

FIGHTS, ADAPTS, ACCEPTS: ARCHETYPES OF IRANIAN INTERNET USE

Arash Abadpour and Collin Anderson



[Acknowledgments]

The authors wish to thank Briar Smith, Mahmood Enayat, Kia H., David Z., and Afra S. for numerous discussions and suggestions. We would also like to acknowledge the help we have received through the course of this study from numerous Iranians who have chosen not to be named in this acknowledgement.

[About the Authors]

Arash Abadpour (arash@abadpour.com) has a Ph.D. in Electrical and Computer Engineering and works as an algorithm designer. He started blogging in English under the pen name Kamangir (Archer) in 2004 and began blogging in Persian in May 2007. In 2012, Kamangir was ranked among the twenty most-read Persian blogs on the internet. Arash maintains active contact with the body of the Persian blogosphere located in Iran and is among one of the most subscribed-to Persian users in many social networking platforms such as Facebook and twitter. He has facilitated contact with Iranian bloggers as requested by the media and researchers in the field, provided technical and logistical support for Persian bloggers based in Iran, and has trained Iranian journalists, social activists, and bloggers, on topics related to citizen journalism. Arash was the Persian-speaking jury member for the DW-World Best of Blogs international blogs awards in 2011, 2012, and 2013.

Collin Anderson (@CDA) is an independent researcher currently researching global trends in online activism, electronic surveillance and Internet censorship. He has also been involved in identifying the international flow of surveillance equipment and exploring alternative means of communications that bypass normal channels of state-control, as well as documenting the ramifications of export regulations and sanctions on democratization movements. He is the author of 'The Hidden Internet of Iran: Private Address Allocations on a National Network' and a forthcoming paper on speed throttling as censorship.

Research supported by the Center for Global Communication's Iran Media Program
Annenberg School for Communication
University of Pennsylvania
202 S. 36th St.
Philadelphia, PA 19104
Phone: (215) 898-9727
Fax: (215) 573-2609
iranmedia@asc.upenn.edu
www.iranmediaresearch.org
<http://www.global.asc.upenn.edu>

[Contents]

1. INTRODUCTION	4
2. RESEARCH ABOUT THE PERSIAN INTERNET	4
3. METHODOLOGY.....	5
4. ARCHETYPES	6
5. INTERVIEW PROCEDURE.....	9
6. RESULTS.....	12
7. DISCUSSION	18
8. ARCHETYPE HEATMAP	23
9. REFERENCES	24

[1. Introduction]

Reports from international human rights organizations, academic researchers and journalists on the persecution and censorship of independent media in Iran, including books, magazines, and newspapers, illustrate the severe impediments against freedom of press and expression.¹ Many observers have expressed concerns for the safety of individuals who criticize the ruling establishment. Journalists, social activists, political opponents and ordinary citizens are routinely arrested and tried under charges such as “undermining national security” and “disturbing the public order” after speaking out against the status quo. Individuals belonging to or identifying with minority religious communities, marginalized ethnic groups or alternative sexualities have no opportunity for using public space to voice their concerns or demands.² A well-known saying in Iran is that there is no lack of freedom of expression in the country; what is missing is “freedom after expression.”³

The narrowing space for dissent and free exchange of ideas in the public sphere and in public space has been one of the driving forces behind Iranians’ use of cyberspace as a mechanism for expression. The Internet is one of the few remaining platforms where Iranians can practice some level of open debate, less susceptible to social and political limitations. Research on Internet adoption and use in Iran sheds light on a large online community engaged in a diversity of activities and expanding at a significant pace. In 2000, the number of Internet users in Iran was less than one million; it is currently estimated that as much as 43% of the country’s population of 75 million has some form of Internet access, with some sources citing an even higher percentage.⁴ Iran was the second Middle Eastern country to connect to the global Internet, and the country’s penetration rate exceeds the average for the region, currently around 40%.⁵ The size and history of the Iranian blogosphere highlights the opportunities made

available to the public by this connectivity, which has led to an active community of bloggers creating large amounts of Persian-language content.⁶ Among several other assessments, a 2008 report put the number of active bloggers in Iran at around 60,000.⁷

In addition to acting as facilitators of public discourse in many parts of domestic society, blogs and social networks also function as a two-way link to the broader world. Thus, any analysis of the internal dynamics of Iran’s social and political environment would be incomplete if it did not consider the production and consumption of content on blogs, social networks and other online platforms. For example, the events that unfolded after the disputed June 2009 presidential election attracted international attention to the media functionalities provided by cyberspace in countries where open political expression is limited.⁸ However, many observers have warned against the unrealistic expectations that have been promoted in such popular media accounts.⁹ There are numerous examples in Iran’s history where the impact of the Internet has been portrayed based on idealism and biases, rather than on objective assessments of circumstances. Online communities often only attract attention when conditions are fluid and chaotic, and therefore, a clear vision of the role of social media is difficult to achieve. Considering the clearly exceptional position of the Internet in Iranian society, the significant investments (both monetary and non-monetary) that have been made in supporting online platforms as a means for the free exchange of information, alongside the potential for unrealistically elevated hopes and inaccurate presumptions, it is particularly important to develop a sophisticated and neutral understanding of the Internet’s characteristics and social functionalities.

[2. Research about the Persian Internet]

Online polls and surveys are familiar features on Persian websites, blogs and social networks as a means of soliciting opinions from Internet users, and many international and domestic researchers have attempted to develop an understanding of the Iranian online environment through these mechanisms.¹⁰ Such attempts are by no means limited to academia and the research community, but also include actors such as domestic

1 International Campaign for Human Rights in Iran (2011).

2 Amnesty International (2012).

3 Mr. Isa Saharkhiz, journalist and head of the press department at the Iranian Ministry of Culture and Education during President Khatami’s administration, is one of the individuals to whom this description has been attributed. Akbar Ganji and Abbas Abdi are amongst a number of other individuals who have been mentioned as the source of this saying.

4 Although exact accounts of adoption are inconsistent and highly disputed, a general range exists based on official government accounts and international polling. See Broadcasting Board of Governors & Gallup (2012); Wojcieszak, Smith, & Enayat (2012).

5 Since a complete study of the presence of the Internet in Iran is outside the scope of this report, the interested reader is referred to Johari (2002); OpenNet Initiative (2009); Reporters without Borders (2012); Statistical Center of Iran (2012).

6 Rigby (2007).

7 Kelly & Etling (2008).

8 Among others, the reader is referred to Hounshell (2011) and Zuckerman (2011).

9 For a comprehensive investigation of the topic, see Morozov (2011).

10 Elson et al. (2012); Chimigi (2012).

pro-government parties, exiled opposition movements, international and domestic broadcasters, commercial advertisers and local businesses. These activities generally involve a questionnaire publicized on high-traffic websites, blogs and social networks. Often, prominent individuals such as bloggers and social media personalities are leveraged to distribute the link and to encourage their networks to participate. On any given day, there is at least one opinion poll on at least one high-profile Persian-language website.

Despite the popularity of such online research, few high-traffic Persian-language websites can claim to have an audience base that would be representative of the whole of Iran's Internet-connected society, much less the general public.¹¹ As a result, any study carried out on these platforms is likely to be skewed toward a particular economic, geographic, social or political perspective. Furthermore, "swarming," the coordinated manipulation of polls by like-minded groups for activism purposes, is a well-known and frequently utilized practice on the Persian Internet, and can significantly skew the results. At the same time, there are obvious and significant limitations on face-to-face (or even telephone) research in Iran, particularly on topics that could be seen as sensitive to the authorities—including security risks to participants and researchers, a resulting reluctance or unwillingness to participate, or an inability to recruit responses from a more representative cross-section of the population using the Internet.

The complicated and politicized role of research conducted on the Persian web, particularly the coordinated swarming of online surveys, can be demonstrated by an early 2012 poll conducted by the Persian language entertainment television channel Manoto 1, which questioned whether its audience would participate in the March Parliamentary elections. The poll was published on the entry page of the channel's website, with the results visible to participants.¹² Shortly after publication, the results showed that a majority of the audience expressed their willingness to participate in the elections. Because many opposition figures favored boycotting, the appearance of such high support for participating was undesirable for many members of Iran's online communities. Additionally, the fact that Manoto 1 is a London-based satellite television channel and not a regime outlet made the results more significant. In response, a number of blog posts were published within opposition circles that urged individuals to take part in the poll and to "figure out what was wrong there."¹³

State-sponsored media, including the Iranian Revolutionary Guard Corps' *Gerdab*, later picked up the story and published a report stating that 68% of the participants of the poll had voiced that they were willing to take part in the elections, "despite Manoto's efforts to support the boycott motion."¹⁴

This example, and the nature of Iran's online communities more generally, raise questions about the accuracy of assessments that are wholly based on online research; however, they do not diminish the value of such research for qualitative data collection, particularly given the difficulty of conducting research in and about Iran. This study sought to complement standard online research techniques by providing a richer picture of Iranian Internet users. The novel research method utilized in this study features in-depth interviews of groups of users that were selected based on determined relationships or characteristics connected to the focus of the investigation.¹⁵ The archetypes in this study, whose characteristics are described in vignettes, are defined based on their relationship with the Internet. Taking this approach, our study considers the Internet as an ecosystem, and works toward providing a more realistic narration of the relationship between the diversity of Iranian Internet users and online environments. These results are not intended to be reflective of the public as a whole, nor are they intended to assess the technical nature of the system when pertaining to issues of filtering or surveillance. Instead, we focus on individual attitudes and perceptions that are likely to shape personal debates around the future of Iran's Internet.

[3. Methodology]

This study attempts to provide a better understanding of the relationship between Iranian Internet users and the virtual world that is comprised of services such as online newspapers, games, social media, social networks and blogs. In order to undertake a deeper examination of the behaviors and activities of Iranian Internet users, a number of archetypical descriptions were constructed to better elaborate on the different types of individuals accessing the Internet in Iran and their relationship with these platforms. This novel approach is meant to qualitatively describe an inclusive set of models that attempt to cover the general population of Iranian Internet users, explored through a process of interviews and survey research.

11 Kelly and Etling (2008).

12 <http://www.manoto1.com/Public/Home.aspx>

13 One example can be found in this blog: http://eyfaryad.blogspot.ca/2012/02/blog-post_25.html. The post was later linked in Balatarin (<https://balatarin.com/permlink/2012/2/25/2940181>), where

a commenter mentions his concerns regarding how the regime would find these results appropriate for their agenda.

14 *Gerdab* (2012).

15 Pruitt & Adlin (2006).

A controlled form of crowdsourcing was utilized in order to create the archetypes. In this process, 152 Persian-speaking online activists, researchers, prominent bloggers and social network users were contacted through an email containing a short description of the goals of the study. These individuals, who live both in and outside of Iran, were asked to provide a set of archetypes that they found descriptive of the domestic Internet-connected population. The contacts were also asked to post a message, in Persian, on their social network accounts, such as Facebook, Google+, Twitter, and FriendFeed, soliciting broader input on the archetypical characters.¹⁶

A total of 54 responses were received through this crowdsourcing effort, ranging from descriptions of 3 distinct archetypes to up to 15. These archetypes were compiled into a single list, merged and edited in order to provide an inclusive set of descriptions, with a final number of 18 archetypes with a unique profile of Internet use and relationship to being online.

The next phase of the archetype creation procedure, which took place between May and September 2012, was to map the archetypes back onto real-life individuals who live in Iran who come closest to representing each archetype. The individuals who had answered our initial email were solicited for candidates from their personal network who fit the corresponding profiles and who could “stand in” for that archetype in an interview. Additionally, candidates for some of the archetypes were added from other sources based on previously known users of different social networks and authors of different blogs. As a result, there were between two and four “stand-in” candidates for each archetype. These individuals were then contacted and asked whether they would be willing to participate in the study. If one of the archetypical stand-ins declined to participate, a substitute was contacted, until there was at least one willing interview participant for each archetype, for a total of 22 interviews.¹⁷ After the archetypical sample was established, a questionnaire was prepared, outlined in Section 5, which inquired about the participant’s methods for connecting to the Internet, specific behavior online and opinions on issues particularly relevant to

the future of the Internet in Iran. Within this paper, the individual stand-ins interviewed will be referred to by the name of the archetype that they represent.

The selection of participants in the archetype creation procedure was distinctly different from a randomly selected group. While there are definite merits in utilizing a random sampling method for collecting the type of information that this study is seeking, we chose a kind of novel “prototyping” or what we call an archetype-based method in order to elicit a more complex discussion that would be both applicable and practical, while concurrently representing a diverse range of behaviors and usage patterns. As the number of individuals in an inquiry grows, it becomes necessary to replace in-depth and descriptive interviews with a multiple-choice questionnaire, due to economies of scale. Therefore, our process was established in order to outline the diversity of points of view and relationships on matters that are often opaque to outsiders. At the same time, these design considerations were made with the understanding that, for reasons previously discussed, unless a randomly selected group has been created with emphasis on representation and a large sample size, the data collected will be only partially representative and potentially skewed. We attempt to collect and elaborate on data regarding common attitudes toward an often sensationally documented ecosystem, and not to serve as public opinion polling or claim evidence of the quantitative popularity of particular trends.

[4. Archetypes]

This section provides the list (in no particular order) of the 18 archetypes outlined in the study, focusing on their core differentiating qualities. The definitions provided herein are based on the responses to our crowd-sourced modeling process, which guided our selection of interviewees. While we provide rough models of responses to our questionnaire, the definitions should not be taken definitively or seen as exhaustively describing the archetypical characters and clusters due to our limited sample size, as well as occasionally incomplete or contradictory answers. These archetypes are established under the hypothesis that the difference in characteristics they exhibit, in terms of access, online activities, reasons for connecting and extent of usage, will lead to differences of opinions and vulnerabilities regarding issues of control, disruption and necessary changes to improve the Internet in Iran.

HIGH SCHOOL STUDENT

Generally, this archetype includes students enrolled in high school or other forms of secondary education.

16 The approximate audience of the message was 1,800 people on Facebook (<https://www.facebook.com/abadpour>), 9,300 people on Google+ (<https://plus.google.com/110918257830787056989/posts>), 3,900 people on Twitter (<https://twitter.com/Kamangir>) and 2,300 people on FriendFeed (<http://friendfeed.com/kamangir>). These groups are not completely disparate and there was some degree of overlapping membership.

17 Three archetypes, described in the following section, had multiple respondents: “Have To” (3 respondents), “Phone 2.0” (2 respondents), and “Dissident Blogger” (2 respondents). Responses were coded based on an average for quantitative responses and the answers shared between participants for qualitative questions.

As a result of growing up with technology, these individuals have had long-term exposure to the Internet and have a clearer understanding of their relationship with online platforms. Engrained in their daily life from a young age, the Internet is a means of finding new friendships and pursuing new interactions. Familiarity with different technologies is a core component of their future professional aspirations, and provides opportunities in new occupations that have been created by digital economies. Moreover, this group's method of access is more likely to be through devices other than just a computer, often with a computer or laptop being secondary to using another form of connecting.

UNIVERSITY STUDENT

In their early twenties and enrolled in a post-secondary educational institution, this archetype has access to the Internet through a fast wired or wireless network connection provided in or by the institution where they study, as well as possibly at home. In addition to using the Internet for their studies, professional development and personal communications, the Internet has replaced traditional entertainment devices for this group through the widespread availability of downloadable films, music and other media content. In light of difficult domestic social and economic conditions, the Internet also provides a crucial mechanism for seeking opportunities to study abroad, find employment or emigrate after graduation.

HAVE-TO

Likely reflective of large segments of the general public, these individuals are defined by a utilitarian relationship with the Internet, accessing it through a dial-up line, shared computers such as CoffeeNets, or the connections of friends and family members. They connect primarily for economic purposes, including online banking or paperwork, such as government subsidy forms that have to be completed online. They may also use the Internet to look up specific information, such as sports news or recipes; however, they are not dependent on it for research. Whether due to comfort level, education, geography, time or other qualities, such users are likely to have limited online social or entertainment engagements.

PHONE 2.0

Often middle or senior aged, this archetype uses their Internet connection primarily for social purposes, such as maintaining existing friendships and family relations through social networks or email. Unlike students and young professionals, these individuals are less interested in the Internet as a means of access to economic

or emigration opportunities. However, they may complement the information and entertainment provided by satellite television with that found on a selection of trusted websites.

UNDERGROUND 2.0

This archetype is a member of a subculture or group marginalized in open society, such as those identifying with alternative sexualities or religious minorities. For these communities, the Internet predominantly serves as a platform that does not exist in public, allowing for safer interactions with those of similar interests and providing access to content that is not available offline. Thus, due to the threats to freedom or safety, these individuals maintain a high concern for personal privacy, independence and online trust.

ACTIVIST

Within most online communities, there are individuals who serve as hubs between content and audiences, especially regarding political or social issues. These individuals may utilize social networks or write a blog, which may be attributed to a real name or published under a pseudonym. Frequently, such individuals have a higher level of formal education and have access to high-speed Internet at home or at university. These users aggregate information by following certain sources regularly and reading domestic newspapers, primarily online. Existing in a broader online and offline network, possibly a campaign, they are in contact with others to act as a connecting point between other activists, bloggers, politicians and academics for the purpose of brokering relationships and trust and disseminating information.

CYBER WARRIOR

There are a growing number of bloggers and activists who have affiliations with the Islamic Republic establishment, including potentially working in an office that receives funding from the government for spreading its message online. They connect to the Internet through the high-speed connection at their office, which is potentially filtering-free or may allow access to content that is not accessible to the rest of the population. Their job mandates that they maintain an awareness and involvement in events unfolding online and offline, but they may also hold a personal ideological interest in such affairs as well. This archetype keeps blogs and social media presences that are followed by the supporters of the establishment and promote a conservative lifestyle. Although the archetype may strongly believe in the goals of the Islamic Republic, it may still criticize some policies or methods, representing com-

peting factions within the government, and it may also serve as a support network, providing technical help to likeminded bloggers.

CIVIL SOCIETY BLOGGER

Reflecting the broad range of content on the Persian blogosphere, this archetype writes on social, economic or political developments in Iran through a broadband connection provided at home, office or university. Such individuals may not have a direct regime-change agenda, but are, nevertheless, critical of governmental policies or current conditions. Their presence on social networks may not necessarily be for social purposes, but they might promote and cross-post content in order to gain a wider readership and interact with an audience. These individuals may be members of a political group or civil society organization, but also may maintain different identities between communities or assume an online pseudonym for security reasons.

DISSIDENT BLOGGER

Those strongly opposed to the Iranian establishment who advocate the overthrow of the regime are limited in the spaces available for political expression. The Internet provides a vital mechanism for organizing and allowing connections between opposition groups inside and outside of the country. At risk of persecution, such individuals are supremely cautious about their identity, likely having witnessed others engaging in similar activities face arrest, prosecution and prison sentences. Central to their security and political activities is the use of filtering circumvention mechanisms, which allow them to access blocked content and to potentially avoid surveillance.

LOW-PROFILE BLOGGER

Differing from other blogger archetypes, this individual connects to the Internet at home or a university for purposes of creative or personal expression. The primary platform for engagement is likely a blog, where he or she writes about different issues, including technological, social and personal matters. The readership of this blog depends on a range of factors, such as type of content published, popularity of the author or audience reach, or frequency of posts, and is variable over time. Due to the personal importance of the Internet to their lifestyle, this archetype may not be technologically oriented but is generally aware of the developments on the web, can utilize anti-filtering tools to access blocked content, and is likely a member of many social networks.

IT BLOGGER

Often working in the fields of web design or software development, these individuals are aware of technological developments for both personal and professional reasons. As a result, such individuals may have many methods for connecting online, own several Internet-capable devices and spend a significant portion of the day online. They may also contribute to a private online magazine on information technologies or write a blog about the developments of the IT world to a large audience group.

FAMOUS BLOGGER

In line with the popularity of blogs in Iran, this archetype writes for Persian-language websites that tend to be well known and less likely to be filtered, and focuses on entertainment or cultural subjects, such as literature, films, personal life, technology and sports. In consideration of the constraints that exist for expression, such individuals generally refrain from making any direct reference to sensitive social or political issues happening inside of the country. Nevertheless, their content is widely read and reposted on different social networks, where they maintain an active presence to communicate with audiences and find new topics for posts.

NEWS READER

With limited independent media sources available in the open public sphere, this archetype uses the Internet as a means of following Persian-language and international news sources, through outlets such as social networks and Google Reader. Their relationship with the Internet is based on passive consumption, rarely producing content aside from possibly commenting on news stories.

DISSIDENT NEWS READER

Similar in behavior to the News Reader, this archetype generally identifies with perspectives that are critical of the current Iranian establishment and consumes online content tailored to this belief. They likely frequent political news sources that are ideologically in favor of democratization or regime change. The Internet provides an outlet for information that is not available offline; however, this content is not likely to be accessible without anti-filtering tools.

WEB 2.0

As a new and changing medium, the Internet has created a number of roles for individuals to act as bridges and trendsetters across countries and cultures, through

sharing and discovering new social networks or social media content to a broader audience. Such facilitators likely write about these topics in a blog and maintain an active presence across many social networks. While the content may have social or economic ramifications, this role differs from the Activist or IT blogger in that the core focus is commentary on the cultural and social implications of the new forms of interaction and participation. Driven by professional or personal interests rather than politics, such individuals are likely to self-censor instead of making statements that may run afoul of authorities.

FUN.HTML

Whereas social media gurus and bloggers may have a broader audience, within smaller networks there are roles for aggregators of trends and content. These individuals are defined by their use of the Internet for leisure and their sharing of entertainment media content to networks of acquaintances. Such people are likely to maintain casual online friendships based on shared interests. The main outlet for these activities is mass emails and presences on social networks.

TELEVISION 2.0

Within the population of casual Internet users, there is a complementary opportunity for individuals who view online platforms as a passive entertainment medium, similar to satellite television. These individuals spend a significant amount of time interacting on social networks, consuming media content and playing online games.

THE ROMANTIC

Despite filtering and slow connectivity, the proliferation of low-cost technology has led to the rapid growth of social networks in Iran. For many, the availability of these platforms and always-connected mobile devices has created a powerful social outlet that serves as an extension of the real world. Such individuals maintain a significant number of online friends, many of whom they have met in person after becoming acquainted online. This individual has friendships that span the real and virtual world, with no clear separation between the two. This role is defined by the personal importance these individuals place on social networks and the time they invest toward maintaining these relationships.

[5. Interview Procedure]

An eight-question survey probed participants about their relationship to and opinions on matters pertaining to the Internet. The questions were open-ended in order to allow the respondents to define a convenient frame for his or her response. Responses were subsequently coded according to the range of collected responses. In a few cases, where more than one individual was interviewed for a particular archetype, the average of the corresponding values for all the participants was used. There were 22 total participants interviewed.¹⁸

The questions were composed in Persian. A translated version follows below, which is meant to help describe the researcher's approach to the questions and contextualize the universe of responses.

1- How much time do you spend online in a normal day?

Participants were asked how much time they spend online. It was anticipated that they would provide a quantitative estimate, as well as possibly a qualitative description of the different factors that impact their online engagement. Most participants provided a range, e.g. "between 2 and 5 hours." The average of the numbers was coded as the unique response in these cases.

2- How do you connect to the Internet?

The questionnaire inquired as to where and through what type of connection participants access the Internet. The coded responses to this question were categorized into the following options based on the range of data from respondents.

1. **CoffeeNet** – Connection is made at a shared public or private location, such as an Internet café or library.
2. **Dial-up** – Dial-up connection at home.
3. **Highspeed** – Broadband connection at home, through ADSL, WiMAX or others.
4. **Office** – High-speed LAN network at a university, school or workplace.

¹⁸ Interviews with 12 participants were conducted through email correspondence with the authors and 10 were conducted by intermediaries in Iran.

5. **Smartphone** – Internet connection on a Smart Phone, through GPRS, 3G, WiMAX or others.

As was expected, in most cases participants volunteered more than one response due to the diversity of places and situations where Internet access is available or professionally necessary.

3- What do you do most often on the Internet? Is there a particular website or online service that you spend significantly more time on?

Participants were asked to elaborate on what they routinely do while online, including mentioning the specific websites or services that constitute a significant part of their Internet activity. Respondents could list as many activities as they wanted, which were then categorized into the following options and coded for evaluation:

1. **Blog** – Reading, writing or doing research in the blogosphere. For the purposes of coherency, blogging was treated as the primary medium, and includes alternative methods of consumption or production of blog content, such as feed aggregation tools like Google Reader or posting by email.
2. **Communication** – Chatting through video, audio or text, over mediums such as Facebook Messenger, Google Talk, Viber, ooVoo or Skype, as well as sending and receiving email.
3. **Download** – Consumption of entertainment media, such as music, movies or books, through file-sharing services.
4. **Gaming** – Playing online games, such as the “massively multiplayer” fantasy game World of Warcraft.
5. **News** – Consuming news and time-sensitive information on topics of interest.
6. **Paperwork** – Filling out forms related to government or private entity services.
7. **Professional Activities** – Using the Internet for business and employment purposes, whether in an office environment or as a freelancer, such as web development or writing.
8. **Social Networks** – Maintaining a presence on social networks, reading or posting content therein, and asynchronous online interactions, using Facebook, Google+, FriendFeed, Cloob, Twitter and others.

Similar to connectivity, in most cases participants volunteered more than one response due to the diversity of ways in which they use the Internet in their personal and professional lives.

4- Would it be an issue for you if a third party were to monitor your online activity? Do you think you are monitored while you are online?

5- Would you be concerned if a third party were to exert control over your Internet connection? Is your Internet connection controlled now?

One of the goals of this study was to provide a better understanding of how Iranians experience and perceive issues surrounding online surveillance and filtering. Two questions were allotted to explore participants' understanding and opinion about the possibility of their use of the Internet being monitored and controlled. The topics of surveillance and filtering were separated in order to differentiate between “monitoring,” in the form of surreptitious data collection on specific individuals or behaviors, and “control,” consisting of limitations on online content or activities imposed through blocking and other means.

The responses to each question were categorized into one of the following options:

1. **Accepts** – Understands that monitoring and control of Internet use happens; finds it necessary or at least to some extent defensible.
2. **Adapts** – Understands that monitoring and control happens; changes personal online behavior in order to avoid potential conflict, such as practicing self-censorship.
3. **Fights** – Understands monitoring and control happens and actively seeks methods to avoid it, such as filtering circumvention or privacy tools.
4. **Ignores** – Understands that monitoring and control happens, but does not believe that it applies to their use of the Internet or that it meaningfully affects their online activities.
5. **Rejects** – Does not believe, or is unaware, that monitoring and control of the Internet occurs.

In the questions, the identity of the “third party” capable of monitoring or controlling Internet connections was purposely left undefined, recognizing the wide array of governments, private companies, family and oth-

er intermediaries interested in taking on such a role, whether for commercial, social or political purposes. In doing so, the study was able to elicit more granularity about the general public's understanding of and opinions about privacy and access to information than if it focused only on the intervention of state security services.

6- If there were any disruption of your access to the Internet, how much would that impact your life?

Substantial public debate has arisen from comments made by Iran's Ministry of Information and Communications Technology about the establishment of a national information network, as mandated under the country's Fifth Five Year Development Plan.¹⁹ Speculation and news reports have implied that this network may lead to further disruptions to Iran's Internet connectivity, including outages timed with moments of political or economic turmoil, more aggressive filtering or the total disconnect of the country from the global network. While interference with connectivity has been a regular occurrence since the widespread adoption of the Internet in Iran, in light of such rumors participants were asked about the potential impact that more aggressive interruptions of service would have on their lives.

In order to allow participants to provide their own understanding of the type of disruption they were concerned about, no explicit form of disruption was specified in the questionnaire; disruption could mean total outage as well as the intentional reduction of speed, more aggressive blocking of anti-filtering tools or dramatic increases in the censorship of high-profile services such as Google's Gmail. As any interference with connectivity would inherently affect online activities, inquiry about the scope of "impact" sought to measure the participant's perception of the threat that disruption poses to their everyday online and offline affairs, rather than an objective vulnerability. Furthermore, questions of disruption may also be an indicator of whether the respondents believe that some of their activities may be the target of government scrutiny.

The responses were categorized discretely within one of the following options.

1. **Significantly Disrupted** – Increased interference with connectivity or specific online services would significantly affect the ability of the individual to engage in personal, professional or social activities. The participant may not be capable of carrying on normal daily functions without access to the Inter-

net, and thus their work and social life would be meaningfully altered by adverse changes.

2. **Partially Impacted** – Increased interference with connectivity or services would create a noticeable impact on their daily affairs, but the respondent does not believe that possible forms of disruption would completely impede their ability to engage in such activities.
3. **No Effect** – There would be no significant impact or disruption to the respondent's daily affairs.

7- Do you have online friends? Do you know and meet your online friends in the physical world as well?

Participants were asked if they had online friends, and whether they meet these online friends in person, in order to assess the overlap of personal relationships between the Internet and the real world. The answers were categorized within one of the following options:

1. **Offline-Only** – Communications and activities with friends are mostly offline.
2. **Online-Only** – Has made friends online, but such relationships are restricted to Internet platforms.
3. **Both** – Overlap between online activities and real world engagement, including maintaining a number of online friends and meeting some of them in person, as well as interacting with offline friends on social networks or blogs.

8- What would a better Internet look like? If you could, how would you change the Internet for the better?

Lastly, participants were asked to provide their understanding of what would be required to establish an Internet more useful for their social, economic or political purposes. Many of the participants provided a long answer to this question. These free-form answers were coded into distinct themes. The majority of the participants described more than one aspect of the Internet where they wanted to see improvements:

1. **Access** – More people need to be able to access the Internet. This response covers both a more widespread geographical distribution of proper connectivity and also providing access to certain demographics that face impediments to facility with Internet use, such as level of education.

19 Majles of Iran (2010), Article 46; Rhoads & Fassihi (2011).

2. **Content** – Content on the Internet, especially content in the Persian language, needs to be improved both in terms of quality and quantity. More original content needs to be produced, as opposed to translating content from English and other languages.
3. **Culture** – A better online culture is needed. Users have to know more about their rights and the possibilities that the Internet provides them. Interactions and a sense of responsibility on the web have to improve in order to avoid abuse, spam, viruses, partisanship and similar phenomena. Web-based communication and interactions on websites, blogs and social media need to improve in order for the Internet to become a more productive environment for promoting social development, building communities and fostering collaboration.
4. **Filtering** – The filtering mechanism needs to be modified. Whether or not it is seen as legitimate, the extent, execution and enforcement of it needs to be improved in a manner that results in less interference with the user's activities.
5. **Price** – The cost of connectivity and online services needs to be more affordable.
6. **Reliability** – There are many instances where access to the global Internet has been disconnected or speed reductions have been imposed country-wide, without notice or proper explanation. These interventions should not continue in a manner that causes significant impact to users.
7. **Sanctions** – Sanctions imposed by other countries hurt Iranian Internet users in their attempt to utilize tools and services that are available to others. These sanctions need to be removed or altered.
8. **Security** – There are unanswered questions regarding the treatment of user security and privacy in the network. Government-backed agencies appear to actively monitor user activities. These violations of user security and privacy need to be rectified or at least occur within a more transparent and accountable framework.
9. **Speed** – Connection speeds need to be increased.

[6. Results]

Responses were tabulated and coded and, where useful, similarity graphs were generated to represent relationships between different archetypes based on shared characteristics.²⁰

The archetypes established within our controlled crowdsourcing process were differentiated based on their reliance on and range of activities on the Internet. We thereby focus our attention firstly on these independent variables of connectivity and usage, and then turn to their association with responses regarding disruption and needs. In this section we consider the direct responses of participants. Broader discussions on the implications of the findings are provided in Section 7.

6.1 CONNECTIVITY

When asked how much time they spend online per day, participants provided values that varied between 1 and 16 hours, with an average daily time of about 5.5 hours. The similarity analysis of archetypes shows three cluster groups and three outliers. The outlying archetypes, Have-to, IT Blogger and The Romantic, represent extreme responses, with average daily time spent online at 1 hour, 12.5 hours and 16 hours, respectively. The first cluster, comprised of comparatively less engaged users, contains the Web 2.0 and seven of the other archetypes, spending two to four hours online.²¹ The second cluster represents the median cluster and contains the Activist archetype, along with four other archetypes that spend about six hours online.²² The third cluster includes Fun.html and News Reader, both of which spend about nine hours online daily.

In terms of how participants connect to the Internet, about 90% of respondents stated that they use a high-speed connection at home or at an office -- a rate of access that does not reflect general broadband penetration rates in the country. It is also worthwhile to note that acquiring a connection at a bandwidth above certain limits requires users to follow a bureaucratic procedure for approval. There is anecdotal evidence that the bureaucracy is frequently bypassed through fake documentation, which one respondent elaborated on as "setting up a fake business and writing formal-

²⁰ In a similarity graph, the absolute position of nodes does not carry any information; rather, the closeness between two nodes denotes their relative similarity on the indicator measured.

²¹ Civil Society Blogger, Dissident Blogger, Famous Blogger, Phone 2.0, Television 2.0, Underground 2.0, University Student, Web 2.0

²² Activist, Cyber Warrior, Dissident News Reader, High School Student, Low-Profile Blogger

looking letters to Internet Service Providers,” as well as the use of personal connections. However, there are limitations to this. For example, one participant stated that due to location,

“...the only ADSL connection that I was able to use was the one provided by the ministry. And there was a lot of paper-work for that. This pushed me towards using WiMAX.” (Web 2.0)

Additionally, seven archetypes reported having a functional Internet connection on their mobile phone,²³ while seven archetypes mentioned access to a network located at their workplace or educational institution.²⁴ Nevertheless, the majority of Internet connections used by Iranians, whether broadband or not, are at lower speeds and quality than the technologies’ capabilities are able to offer, capped by legal service limitations with further deployment of wireless broadband mired in spectrum licensing issues.

Only one of the archetypes, the Have-to, connects through a dial-up connection or at a CoffeeNet. The relationship between members of this archetype and the Internet is different from others in a number of ways. For example, these individuals spend less time online, ignore monitoring and control, and use the web for extremely limited purposes. If a relationship between type of connectivity and types of online activities holds, these attitudes likely represent a substantial portion of the Iranian public, the majority of whom use dial-up.

6.2 ACTIVITIES

Similar to the trend of broadband access among our set of differentiated archetypes, the majority of archetypes (aside from Have-to and Underground 2.0) use at least one social network and social media frequently, with Facebook, Google+, FriendFeed, Twitter, Balatarin and Instagram among the services mentioned. Due to the aggressive filtering of these sites since the 2009 elections, it is difficult to imagine that the majority of the population actively engages in social networking. However, these results indicate the significance of social networking and social media across a spectrum of engaged and enabled Iranian Internet users. Furthermore, it is important to underscore that the utilization of social networks is not inherently limited to any particular position on the political spectrum, illustrated by the role played by the Cyber Warrior archetype in supporting conservative groups’ participation in social media.

23 High School Student, Underground 2.0, Cyber Warrior, IT Blogger, News Reader, The Romantic

24 University Student, Activist, Cyber Warrior, Civil Society Blogger, Low-Profile Blogger, News Reader, Dissident News Reader

Due to speed throttling of connections to foreign websites and slow connectivity in general, many noted the practical challenge of downloading large files without access to a work or school-related network.

Nevertheless, these results and extended responses indicate the popularity of such platforms for purposes like following news, sharing content, communicating and leisure. As one respondent noted,

“There was a time when Facebook was the most important social network for me. We used to arrange meetings on this social network to talk about social taboos. We had campaigns over Facebook and we did a critical analysis of the current education policies. When that passed, FriendFeed became important for me. It was really amazing to see most of the web gathering together in one cozy place.” (Low-Profile Blogger)

The archetypes in this study generally follow other common uses of the Internet: following news and finding information are the two other significant uses stated; 15 of the archetypes follow news online (all but Low Profile Blogger, Famous Blogger and Fun.html) and 11 archetypes use the Internet for communications purposes.²⁵ Ten respondents²⁶ mentioned using the Internet for their professional activities with the workplace often being the sole source of their online access. Finally, in line with the historical importance of personal and professional blogs on Iran’s Internet, half of the respondents mentioned blogging, either as producers or consumers of content.²⁷ The Civil Society Blogger described the importance of online publishing platforms, “my blog and different social networks allow me to be my own writer and my own editor” without the need to modify content in order to comply with external guidelines.

Downloading files from the Internet was not listed as a major activity by participants, and many noted the

25 All but Television 2.0, Web 2.0, Dissident Blogger, Civil Society Blogger, Cyber Warrior, High School Student, Have-To

26 High School Student, University Student, Have-To, Activist, IT Blogger, Famous Blogger, News Reader, Dissident News Reader, The Romantic

27 High School Student, Activist, Cyber Warrior, Civil Society Blogger, Low-Profile Blogger, IT Blogger, Famous Blogger, Web 2.0, The Romantic

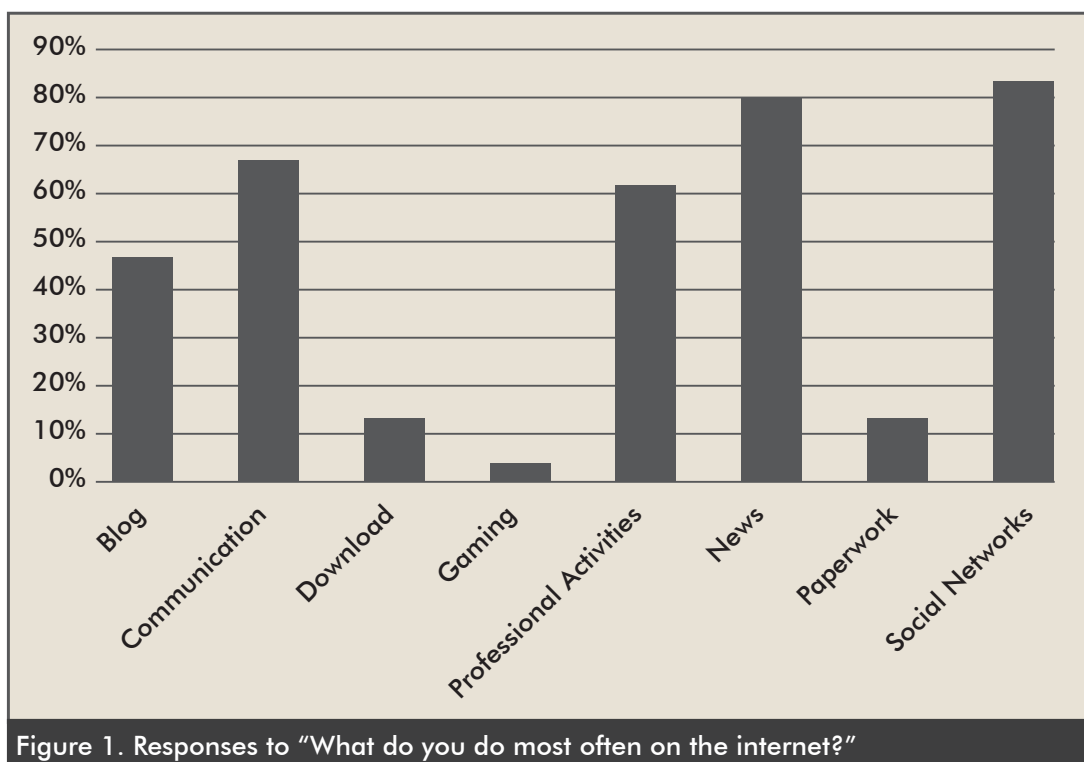
practical challenge of downloading large files without access to a work or school-related network due to speed throttling of connections to foreign websites and slow connectivity in general. Several participants did mention the use of BitTorrent and file-sharing websites like 4shared, which is consistently ranked within Alexa’s top fifty most visited sites by Iranian audiences.²⁸ One participant did note that downloading content was his main source for “films, music, and TV series.” Due to similar speed and connectivity issues, gaming is an activity practiced by only the Television 2.0 respondent. In part, the low rate of online gaming can be attributed to limitations created by service restrictions stemming from American sanctions against the country, as well as bandwidth and throttling issues. Lastly, a minority of the respondents, the University Student, Low-Profile Blogger and Have-to, suggested that they used the Internet for bureaucratic and e-government services. The relatively low rate of utilization of e-government services among our respondents may be due to the fact that many of these services are new to Iran and their offerings are still very limited. In the case of the Have-to archetype, this was also the means through which potential interviewees were identified, timing outreach to CoffeeNet locations in coordination with the deadline for filing taxes.

Finally, about three quarters of participants stated that their online and offline relationships collide through mediums such as social networks, email, chatting and blogs. Within this response group, there are at least three subtypes of behaviors: maintaining real-world relationships online, limiting the real-world reach of on-line-origin connections, and meeting online friends in person. When coded, responses indicated engagement in each behavior was approximately equivalent. When probed more deeply, apprehension about meeting online friends in person was apparent and differences were observed in comments regarding the initial offline meeting of online friends, as well as in the number of online individuals that archetypes have met offline. This theme of apprehension cuts across cultures and situations, where individuals attempt to reconcile personal trust over an impersonal Internet. However, it especially holds true in Iran where trust networks are important to social interactions due to political and social limitations.

This initial reluctance did not seem to affect the end strength of the relationship, with a number of interviewees stating that they maintained business, romantic or long-term connections with such individuals. Outside of issues of trust, respondents often expressed that geography was the most limiting factor in their ability to connect with online friends, since they were engaging with people from across Iran and outside of the country. Moreover, the separate identity that indi-

Figure 1 shows the aggregate responses regarding the types of activities that participants engaged in online.

28 Alexa (n.d).



viduals are able to establish online appears to provide relationships with a kind of social freedom that does not exist offline. As the University Student described the balance between his two ‘identities,’ “I maintain parallel online friendships with them and for some the real-world and the online friendships are quite different in nature.” Although little apparent correlation exists between certain archetypical characteristics and willingness to bridge online and offline relationships, the two archetypes that are defined as low-engagement (Have-to and Phone 2.0) were those that reported not pursuing any form of online friendships, limiting their electronic communications to the maintenance of pre-existing, real-world relationships.

6.3 MONITORING AND CONTROL

Issues surrounding monitoring and control of the Iranian Internet were highly significant to our respondents, including those who may not necessary hold political views in opposition to the establishment or participate in what might be considered sensitive or oppositional activities. However, specific attitudes and responses toward issues of monitoring and control, and the disruption to their daily lives that this represents, differ significantly among archetypes. Considering the significance of this issue from a larger human rights and policy perspective, we present an overview of the data collected from respondents here and defer a larger discussion on its implications until Section 7.

Monitoring, whether in the form of “lawful intercept” of targeted individuals or as mass surveillance, was accepted by the majority of the participants as a potential occurrence. The response to this potentiality is to practice self-censorship or ignore monitoring as irrelevant to their activities. Only about a third of the participants stated that they fought against monitoring through the use of privacy-preserving tools, such as Tor and VPNs.²⁹ The individuals more likely to engage in protecting their privacy are generally those involved in oppositional political activity or who have expressed significant knowledge of technology: the Underground 2.0, Activist, IT Blogger, Dissident Blogger, News Reader and The Romantic archetypes. Some stated that their caution was based on having been warned by authorities about online activities previously. Inversely, those likely to ignore surveillance are respondents whose online activities are fueled less by political motivations and activities, with the exception of the Civil Society Blogger and Dissident New Reader, who may believe they are less exposed to potential liabilities because they keep their activities within a defined set of

The predominant reaction from our participants to the issue of control on the Internet is to actively bypass it.

behaviors that they believe do not cross the redlines of the authorities. Finally, those whose response to online surveillance can be qualified as “adapting” because they change their online behavior in order to avoid potential conflict volunteered that they engaged in “self-censorship.”

In parallel to the possibility of an Internet connection being monitored, participants were also asked about their understanding of a content control mechanism being present in their relationship with the Internet, through filtering or manipulation of online content. While the former question pertains to the collection of information on users, the latter refers to a direct and explicit effort by a third entity to influence the form and type of content available on the Internet. Compared to the issue of monitoring, a more vigilant approach and sense of personal applicability about the issue of filtering was observed in responses, evident especially in the use of anti-filtering tools and widespread reliance on blocked online platforms. A minority of the participants acknowledged control mechanisms as a necessity and accept this fact without attempting to circumvent it (High School Student and Phone 2.0). Another minority segment indicated that they were aware of control mechanisms on the web but ignored them (Low-Profile Blogger, Have-To and IT Blogger). Considering the reliance of both of these minority segments on social media and social networking sites that are often blocked, reconciling contradictory responses (such as using Facebook while at the same time reporting agreement with or acquiescence to the blocking of websites) might hint at the commonplaceness of bypassing the filtering regime, which we discuss further in the following section.

The predominant reaction from our participants to the issue of control on the Internet is to actively bypass it. While “control” was raised ambiguously in our questionnaire, it is important to mention that many participants defined, within their responses, the issue explicitly as the filtering mechanism that restricts the type of websites that users can view. Additionally, the responses of several of those who did not state that they fight control are intriguing since these respondents maintain an active presence on blocked social media sites that must be accessed by some bypassing mechanism. This is the case for the IT Blogger, who noted, “my current connection is not under control, at least obviously,” and

²⁹ Underground 2.0, Activist, IT Blogger, Dissident Blogger, News Reader, The Romantic

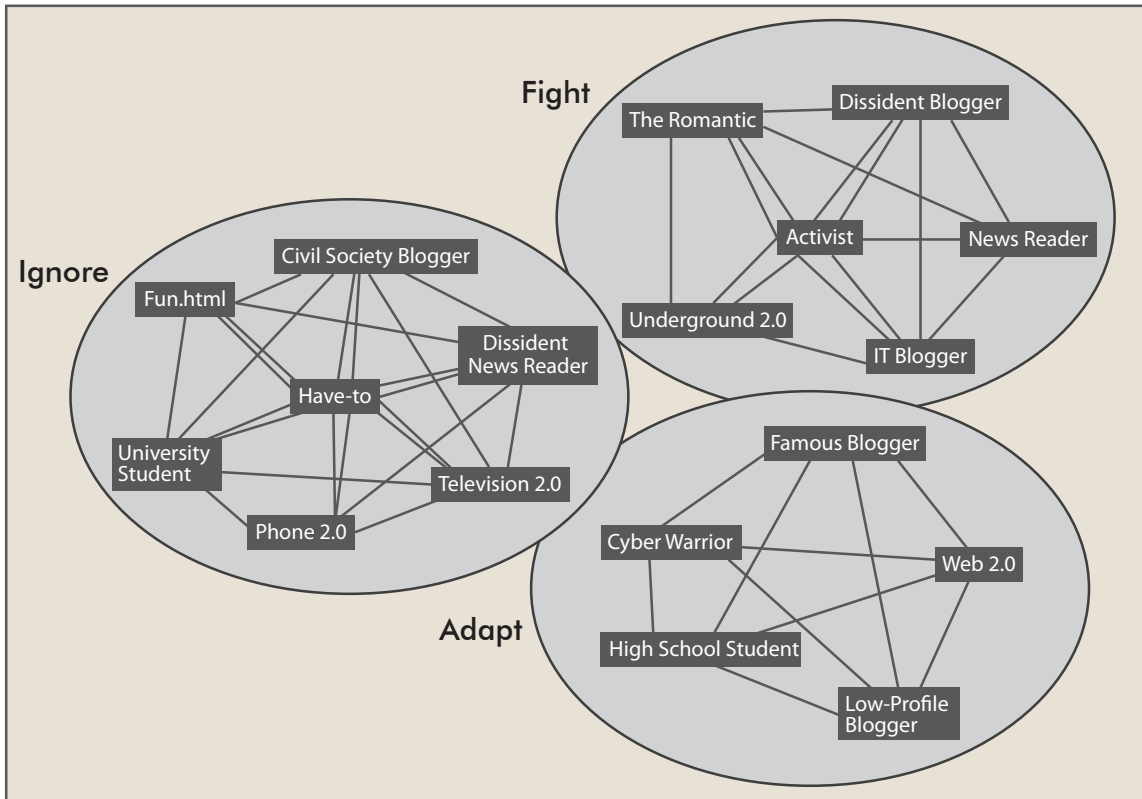


Figure 2. Similarity graph for responses to the possibility of being monitored during online activity

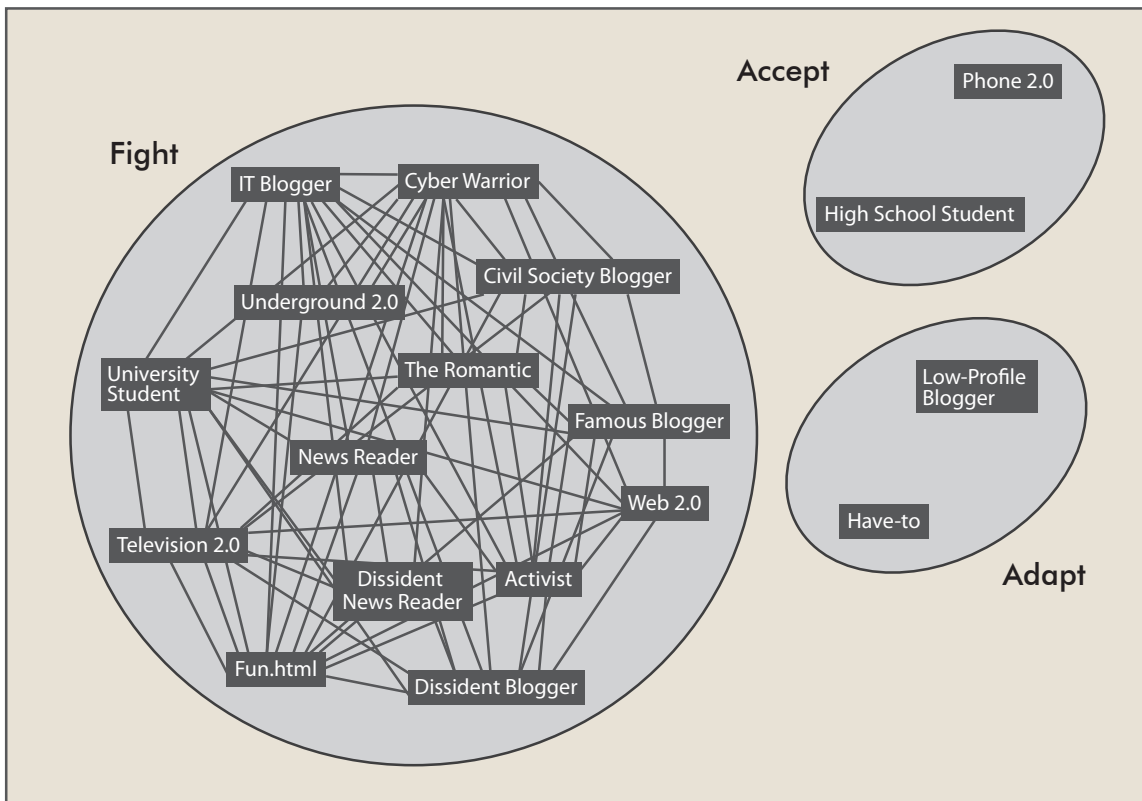


Figure 3. Similarity graph for responses to the possibility of having online activity controlled

for Phone 2.0, who is active on sites like Facebook. Such contradictory signals are likely more than anything evidence of how ingrained filtering and the use of VPNs are in the daily habits of the general public.

Figure 2 shows the similarity graph for the responses to the possibility of being monitored online. This figure should be compared with Figure 3, which shows reactions to the issue of filtering and control of online content. Whereas with the possibility of being monitored, the archetypes cluster almost equally between adapting, fighting the system and ignoring it, respondents nearly uniformly state that they actively bypass systems of Internet control and filtering.

Finally, further disruption of Internet connectivity and content accessibility was reported to strongly interfere with the personal and professional activities of the majority of participants (13 respondents). Only one individual, Phone 2.0, indicated that disruption of the Internet would not have a measurable impact on life, stating that the most significant difference would be that they would have to make phone calls instead of using video chat. Of those remaining, respondents who report that disruption would create a measurable but not determining impact on their daily affairs are mostly those who also report low engagement with the Internet in terms of daily usage and types of activities. As the Television 2.0 archetype noted, “because I do not have any particular work or study-related engagements, not being able to access to the Internet would not disrupt my life.” For these individuals, access is not something that is taken for granted in daily life, and thus they maintain less dependency on Internet services.

These results are observed in the large cluster formed in Figure 4. The fact that so many archetypes report that Internet disruptions represent a substantive impediment to their daily affairs is made all the more significant in Iran, since disruption of the Internet connection is a common occurrence, especially when there are socio-political events that threaten the country’s political establishment.

6.4 INTERNET DEVELOPMENT

The open-ended question regarding what a better Internet would look like elicited the most feedback and demonstrated the emotional investment of most of the sample in realizing a better Internet culture in Iran. Many of the participants provided detailed descriptions of their understanding of the reasons behind the current challenges to online services in Iran, and similar to the issues of monitoring and control, we save deeper comment on the social and political implications of responses and themes for the next section.

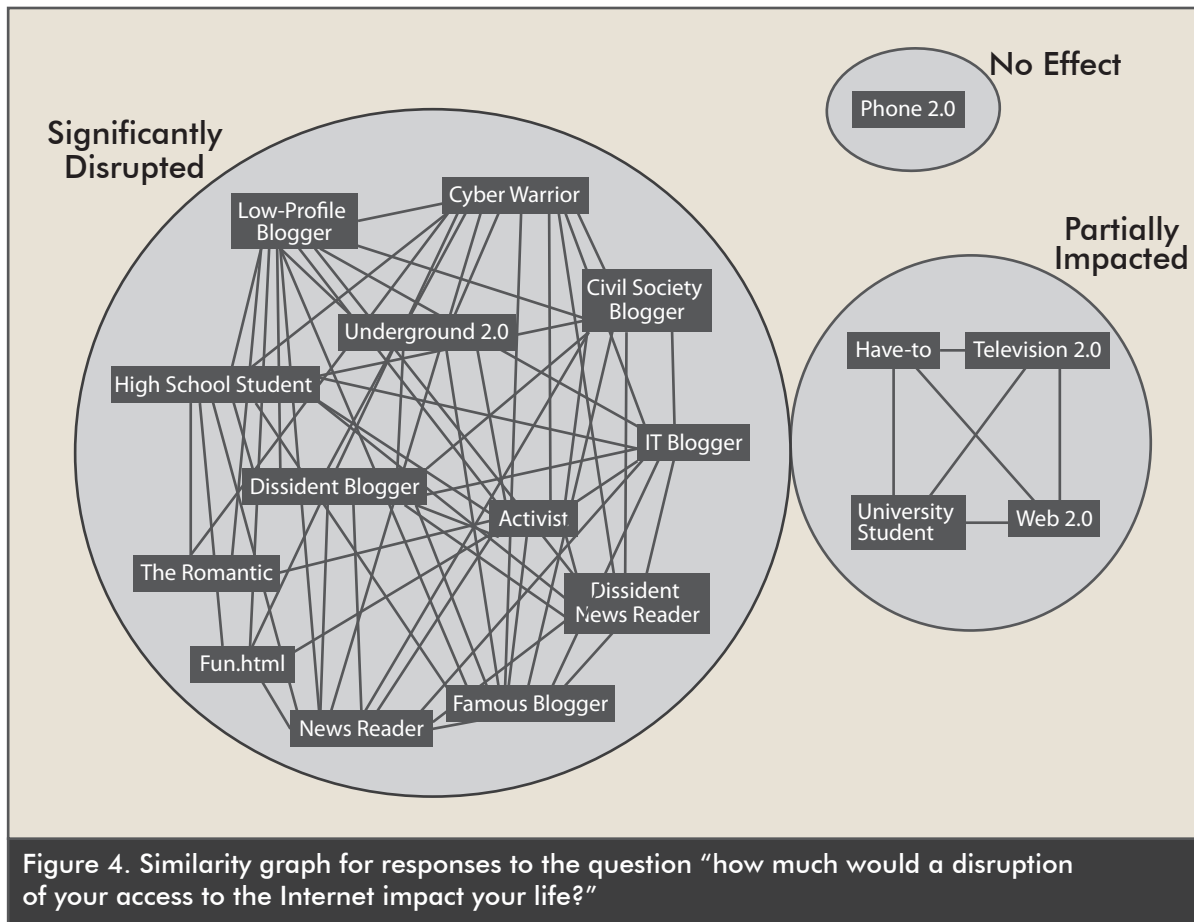
Predictably, considering the popularity of social networks among this sample, modifying the current filtering regime was the most frequently mentioned area for improvement (14 respondents), followed by increasing the speed of the Internet (cited by 13). Improvement of the culture of online Persian communities (6), reducing connection prices (5), and increased reliability and security (4 each) were the four other most frequently suggested directions for making the Internet better.

Not all of the problems or areas that need improvement are the result of overt impositions by governments (Iranian or otherwise); respondents brought up deeper problems of technology, education and online culture. Because picturing a better Internet was purposely left open to respondents, a wide array of counterproductive social characteristics and behaviors within Internet communities were mentioned, which generally could be remedied by more education. Many respondents outlined a need for more user awareness about their rights and responsibilities when online, to mitigate both security and more policy-related issues like malware, poor telecommunications governance, spam and bullying. More broadly, several participants described how a lack of tolerance for dissenting voices and intractable partisanship creates strong politicization of online communities that makes dialogue difficult. The Famous Blogger archetype extended this to the issue of intellectual property and content creation:

“...there are practically no copyright protections for bloggers when their content is copied and pasted elsewhere without their consent. This is something that is not taken into consideration by any means in Iran.”

Three archetypes (the Dissident Blogger, Fun.html, and News Reader) stated that providing Internet access to more segments of the general public (beyond academics, engineers and university students who have traditionally had high-speed connections) was essential.

Finally, the lack of Persian-language content (described by the High School Student as the desire for “the Persian web to cut its dependence on content from foreign websites”), the need for increased security and the need to relax external sanctions imposed on Iranian users were discussed with evident passion by several respondents, but were not cited as frequently as increased connection speed and a less stringent filtering regime.



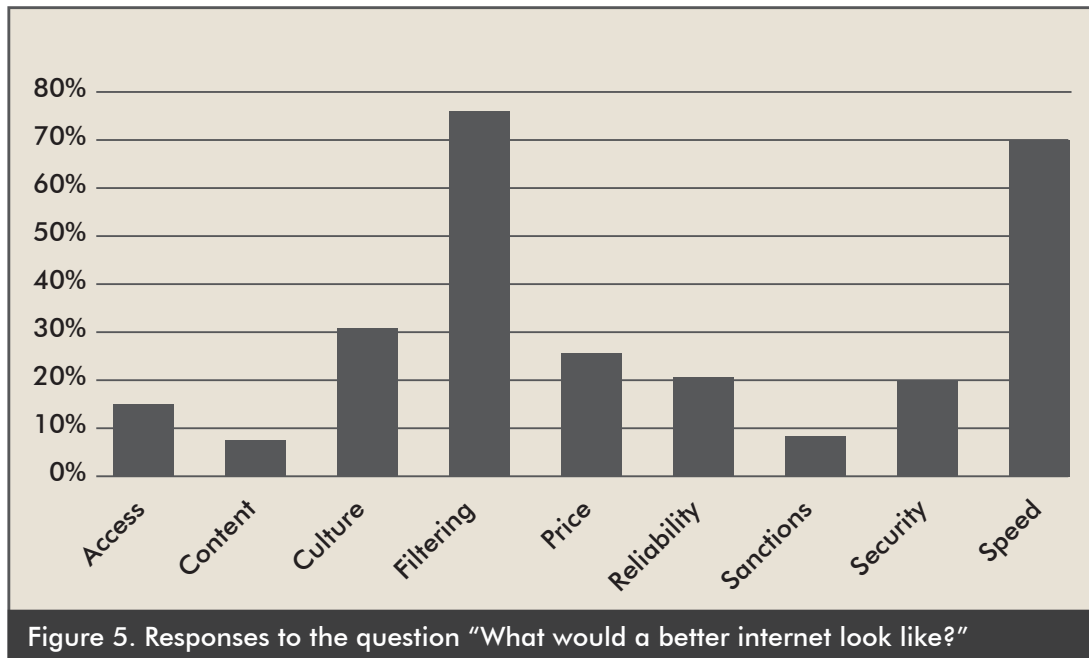
[7. Discussion]

Considering the critical importance of online platforms to large sections of Iran's social and political sphere, as well as the significant attention and resources a diverse set of actors dedicate toward fighting attempts to stifle access, it is critical to make a concerted effort to break down some of the monolithic views that are widely held on the role of the Internet in Iran. While our research begins to present a deeper picture of the diversity of behaviors and attitudes that exist amongst the general population of users, the results represent only first steps in an attempt to outline a broader methodology for further exploration. We start this section by discussing our qualitative methodology and then elaborating further on our findings, concluding with brief thoughts on how to design further iterations of similar research. Our interviews indicate a broad and differentiated set of patterns that not only begins to demonstrate behavioral diversity within Iran's Internet users, but also highlights the importance of conducting both quantitative and qualitative research based on archetypal use cases. The method utilized in this study for creating the archetypes was designed in order to acquire information from a wide group of individuals that takes

advantage of collective intelligence and familiarity with the topic of study. While the method was predicated on the hypothesis that these user typologies would map to attitude differences elicited by the questionnaire, the validity of the method and individual archetypes was testable by measuring the similarity and clustering of responses. Here, correlation analysis could be performed to verify that the archetypes are independent. A correlation heatmap (discussed in Section 8) can be used to indicate the commonalities of archetypes based on where they offered similarly coded answers.

Our sample coalesces strongly on issues surrounding connectivity, online activities and attitudes and responses to having their activities controlled, particularly those archetypes that have an educational, political or professional interest in the Internet. Participants in this study indicated they had higher than average speed access than the general population, with connections through ADSL, fixed lines or wireless broadband.

While the respondents in our sample generally use the same social networks and follow trends that would be expected of a European or American audience, it is important to study differences and context in order to



better protect the Internet's role in free expression for Iranians. One cautionary case that illuminates this issue is the change made to Google Reader in late 2011, when the social features of the service were migrated to the company's nascent social network, Google+. While Google Reader is a globally popular tool for following large amounts of news sites in an efficient manner, it was frequently singled out by many of our respondents as an activity used on a daily basis for very specific reasons. Dubbed by Iranians as "Goooder," the content followed on Reader is fetched by Google's servers and stripped of unnecessary media content, which means that users can read news from blocked sites and avoid some of the frustrations of having a slow connection. Before the change was made, a number of popular personalities had served as content curating hubs, aggregating news widely from sources around the web for thousands of followers. The social features that were removed had previously created an information sharing community that was impossible to filter without blocking all of Google. Conversely, Google+, due to the way it is hosted, is significantly easier to filter. Unlike Google+, Goooder also allowed pseudonyms and more anonymous usage. When a Google product manager announced the changes in October 2011, Iranians, imploring the company to reconsider the change, inundated his Google+ profile with comments.³⁰

"Don't do it PLEASE! we need Google Reader. We need to share, to follow, to write notes and have communication with our friends. It'll change our life :("

"Here in Iran we're fighting with censorship and filtering from the IR government. We have used google reader social features for reading filtered sites and news publishing as part of our efforts to establish democracy in our country. Here in Iran the government is the number one enemy of any social networks."

For Google, the simple action of retiring legacy services had significant, unexpected repercussions for a community that had come to depend on its products, shutting down a critical channel of communications. Similarly, the social network service FriendFeed was purchased by Facebook in 2009 and has not seen platform updates since. As a result, most of its global users have switched to other sites, despite the fact that Facebook has not shut it down. FriendFeed still remains extremely popular within our Iranian sample and was mentioned as much as Twitter, Google Reader and Balatarin.

All participants acknowledged that their online activities could be subject to monitoring, but most indicated that they accepted or ignored the possibility of surveillance by "avoiding publishing private details about my life in any form on the web" (High School Student) or self-censorship through leaving the discussion of "sensitive issues for people who are based outside the country" (Web 2.0). At least two participants (Dissident Blogger and News Reader) reported that their awareness of the monitoring regime stemmed from being warned by authorities about their online activities on several occasions. Our data also begin to describe the political costs and public sentiment surrounding the continual

³⁰ Green (2011).

Unlike the passivity that many respondents displayed towards the possibility of online surveillance, they were nearly uniformly reactive against control of their Internet connection.

content filtering, monitoring and service disruptions. When asked to describe whether monitoring is an issue, the responses of participants were particularly striking, if indirect.

“...my priority is that no one should monitor me, because to me that sounds like the inquisition and I do not find it pleasant if I feel like someone, either obviously or in disguise, is monitoring my activities... It is very hard to tolerate an environment that feels like there are spies watching you. I find this emotionally hard.” (The Romantic)

Furthermore, respondents demonstrated mixed ideas about the shape or definition of online surveillance. Many of the participants assumed that the monitoring apparatus, which one participant described as an “umbrella system,” is always present in the background and is only triggered by “sensitive” issues, such as political or sexual content. It was suggested by several participants that email and activities on social networks are generally monitored. One respondent believed that government monitoring continued even when the user is not online, hacking into users’ accounts and actively watching social network activities. Furthermore, respondents differed in terms of their agreement about the necessity of filtering content, as well as their understanding of the actual agencies or organizations involved in monitoring and filtering.

That such a disagreement is present among respondents could denote confusion or a lack of confidence regarding the integrity and administration of the Internet infrastructure in the country. However, in addition to the government-affiliated organizations that we generally associate with monitoring, family, friends, CoffeeNet owners, network administrators, other users in social networks and international IT companies are possible agents of monitoring and control of the Internet in Iran. The Cyber Warrior suggested that Google, VPN providers and other IT companies share user information with Western agencies regarding Iranian Internet users. The Low Profile Blogger linked surveillance with issues of privacy on commercial platforms,

“We are all tiny pieces of the statistical set that

different services maintain and analyse. If I’m on Facebook, then I am definitely included in whatever statistics Facebook collects. I take this as a sign that all of us are being monitored.”

Unlike the passivity that many respondents displayed towards the possibility of online surveillance, they were nearly uniformly reactive against control of their Internet connection. The majority of the archetypes in this study actively circumvent filtering mechanisms through VPNs and other anti-filtering services; in addition to wanting the filtering regime to end, respondents went on to note the need for better anti-filtering tools as a way of improving Iran’s Internet. Whereas some of the participants suggest that because they themselves do not “create content” the monitoring system does not target their online activities, the filtering of popular online social media sites remains an issue even for users that do not engage in sensitive activity or are not even cognizant of the influence that intermediaries have over content that passes through a network.

These responses also highlight lessons for developers of anti-filtering tools and online platforms targeted at an Iranian audience. While significant attention has been paid to the security of several privacy and communications tools,³¹ it appears that the priority for users is the ability to access blocked content and bypass some forms of disruption, with added security measures being an auxiliary, and perhaps unknown, benefit. While one archetype mentioned that their VPN provider might be able to control or monitor their browsing in the same way as the government, only one other archetype (The Romantic) indicated concerns about the trust and security of their circumvention tool, and had heard that some VPNs are “monitored and controlled by the establishment.” While this is a common rumor, it does not seem to have impacted the existence of a robust local market for anti-filtering services. Only one archetype, a Dissident Blogger, mentioned using Tor, an anonymity network designed to mitigate issues of trust and privacy on the Internet. Another single participant response that deserves note is that of the Dissident News Reader, who mentions having rented a foreign server and set up a private tunnel using the software Proxifier, a common trend with technology-savvy Iranians that has deep security implications. When the Iranian government and telecommunications companies aggressively throttle the speed of Internet connections, the additional latency of more secure anti-filtering tools appears to be perceived as a luxury.

Perhaps surprisingly, many respondents indicated that some degree of censoring online content was legiti-

³¹ Appelbaum (2012).

mate, especially in cases where “immoral websites and whatever would constitute a danger for national interests.” Others argued that filtering was warranted when it comes to pornography and sexual content, for the protection of children and public morality, and in the case of “terrorism, racism, child pornography, Internet scams.” However, participants generally qualified this acquiescence to targeted filtering by noting that this ‘tolerable filtering’ is “not what is happening in Iran,” because the government is targeting content it perceives as threatening to its own survival and trying to stifle political debate.

Moreover, no respondent advocated for censorship on one’s own behalf or indicated that it was serving a worthwhile purpose for them personally. The most vocal advocate for online censorship, Phone 2.0, stated that removing the filtering mechanism would “cause chaos in society...it has to be maintained.” At the same time, the respondent also acknowledged regular use of several blocked websites and argued that a better Internet would include “remov[ing] the filtering regime for certain groups in the society.” Therefore, it is important to differentiate the personal frustrations of the Iranian public regarding the blocking of specific content or sites from a wholesale rejection of filtering as a component of maintaining social order or protecting public morality. Similarly, these users may not see bypassing such systems as an act that contravenes political or social structures any more than running a red light at an empty intersection.

The fact that online and offline relationships highly overlap in this sample undergirds the importance of Internet communication in the social affairs of the average Iranian user. For this reason it is not surprising that nearly all respondents suggest that a disruption of their Internet connection would have a significantly detrimental effect on their daily lives. However, as dependencies on the Internet grow beyond engaging in social and informational activities and into access to vital communications, professional and welfare services, our respondents start to describe the substantial economic, personal and political price of continued disruptions.

“I have witnessed it many times that these disruptions, which happen at certain times of need [for the establishment], would even stop users from accessing their email. This was in fact the most significant problem caused by the disruptions and it did cause many financial and other costs.” (IT Blogger)

“For me, at present, the Internet is a way to get to the things that I want but cannot gain access

Surprisingly, many respondents indicated that some degree of censoring online content was legitimate, especially in cases where “immoral websites and whatever would constitute a danger for national interests.”

to through normal channels at home or in society. Therefore, if the Internet wasn’t there for me, I would lose all of that and I don’t really know where to look for these connections, if they were lost.” (Underground 2.0)

For these individuals, access to the Internet is no longer a supplemental privilege, but a core component of their professional and private lives. When asked about impact, some respondents used strong emotional terms, such as “frustration,” “irritated,” “lost my temper,” “stress” and “depression,” to describe past social and economic costs and reactions where disruption occurred. Only in cases where participants had limited or no home access, and had not come to expect connectivity in their daily affairs, did they state that short-term disruption would not directly impact their lives. These individuals frequently commented that while paying bills, shopping and communicating were more convenient online, they would not be prevented from engaging in these activities by lack of Internet access. However, these individuals also mentioned that their stated alternatives of reading a book or watching satellite television have limits, and that long-term outages would begin to affect them.

Another side to this coin is external sanctions from Western countries as a form of filtering, and many respondents vocalized the dissatisfaction ordinary Iranian citizens feel with limitations imposed by foreign governments while also coping with the control system of the regime. Colloquially called “reverse filtering” or “damn error 404” in the Iranian context, attempts to access international services and tools are blocked based on their location. In our responses, little distinction was made between sanctions and the Iranian government’s filtering:

“Currently, because of the policies of the Iranian establishment and the externally-imposed sanctions, I am banned from accessing many websites through the normal channels. This makes me irritated and frustrated.” (Cyber Warrior)

These external sanctions create limitations on use of

certain services and plugins provided by Google, Adobe, Yahoo, Oracle and other international IT companies, imposing a broader chilling effect on the accessibility of content in Iran. Other respondents specifically define the removal of these sanctions and the ability to engage in online markets as an absolute necessity for Iranians to participate on equal footing with Internet users in other countries. This issue warrants additional emphasis because it is one of the few aspects of a better Internet that is exerted, and can be remedied, by external actors.

More broadly than issues of filtering and disruption, respondents had strong emotions against the status quo and the development of Internet services in Iran. When asked about what changes would enhance their relationship with the Internet, the responses further reflect the critical role that the Internet plays in the social and economic lives of many Iranians. It was predictable that the predominant request would be changes to the administration of the filtering regime. However, less predictable was the amount of attention paid to connection speed. The Civil Society Blogger indicated he had never even been able to watch anything other than a short video online and thus "cannot even claim that I have a proper understanding of the potentials of this network." Even the IT Blogger archetype, who reported to have two 1 Mbps connections at home (sixteen times the official allowance), stressed the importance of speed for a better Internet experience. Since this is a limitation created by government policies, allegedly in relation to the technological difficulty of filtering large amounts of traffic, it remains to be seen what role the proposal of a national information network, which promises 2 Mbps home connectivity, wider access and in-country services, will play in fulfilling popular demands for better access and less throttling.

7.1 NEXT STEPS

These results reinforce some assumptions and shed new light on previously under-examined aspects of the Iranian public's relationship with the Internet, and highlight possible future directions for similar studies. Foremost, we recommend the execution of the procedure developed in this project on a larger group of participants, through extending the sample of individuals who are interviewed for each archetype. The responses provided by these participants will produce a more representative and detailed description of the archetypes and their relationship to the Internet. Within this sample, further correlation analysis of particular archetypes can be used for investigating the properness and uniqueness of their definition. Although we find uniqueness in our current set, it may be useful to merge or split archetypes based on larger samples, additional

variables and potential revisions to questions.

Furthermore, the current study does not consider the weights of the archetypes in the population of Iranian Internet users. As we note, archetypes such as the Have-to obviously appear to be more representative than individuals such as Dissident News Reader. The descriptive information resulting from this study can only be converted to quantitatively and universally applicable data when there is consensus response amongst archetypes regarding a topic. For example, the fact that a strong majority of the participants utilize the Internet for communication purposes can statistically be understood as the Internet being a popular communication tool among significant segments of the public of Internet users in Iran. The reverse does not hold, however. For example, the fact that only one participant utilizes a dial-up connection must not be understood as the dial-up connection being an obsolete technology in Iran, because the relative weights of the different archetypes must be included in the calculation as well.

Finally, as we begin to describe in our assessment of responses, the Iranian online public is a rich environment with conflicting attitudes and a sophisticated understanding of the significant issues regarding the maintenance and development of the Internet. It was both unexpected and reasonable that we would find our respondents acknowledging concerns about the privacy policies of Western companies in the same breath as discussing monitoring by domestic security services. Similarly, we found clear contradictions within respondents' behaviors and opinions, especially regarding attitudes toward the legitimacy of monitoring or controlling access to content and activities online. While several respondents stated that filtering served a public good, preventing the broader corruption of public morality or the deterioration of the social order, no one indicated that it was in their own personal best interest. These specific points of contention and complexity should serve as opportunities in future research to further differentiate archetypes and clarify the motivations of Iranian users. Moreover, such incongruities demonstrate a need for wider study of the under-examined trends of the political socialization and public legitimacy of monitoring and control in countries where content restrictions are imposed.

In elaborating the attitudes, hopes and liabilities of those directly affected by such issues, we begin to understand the importance of the Internet in Iran, the domestic politics surrounding its maintenance, its future in the economic and social development of the country and the opportunities that exist for those outside to help protect its place as a surrogate public sphere that is increasingly strangled offline.

[8. Archetype Heatmap]

We can begin to assess the validity of our methodology by evaluating the extent of the diversity of participant responses and whether we were able to outline a discrete population of archetypes that differed from each other. The correlation heat map for our response set demonstrates the commonalities of archetypes based on where they offered similarly coded answers. In practice, a completely dissimilar pair would have a correlation of zero, responding differently on all questions; conversely, any pair can have a maximum correlation of eight, sharing the same opinion on all matters. It is significant from a theoretical and archetypal integrity perspective that almost all possible pairs of archetypes exhibit a difference in their responses on at least four questions. The only exception to this is the pair of IT Blogger and The Romantic, who are only different in the amount of time they spend online and their approach to control on the web. Nevertheless, within their full responses, these two archetypes exhibit a clearly different objective in their relationship with the Internet.

	Highschool Student	University Student	Have-to	Phone 2.0	Underground 2.0	Activist	Cyber Warrior	Civil Society Blogger	Low-Profile Blogger	IT Blogger	Famous Blogger	Dissident Blogger	News Reader	Dissident News Reader	Web 2.0	Fun.html	Television 2.0	The Romantic
High School Student	8	0	0	1	2	1	3	1	3	2	3	1	1	2	1	2	0	2
University Student	0	8	2	2	2	3	2	3	2	1	1	2	2	3	3	2	4	2
Have-to	0	2	8	2	0	0	0	1	1	1	0	0	0	1	1	1	2	0
Phone 2.0	1	2	2	8	0	1	0	1	0	0	1	1	0	1	1	2	2	0
Underground 2.0	2	2	0	0	8	4	3	3	2	4	2	4	4	3	2	2	2	5
Activist	1	3	0	1	4	8	4	3	3	4	2	4	4	3	2	2	2	5
Cyber Warrior	3	2	0	0	3	4	8	4	3	2	3	3	4	4	4	2	3	3
Civil Society Blogger	1	3	1	1	3	3	4	8	2	2	3	4	3	5	3	3	4	3
Low-Profile Blogger	3	2	1	0	2	3	3	2	8	3	2	2	2	3	2	1	1	2
IT Blogger	2	1	1	0	4	4	2	2	3	8	1	3	3	2	1	1	1	6
Famous Blogger	3	1	0	1	2	2	3	3	2	1	8	4	2	2	3	4	3	2
Dissident Blogger	1	2	0	1	4	4	3	4	2	3	4	8	4	3	3	3	4	4
News Reader	1	2	0	0	4	4	4	3	2	3	2	4	8	5	2	3	2	4
Dissident News Reader	2	3	1	1	3	3	4	5	3	2	2	3	5	8	2	3	3	3
Web 2.0	1	3	1	1	2	2	4	3	2	1	3	3	2	2	8	2	4	2
Fun.html	2	2	1	2	2	2	2	3	1	1	4	3	3	3	2	8	3	2
Television 2.0	0	4	2	2	2	2	3	4	1	1	3	4	2	3	4	3	8	2
The Romantic	2	2	0	0	5	5	3	3	2	6	2	4	4	3	2	2	2	8

[References]

- Alexa (n.d). Top Sites in Iran. Available online: <http://www.alexa.com/topsites/countries/IR> (accessed January 2013).
- Amnesty International (2012). "We Are Ordered to Crush You": *Expanding Repression of Dissidents in Iran*. London, UK: Amnesty International. Available online: <https://doc.es.amnesty.org/cgi-bin/ai/BRSCGI/mde130022012en?CMD=VEROBJ&MLKOB=31701603030> (accessed January 2013).
- Appelbaum, J. (2012). Technical Analysis of the Ultrasurf Proxying Software. Available online: <https://media.torproject.org/misc/2012-04-16-ultrasurf-analysis.pdf> (accessed January 2013).
- Broadcasting Board of Governors & Gallup (2012). *BBG Research Series: Iran Media Use 2012*. Available online: <http://www.bbg.gov/wp-content/media/2012/06/BBG-Iran-ppt.pdf> (accessed January 2013).
- Chimigi (2012). Iran Web 2.0. Available online: <http://tfour.me/2012/11/over-half-of-internet-users-in-iran-use-facebook/> (accessed January 2013).
- Elson, S. B., Yeung, D., Roshan, P., Bohandy, S. R. & A. Nader (2012). *Using Social Media to Gauge Iranian Public Opinion and Mood after the 2009 Election*. Santa Monica, CA: RAND Corporation. Available online: http://www.rand.org/content/dam/rand/pubs/technical_reports/2012/RAND_TR1161.pdf (accessed January 2013).
- Gerdab (2012). "68% of People will Participate in Election." Available online (in Persian): <http://goo.gl/WRn0R> (accessed January 2013).
- Green, A. (2011). Announcement of change on the Google+ profile of Google employee Alan Green, October 20. Available online: <https://plus.google.com/113760695441101959932/posts/Yxj9MquTddH> (accessed January 2013).
- Hounshell, B. (2011). "The Revolution Will Be Tweeted," *Foreign Policy*, July/August. Available online: http://www.foreignpolicy.com/articles/2011/06/20/the_revolution_will_be_tweeted (accessed April 2012).
- International Campaign for Human Rights in Iran (2011). Official Distortion & Disinformation: A Guide to Iran's Human Rights Crisis. Available online: <http://www.iranhumanrights.org/2011/02/distortion-disinformation/> (accessed December 2012).
- Johari, A. (2002). Internet Use in Iran: Access, Social, and Educational issues. *Educational Technology Research and Development*, 50(1): 81-84.
- Kelly, J. & B. Etling (2008). *Mapping Iran's Online Public: Politics and Culture in the Persian Blogosphere*. Berkman Center Research Publication No. 2008-01. Cambridge, MA: Berkman Center for Internet & Society at Harvard University. Available online: http://cyber.law.harvard.edu/publications/2008/Mapping_Irans_Online_Public (accessed April 2012).
- Majles of Iran (2010). Fifth Five Year Development Plan of the Islamic Republic of Iran (2010-2015).
- Morozov, E. (2011). *The Net Delusion: The Dark Side of Internet Freedom*. New York: PublicAffairs.
- OpenNet Initiative (2009). *Internet Filtering in Iran*. Available online: <http://opennet.net/research/profiles/iran> (accessed April 2012).
- Pruitt, J. & T. Adlin (2006). *The Persona Lifecycle: Keeping People in Mind Throughout Product Design*. San Francisco, CA: Morgan Kaufmann Publishers.
- Reporters without Borders (2012). *The Enemies of the Internet*. Available online: <http://march12.rsf.org/en/#ccenemies> (accessed January 2013).
- Rhoads, C. & F. Fassihi (2011). Iran Vows to Unplug Internet. *Wall Street Journal*, 19 December. Available online: <http://online.wsj.com/article/SB10001424052748704889404576277391449002016.html> (accessed January 2013).
- Rigby, A. (September 2007). *Looking for Freedom: An Exploration of the Iranian Blogosphere*. A study submitted in partial fulfilment of the requirements for the degree of Master of Arts in Librarianship at The University of Sheffield. Available online: <http://www.lexrigby.com/pdf/AlexisRigby-Lookingfor-Freedom.pdf> (accessed April 2012).
- Statistical Center of Iran (2012). Statistical Results of the Internet Census in Iran - 2011 (in Persian). Available online: http://www.amar.org.ir/Portals/0/Files/abstract/1389/n_IT_89.pdf (accessed April 2012).
- Wojcieszak, M., Smith, B. & M. Enayat (2012). Finding a Way: How Iranians Reach for News and Information. The Iran Media Program's 2011-2012 Report on Media Consumption in Iran. Philadelphia, PA: Annenberg School for Communication, University of Pennsylvania. Available online: <http://www.global.asc.upenn.edu/fileLibrary/PDFs/FindingaWay.pdf> (accessed January 2013).
- Zuckerman, E. (2011, January 14). "The First Twitter Revolution?" *Foreign Policy*. Available online: http://www.foreignpolicy.com/articles/2011/01/14/the_first_twitter_revolution (accessed April 2012).