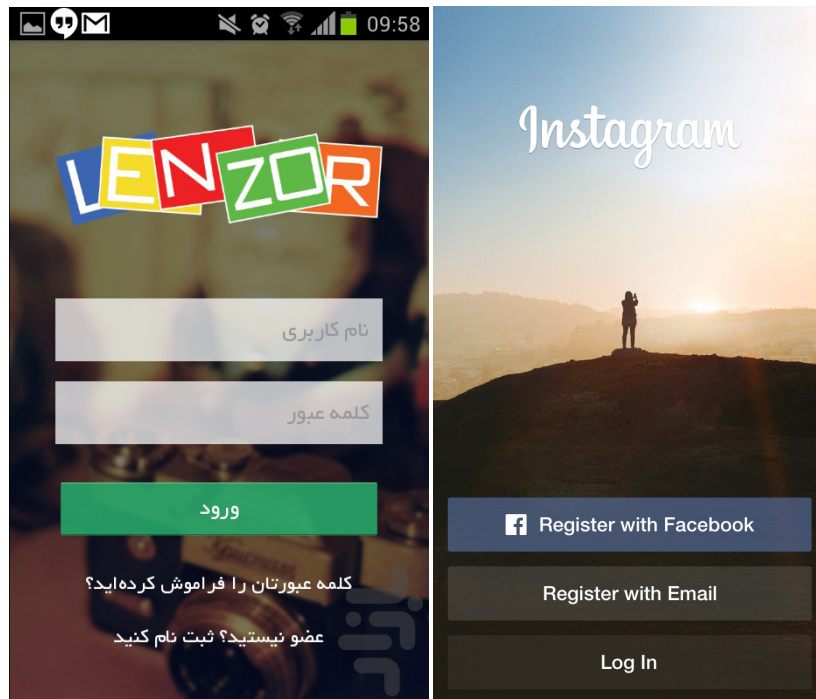


[Fig. IX] - Dialog and WeChat, 'Nearby Users' screens

On 19 December 2013, WeChat was **blocked** by the Commission to Determine the Instances of Criminal Content (CDICC). CDICC justified the ban by stating that the app breached users' privacy by presenting a mixed-gender list of 'Nearby Users' - a system that was ripe for 'moral abuse'. Yet the domestically-produced app 'Dialog' retains the same controversial feature, allowing users to find people of either gender in their vicinity - see [Fig. IX].

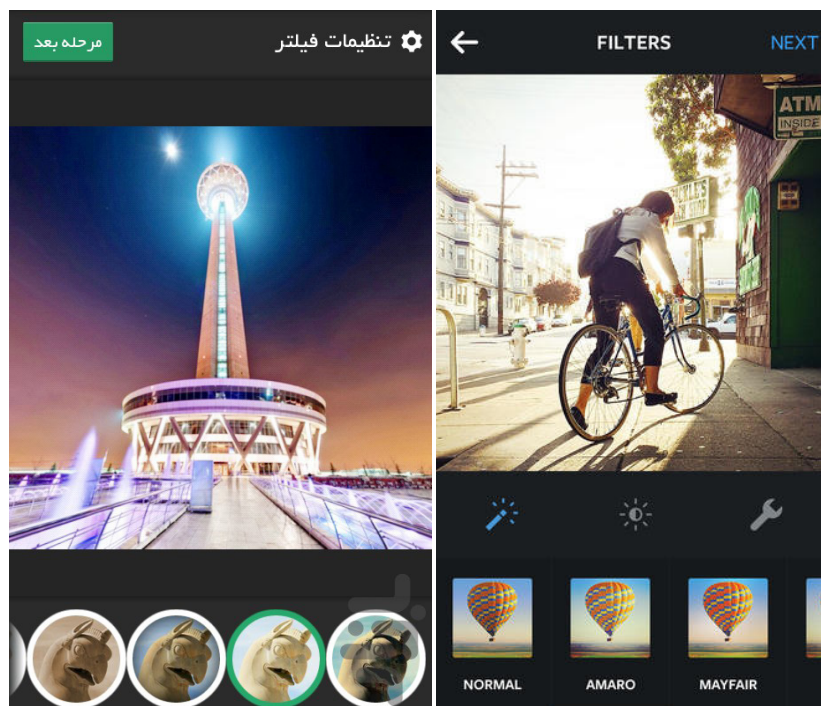


## LENZOR

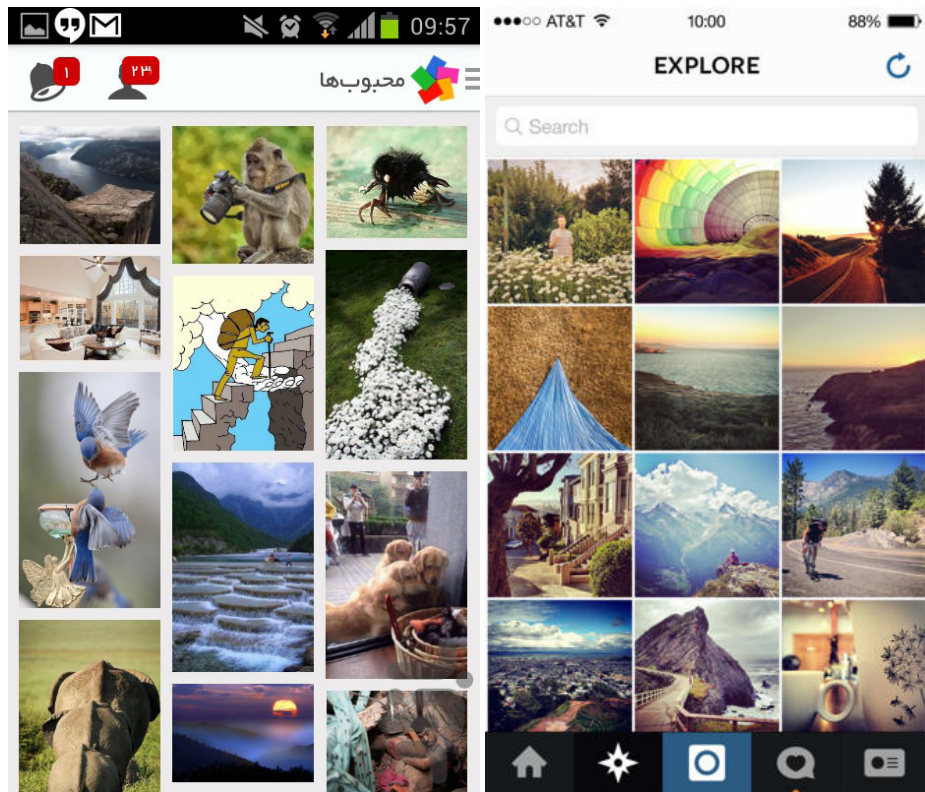


[Fig. X] - Lenzor and Instagram Login Screens

Lenzor is an Iranian photo sharing app that shares a number of similarities with Instagram, in terms of style and functionality. The parallels between the two apps are not difficult to spot - as visible in [Fig. XI] and [Fig. XII], Instagram's 'Filter' and 'Explore' features have been copied and recycled in their entirety in Lenzor



[Fig. XI] - Lenzor vs. Instagram - 'Filters'



[Fig. XII] - Lenzor vs. Instagram - 'Explore'

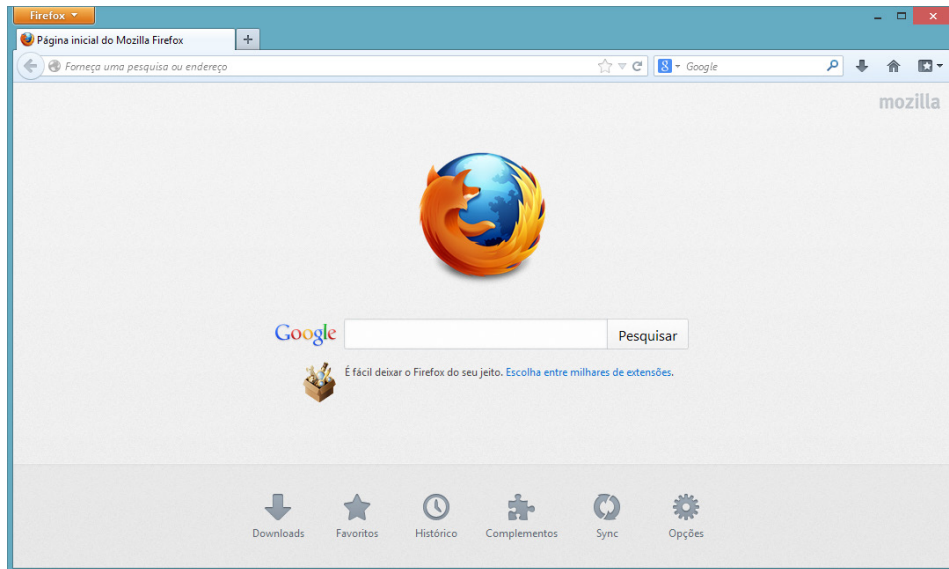
Lenzor was developed by [SABA Idea Technology Co.](#), an Iranian organisation which also owns the websites Cloob and Aparat. It appears that SABA has developed Lenzor in order to provide a permissible alternative for users in the event that Instagram is blocked by the Iranian government.

Previously, SABA undertook a similar approach in the development of Aparat, attempting to market it as an alternative to Youtube after the site was blocked by the Iranian government. According to [the founder of Lenzor](#), the app currently has 13,000 users and 60,000 uploaded images. The [Lenzor page on app market CafeBazaar](#) lists the app as having been downloaded over 50,000 times. The [Instagram page](#), meanwhile, shows over 2,000,000 downloads.

## SAINA



[Fig. XIII] - Saina

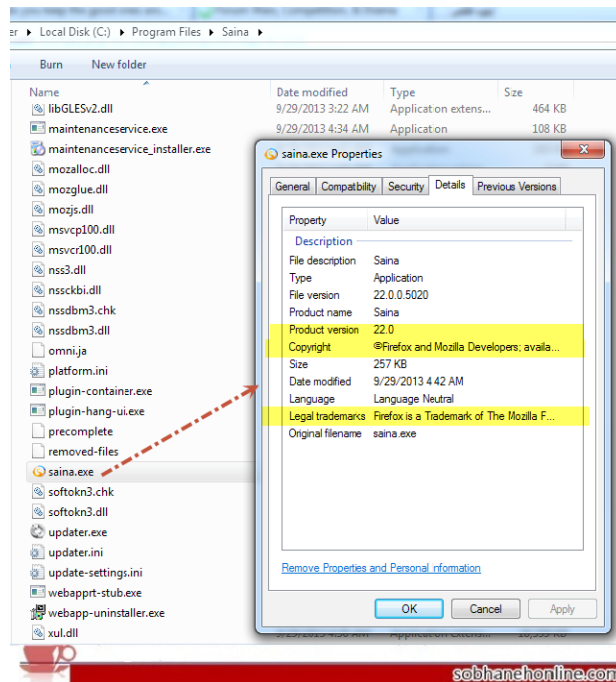


[Fig. XIV] - Firefox

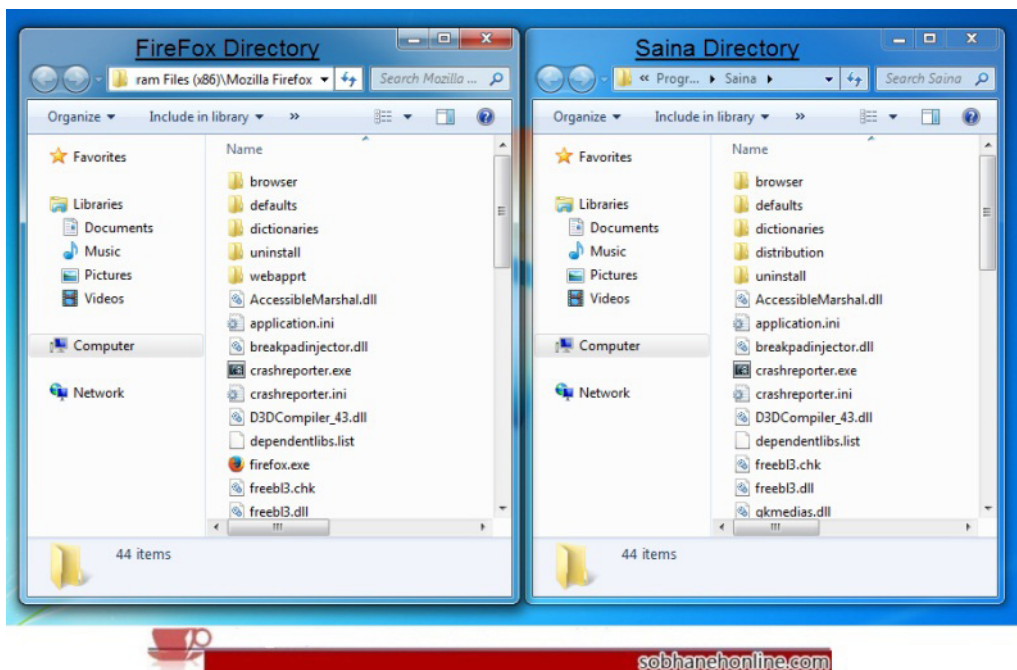
**Saina** is a particularly striking example of the cloning culture within some segments of the Iranian technology industry. Although marketed as a browser developed specifically for Iranian users, the fact is that the browser is little more than a skin for Mozilla Firefox.

**Sobhane Online** was the first website to reveal the similarities between the two programs on 23 December 2013. According to Sobhane Online, Saina is simply Firefox 22.0 with some Persian-language customisation pasted on top. For a simple aesthetic overhaul, it didn't come cheaply, either; the Iranian tech news site **IT Analyze** estimates that Iran invested around 4,000,000,000 IRR (152,000 USD) into the project.

The extent of the architectural similarities between Saina and Firefox can be seen in [Fig. XV] and [Fig. XVI]



[Fig. XV] - Firefox Copyright in Saina



[Fig. XVI] - Identical Directories of Firefox and Saina

**CONCLUSION**

All of this duplication of globally-utilised websites and applications could all be considered as relatively harmless, if it didn't draw so many unsettling parallels with the Chinese system. Seen alongside the development of a 'National Internet' (or SHOMA), and the outright blocking of non-Iranian websites and services, it appears as though the development of indigenous IT services and websites is viewed as a necessary prelude to a more pronounced closure of Iranian cyberspace - although a closed Iranian web might be the ideal, the state recognises that it must provide citizens with comparable access to the online services that they are used to.

Iran retains a number of significant infrastructural deficiencies compared to China, however. Iran does not have the knowledge or technology base to manage and produce high-quality IT devices and services. Whereas China is home to two world-leading telecommunications companies - Huawei and ZTE - Iran is still largely dependent upon the global market for its own technology needs. In addition to infrastructural failings, the tech sector has struggled somewhat to win the trust of Iranian users. Reliability issues with Iranian-produced apps, and concerns about privacy and user security continue to undermine users' faith in the domestic tech sector, meaning that many users continue to make use of forbidden apps and services where they are able. Iran therefore faces an uphill struggle in its efforts to develop a successful and widely-utilised range of domestically-produced alternatives.

## CONTENT FILTERING AND BLOCKED SITES

• **July 21:** An individual who published pornographic images on a social networking site was arrested by Iran's Cyber Police (FATA) in East Azerbaijan. According to FATA, the individual used VPNs and other circumvention tools to publish the images. He did this in an internet cafe in order to prevent being traced. ([Source](#))

## STATEMENTS FROM MINISTRIES AND POLITICIANS

• **July 4:** Ayatollah Seyyed Ahmad Khatami, a senior member of the Assembly of Experts, said he did not have a problem with satellite channels per se, but only with the content of some of the programming on those channels that has been threatening the 'faith and morality' of society. For this reason, he believes that Iran must jam satellite channels and that to do so is to 'forbid wrongdoing'. ([Source](#))

Rasool Jalili, a member of the Supreme Council of Cyberspace (SCC), said that the ICT Minister believes in the necessity of SHOMA, but added that there are some differences in their expectations for the system. The specific differences between the two figures were not outlined. ([Source](#))

• **July 5:** Jalal Pourshaker, the Director of Telecommunication Company of Iran (TCI) in Qazvin province, announced that 70,000 high speed internet ports have been provided in that province. ([Source](#))

• **July 7:** The Director of Iran's Passive Defence Organisation (IPDO) Gholamreza Jalali, stated that social networking sites and chat apps have stored user content, and sold it to various foreign intelligence services. According to Jalali, most of Iran's communication infrastructure devices are not Iranian but are instead sourced from Huawei, Siemens and ZTE. He believes this dependence on foreign technology represents a risk for the country. ([Source](#))

• The Telecommunication Infrastructure Company (TIC) offered a series of reasons for why Iranian users have had problems with their internet connections:

- All ISPs have bought the lowest quality internet bandwidth.
- Some ISPs do not have any capacity for backup bandwidth. This means that if the ISP's bandwidth becomes full, all users will have problems with their internet connections.
- The standard for internet bandwidth is that it is to be shared amongst 1-8 users. Some ISPs however share the bandwidth with more than 8 users. ([Source](#))

• Mehr News Agency interviewed Mohammad Soleimani, the former ICT Minister from Ahmadinejad's cabinet. He revealed the following:

- **The ICT Ministry's budget in 1393** (2014/15) was the highest it had ever been. The main goal of the ministry during this period was to launch SHOMA.
- He finds it very sad that Facebook is blocked for normal Iranian citizens, whilst at the same time it is used by the Foreign Minister, Mohammad Javad Zarif.
- He believes that Rouhani's cabinet must decide whether or not to unblock Facebook. The fact that they haven't made a decision must mean that either they are unwilling, or unable to do so. ([Source](#))

• Ayatollah Seyyed Mohammad Saedi, Friday Prayer of Qom, said that internet censorship protects Iranians against ‘cultural invasion’ and that Iran’s enemies have been trying to undermine it. (Source)

• **July 8:** Hassan Karimi, Deputy Director of TIC, announced that the quality and speed of internet will be improved in the following 45 days (by 31 Mordad // 22 August) on the ICT Minister’s order. Karimi believes that the internet problem is not caused by a lack of bandwidth, as 15% of Iran’s total bandwidth is unused. (Source I, Source II)

• **July 9:** Davood Zareiyan, Director of PR at TCI, announced that TCI is ready to launch internet TVs, as the technology is ready. All that is now required is for the Islamic Republic of Iran Broadcasting (IRIB) to authorise the transmission of content. (Source)

• **July 12:** Hassan Rezvani, Deputy of Monitoring and Imposing Regulation in the Communication Regulatory Authority of Iran (CRA), announced the 7 most common ICT infringements:

- Selling the internet without permission from the CRA
- Selling illegal wireless devices
- Selling communication devices without CRA confirmation
- Providing low quality internet
- Selling internet bandwidth below the standard level
- Overcharging the internet customers
- Violating the Terms and Conditions in the quality of services

• According to Rezvani, 17 billion IRR (646 million USD) was erroneously received from customers as a result of miscalculations, though they have since been paid back. (Source)

• The CRA published a list of the ISPs with the highest number of users in the first month of 1393 (Spring 2014):

- A. Shatel & Asiatech
- B. Pars Online
- C. HiWeb
- D. Saba Net
- E. Pishgaman
- F. Asre Telecom
- G. Fanava & Datak
- H. TCI (Source)

• Ali Niknafs, Chief of the Detection and Prevention Center in FATA, said that all dating websites in Iran are illegal, and lack required permissions for operation. Previously, The Islamic Development Organisation (IDO) had launched Hamsan, a dating website premised on Islamic values. (Source)

• **July 14:** Gholam Hossein Mohseni Ejei, Attorney-General of Iran, announced that no one has been charged for just using Facebook, as there are no existing laws against using the platform. However, people can be arrested if they use social networks as a platform for illegal activity. He made this announcement in reaction to the news that Iran sentenced eight Facebook activists to a combined 123 years in prison. (Source)

• The Islamic Republic of Iran Customs Administration (IRICA) announced that 16,300,000 USD worth of mobile phones had been imported in Khordad 1393 (22 May 2014- 21 June 2014) with an average price of 385 USD per phone. (Source)

- **July 15:** Mohammad Mehdi Kakvan, Head of FATA (Tehran Province) announced that 98% of fake online banking pages in Iran are related to a specific bank, whose name will be revealed unless it drastically increases its security systems. (Source)
- Mahmood Vaezi, the ICT Minister, announced that the third generation of mobile telecommunications technology (3G) will launch in the second half of 1393 (September 2014- March 2015) and that Iranians will be able to make use of it on their smartphones. (Source)
- **July 16:** Khosrow Saljoghi, Vice President of the Information Technology Organisation (ITO), announced that Iran did not contact the Internet Corporation for Assigned Names and Numbers (ICANN) and will not do so in the future. This was in reaction to the news that the US court **ordered** ICANN to pass ownership of top-level domain (TLD) names to a group of American victims of terror and their family members. (Source)
- **July 20:** Saljoghi announced that the SHOMA plan is ready to be submitted to the SCC. On 14 June 2014, Mohammad Hassan Entezari, Secretary of the SCC, strongly **criticised** the ICT Ministry for failing to submit their timeline for SHOMA on schedule. (Source)
- Rezvani said that selling all foreign SIM Cards in Iran is illegal and to do so one must get permission from the CRA. (Source)
- **July 21:** Ali Jannati, Minister of Culture and Islamic Guidance, said that the filtering policy in the CDICC had been changed. Previously, the decision to block a website or service required the support of just 5 members of the committee, but now an absolute majority is required. In addition, he stated that 4.5 - 5 million Iranians have been using Viber and WhatsApp. (Source)
- Mehr News Agency interviewed Karimi and the following was revealed:
  - The TIC has bought an extra 15% internet bandwidth that it will use if there is a problem with the network.
  - The two main reasons why the internet is sometimes cut off in Iran are a) there is interruption on the transmission path; and b) there is interruption on infrastructure devices
  - Iran's internet is supplied from 9 different data points and all of them have backup. This ensures that Iranians do not have problems with their internet when one cable is faulty. (Source)
- Abdolsamad Khoramabadi, Secretary of the CDICC, announced that the CDICC submitted a complaint to the TIC about the unblocking of YouTube and other websites, and said that the TIC must fix the problem. Small Media published **an article** about this story, demonstrating that Iranians could open YouTube, Facebook, and other blocked websites via https protocols. (Source)
- Vaezi said SHOMA needs a further investment of 30 - 40 billion IRR (1.13 - 1.51 million USD). He also revealed that the ICT Ministry's current budget for SHOMA is **12,300,000 million IRR (494.2 million USD)**. (Source)
- **July 23:** Samiollah Sadeghi, a board member of TCI (Tehran Province), said that internet bandwidth will increase by 150% in Tehran Province, and that users will see a significant improvement in their online experience. According to Sadeghi, 450,000 users have been using ADSL in Tehran and the adjacent Alborz Province. (Source)
- **July 25:** Mohammad Aghamiri, a member of the CDICC, claimed that a technical glitch caused YouTube and other websites to become temporarily available. He stated that this issue has now been fixed, although at the time of writing this report, Small Media finds that the workaround



is still in operation. Also, he said that Iran must monitor 1,200 Gb of bandwidth - the entirety of Iran's bandwidth - for the sake of the 'Intelligent Filtering' system. 'Intelligent Filtering' is a term that has recently worked its way into the vocabulary of Iranian officials, and alludes to a more highly-developed filtering system that will help authorities to block specific content or pages on a website, instead of the whole domain. ([Source](#))

- **July 26:** Nasrollah Jahangard, Deputy of the ICT Minister, said around 18 million high speed ports have been created to enable access to SHOMA. He added that Iran needs to attain 20 Tb of national bandwidth and 4Tb of international bandwidth before launching SHOMA. ([Source](#))

- Seyfollah Shahab, Director of ICT in Semnan Province, announced that the internet penetration in Semnan is 52.88% and 197,300 high speed internet ports have been assigned. ([Source](#))

# CIVIL SOCIETY, PROFESSIONAL ORGANIZATION STATEMENTS

• **July 4:** Mehdi Shajari, Director of IT Department at Computer & IT Engineering School in Amirkabir University of Technology said that a plan to produce national software has been started at a number of different universities in Iran, with Amirkabir University of Technology working on the national browser component. According to Shajari, the national browser project has 18 phases and the first phase - a review of current browsers - is complete. The second phase has now started, with one of the current features in development being ‘anti-phishing’ mechanisms that protect users against phishing attacks. When the second phase is completed, 10% of the total project will be done. The name of the national browser is “Naap (نپان)”. (Source)

• **July 5:** According to Mehr News Agency, ‘.ir’ is the most widely-used domain name in Iran, with ‘.net.ir’ being the least popular. The total number of registered domain names sits at 532,755. This figure is the highest in the MENA region, and as the country with the fourth highest growth rate in terms of domain name registration, at 45% growth in the past year. (Source)

DOMAIN NAME	NUMBER
.ir	523,615
co.ir	3,321
.iran (ایران)	2,847
.ac.ir	1,620
sch.ir	390
gov.ir	339
.org.ir	297
.id.ir	285
.net.ir	41
<b>Total</b>	<b>532,755</b>

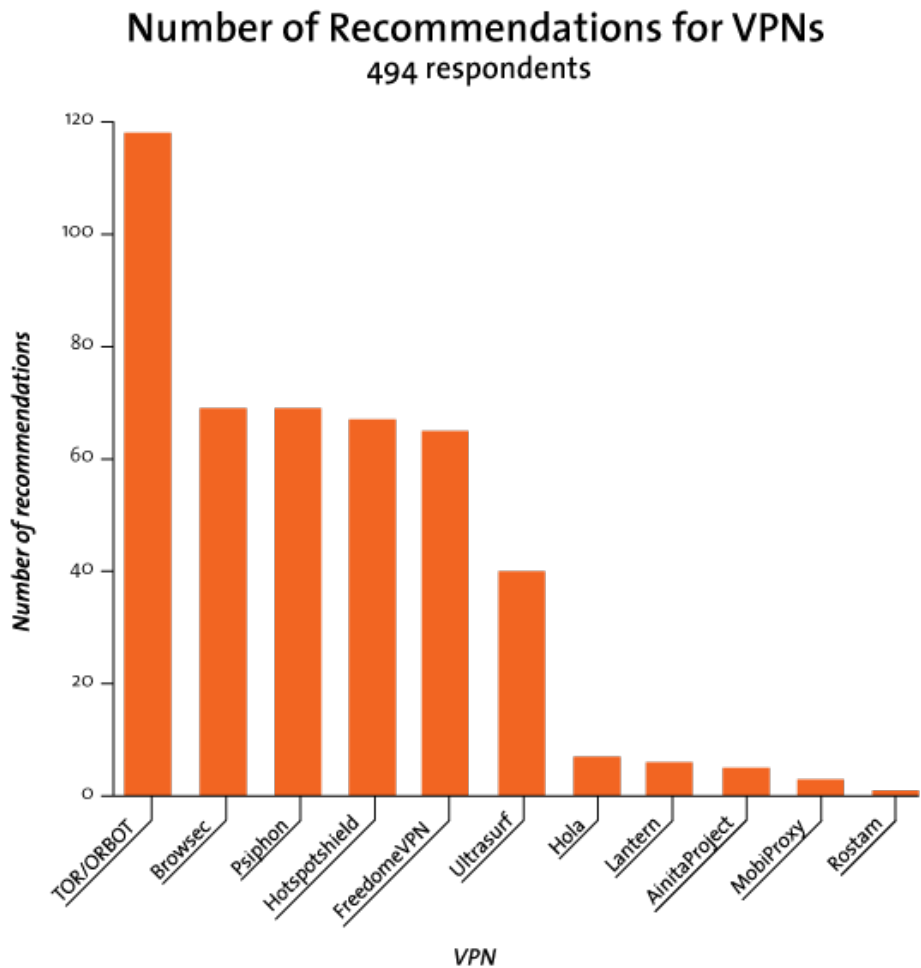
• **July 26:** Mohammad Reza Talaei, President of Software Producers & Exporters Union, said that India is Iran’s primary regional competitor in the realm of software development. Talaei believes that if the government helps software developers, Iran has the potential to be a regional leader in both development quality, and export figures. (Source)

• **July 27:** The National Center of Computer Games held a survey amongst 1,300 experts, researchers and students, and found that:

- More than 50% of respondents believe that Iran should impose limitations on foreign computer games in order to boost the Iranian game development industry.
- More than 60% believe that the computer game industry has an important role in the spheres of culture, economic development, and employment. (Source)

• **July 31:** ICANN responded to the US court order and said “the domain name system has nothing to do with any property of the countries involved” and “ccTLD’s are not property, they are not ‘owned’ or ‘possessed’ by anyone, including ICANN, and therefore cannot be seized in a lawsuit.” (Source)

In July Small Media submitted a questionnaire to a number of Iranian internet users, asking them which of the VPNs commonly used in Iran are working for them. The survey received 494 responses, and recorded the following results:



*[Fig. XVII] - VPN Recommendations*

The survey demonstrated that TOR/ORBOT is the most reliable circumvention tool for Iranian users, although Browsec, Psiphon, Hotspotshield and FreedomVPN have also built solid reputations amongst Iranian users.