Update on information controls in Ethiopia

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Introduction

Ethiopia remains a highly restrictive environment in which to express political dissent online. The government of Ethiopia has long filtered critical and oppositional political content. Antiterrorism legislation is frequently used to target online speech, including in the recent conviction of a dozen individuals, many of whom were tried based on their online writings. OpenNet Initiative (ONI) testing conducted in Ethiopia in September 2012 found that online political and news content continues to be blocked, including the blogs and websites of a number of recently convicted individuals. This blog post summarizes recent developments in Ethiopia and reports on the results of ONI testing in the country.

Recent developments in Ethiopia

Recent developments in Ethiopia underscore the dangerous environment in the country for critical political voices. Broad application of the country's 2009 anti-terrorism proclamation has served as the basis for a number of recent convictions. In recent months, bloggers and journalists have been convicted on terrorism charges based on their online and offline writings. Most notably, in July 2012 blogger Eskinder Nega was jailed for 18 years on charges of attempting to incite violence through his blog posts. This incident was the seventh arrest of Nega for his critical writings. Nega was accused of conspiring with Ginbot 7, an oppositional political group labeled a terrorist organization by the Ethiopian government. Also convicted in absentia were Abebe Gellaw of the online news platform Addis Voice, as well as Mesfin Negash and Abiye Teklemariam, editors of the news website Addis Neger Online. A number of other journalists and opposition political figures were also simultaneously convicted of similar offenses. In January 2012, Elias Kifle, editor of Ethiopian Review, was convicted in absentia under the same anti-terrorism laws.

The government of Ethiopia has also sought to make legislative changes that would affect the use of online communication tools. Legislation has been introduced that would restrict the use of Voice-over-Internet Protocol (VoIP) applications such as Skype. While government representatives portrayed the proposed law as a means of protecting domestic telecommunications providers, some critics described the new draft legislation as an attempt to criminalize the use of VoIP services to punish dissent. Additional restrictions exist on private actors delivering telecommunications services to third parties more generally. Moreover, a number of unconfirmed reports suggest that users of Internet cafes in Addis Ababa have been confronted or arrested by security officials after using the cafes to visit sensitive political websites.

Other reports from the country describe attempts by Internet Service Providers (ISPs) to restrict the use of tools to anonymize web browsing and circumvent Internet filtering. In May 2012, developers of the Internet anonymizer software project Tor reported that the Ethiopian Telecommunications Corporation (ETC) had begun using Deep Packet Inspection (DPI) to block access to the Tor service. This finding followed reports from July 2011 of an ETC-issued tender for the procurement of DPI technology. In December 2010 the ETC, renamed as Ethio Telecom, signed a 30 million Euro contract with France Telecom, outsourcing management of Ethio Telecom for two years.

Past ONI testing in Ethiopia

The ONI conducts technical testing of Internet filtering through the use of specially designed software distributed to researchers located in the country of interest. ¹⁵ ONI has previously conducted two phases of technical testing in Ethiopia, in 2006/2007 and in 2008/2009. Both phases of testing found extensive filtering of political content.

- Testing conducted in 2006 and 2007 on the ISP ETC found that a broad variety of political and news-related websites were blocked, including opposition political sites, critical political blogs, independent Ethiopian media, human rights sites, and sites with content related to ethnic minorities. The entire domain of several blogging platforms, including the international Blogspot and the Ethiopia-focused Nazret, were found to be blocked. However, international news sites such as CNN and Voice of America, as well as prominent critical blogs Addis Voice and Ethiopian Review, were found to be accessible.
- Testing conducted in 2008 and 2009 on ETC found a similar variety of content to be blocked. ¹⁷ A number of independent Ethiopian news sites, including Ethiopia Exchange (http://ethiox.com), were found to be blocked, while international news sites such as CNN and Voice of America remained accessible. While the use of VoIP services among the general public was restricted, the website of Skype (www.skype.com) remained accessible.

2012 ONI testing results

ONI conducted testing of filtering in Ethiopia on the ISP Ethio Telecom (formerly ETC) from September 17 to 19, 2012. In total, 1375 unique URLs were tested, with 73 of those URLs found to be blocked. (Lists of URLs tested, as well as URLs found blocked, can be found in the 'Data' section at the end of this report.) Blocked content was found to be blocked through the use of forged TCP RST (reset) packets, a method that is not transparent to users. RST packets are typically sent by clients or servers when there are network problems, as a response to a half-open connection, or some other network anomaly. When a RST flag is received most networking implementations in an operating system will shut down the socket used. The result of a forged TCP RST packets from a user's perspective, is that any attempts to access blocked content would display a typical browser error message indicating the site was unreachable rather than an explicit block page. However, analysis of packet captures conducted during testing demonstrates that attempts to access this content are disrupted through the use of forged TCP RST packets directly in response to an HTTP GET request, as shown in Figure 1 (click image to enlarge):

Figure 1: Sample packet capture of an attempt to access http://www.addisvoice.com.

	- 4	0.005109	66.147.244.132	192.168.2.20	TCP	http > 61701 [RST, ACK, NS] Seq=1 Ack=144 Win=4160 Len=0
	3	0.000356	192.168.2.20	66.147.244.132	HTTP	GET / HTTP/1.1
	2	0.000095	192.168.2.20	66.147.244.132	TCP	61701 > http [ACK] Seq=0 Ack=1 Win=4160 Len=0
	1	0.000000	66.147.244.132	192.168.2.20	TCP	http > 61701 [SYN, ACK] Seq=0 Ack=0 Win=5840 Len=0 MSS=1
N	0.	Time	Source	Destination	Protocol	Info

With some exceptions, the majority of URLs found to be blocked contained content directly related to Ethiopia. Most URLs found blocked belonged to ONI's 'political' category, 19 including independent media and critical political blogs. The blocked content includes online portals such as Nazret (http://nazret.com) and Cyber Ethiopia (http://cyberethiopia.com), diaspora media such as Toronto-based TZTA Ethiopia Newspaper (http://www.tzta.ca), and other critical political organizations, including the website of the Solidarity Committee for Ethiopian Political Prisoners (http://www.socepp.de/). The website of Oromo independence organization Oromo Liberation Front (http://www.oromoliberationfront.org) was found to be blocked. Also found blocked were the websites of a number of anonymization and circumvention tools, such as the Tor Project (https://www.torproject.org), Ultrasurf (http://ultrasurf.us), and Psiphon (http://psiphon.ca). Only two international news sites were found to be blocked, Al Jazeera (http://www.aljazeera.net) and Al Arabiya (http://www.alarabiya.net).

A number of sites associated with recently imprisoned bloggers were also found to be blocked. EthioMedia (http://ethiomedia.com), a news site contributed to by imprisoned blogger Eskinder Nega, was found blocked. Addis Voice (http://www.addisvoice.com), founded by recently sentenced Abebe Gellaw, was blocked, as was Ethiopian Review (http://www.ethiopianreview.net), whose editor Elias Kifle was convicted in absentia for violating the country's anti-terrorism laws. 20 Addis Neger Online (http://addisnegeronline.com/), http://addisnegeronline.com/), http://addisnegeronline.com/), http://www.ginbot7.org). Although the website of prominent independent weekly newspaper The Reporter (http://www.ethiopianreporter.com) was reported blocked in April 2012, 22 ONI testing found this website to be accessible.

Conclusion

Through a combination of legal action taken against individuals for their online writings, technical filtering of Internet content, and low Internet penetration rates²³, Ethiopia remains a highly challenging space in which to express political dissent online. Technical testing conducted by ONI confirms that critical political content is filtered through non-transparent means. ONI will continue to monitor information controls and threats to freedom of expression in Ethiopia.

Acknowledgements

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Data

The complete list of blocked URLs, as well as the lists of URLs tested, can be found in the following:

Complete list of blocked sites on Ethio Telecom

- [CSV] [Google Doc]
- Testing conducted from September 17 to 19, 2012
- Category codes can be found in Google Doc version

List of URLs tested on Ethio Telecom

- Local List [CSV] [Google Doc]
- Global List [CSV] [Google Doc]
- Lists used in testing conducted from September 17 to 19, 2012
- Category codes can be found in Google Doc version

<u>Important note about testing data:</u> The absence of a particular URL from the list of blocked URLs is not necessarily an indication that the content is accessible in Ethiopia. In some circumstances, issues encountered during data collection prevent confirmation of the status of a given URL.

Footnotes

¹ Human Rights Watch, "Ethiopia: Terrorism law used to crush free speech," June 27, 2012, http://www.hrw.org/news/2012/06/27/ethiopia-terrorism-law-used-crush-fre... ² Maasho, Aaron, "Ethiopia jails blogger, reporters, opposition figures," July 13, 2012, http://www.reuters.com/article/2012/07/13/us-ethiopia-media-trial-idUSBR... ³ PEN American Center, "Top PEN prize to honor Eskinder Nega, jailed Ethiopian journalist and blogger," April 12, 2012, http://www.pen.org/viewmedia.php/prmMID/6494/prmID/172 ⁴ Hunter-Gault, Charlayne, "The dangerous case of Eskinder Nega," July 17, 2012, The New Yorker, http://www.newyorker.com/online/blogs/newsdesk/2012/07/the-dangerous-cas... ⁵ Committee to Protect Journalists, "Ethiopia sentences Eskinder, 5 others on terror charges," July 13, 2012, http://cpj.org/2012/07/ethiopia-sentences-eskinder-six-others-on-terror-... ⁶ Emily Alpert, "Famed Ethiopian journalist, dissidents convicted of terrorism," June 27, 2012, Los Angeles Times, http://latimesblogs.latimes.com/world_now/2012/06/ethiopian-journalist-d... ⁷ Human Rights Watch, "Ethiopia: Terrorism verdict quashes free speech," January 19, 2012, http://www.hrw.org/news/2012/01/19/ethiopia-terrorism-verdict-quashes-fr... ⁸ Sudan Tribune, "Ethiopia: Govt denies banning Skype and other Internet communication services," June 24, 2012, http://allafrica.com/stories/201206250202.html ⁹ Al Jazeera, "Ethiopia: Skype me maybe," June 14, 2012, http://stream.aljazeera.com/story/ethiopia-skype-me-maybe-0022243 ¹⁰ Freedom House, "Ethiopia," 2012, http://www.freedomhouse.org/report/freedomnet/2012/ethiopia

Addis Neger Online, "Crackdown in Addis Ababa Internet cafes, two arrested on Tuesday," August 2011, http://addisnegeronline.com/2011/08/crackdown-in-addis-ababa-internet-ca...
Tor, "Ethiopia introduces deep packet inspection," May 31, 2012,

https://blog.torproject.org/blog/ethiopia-introduces-deep-packet-inspection

¹³ Broadband Traffic Management, "Ethio Telecom issued a tender for DPI," July 7, 2011, http://broabandtrafficmanagement.blogspot.ca/2011/07/ethio-telecom-issue...

- ¹⁴ Aaron Maasho, "Ethiopia outsources telecom management to France Telecom," December 3, 2010, http://af.reuters.com/article/investingNews/idAFJOE6B207720101203
- ¹⁵ For more information on ONI's testing methodology, see http://opennet.net/oni-faq
- ¹⁶ OpenNet Initiative, "Internet filtering in Ethiopia in 2006-2007," http://opennet.net/studies/Ethiopia2007

¹⁷ OpenNet Initiative, "Ethiopia," September 30, 2009,

http://opennet.net/research/profiles/ethiopia

- ¹⁸ Information Sciences Institute, "Transmission Control Protocol" http://www.ietf.org/rfc/rfc793.txt
- ¹⁹ Content categorized as "political" focuses primarily on websites that present views in opposition to those of the current government. Content more broadly related to human rights, freedom of expression, minority rights, and religious movements is also included in this category.
- ²⁰ Human Rights Watch, "Ethiopia: Terrorism verdict quashes free speech," January 19, 2012, http://www.hrw.org/news/2012/01/19/ethiopia-terrorism-verdict-quashes-fr...
- ²¹ At the time of publication, this website was flagged by Google Safe Search as distributing malware.
- ²² Reporters Without Borders, "Leading weekly's website blocked for past six days," April 26, 2012, http://en.rsf.org/ethiopia-leading-weekly-s-website-blocked-26-04-2012,4...
- ²³ OpenNet Initiative, "Ethiopia," September 30, 2009, http://opennet.net/research/profiles/ethiopia