

## Introduction to the Country Profiles

The country profiles that follow offer a synopsis of the findings and conclusions of OpenNet Initiative (ONI) research into the factors influencing specific countries' decisions to filter or abstain from filtering the Internet, as well as the impact, relevance, and efficacy of technical filtering in a broader context of Internet censorship.

These profiles cover a selection of countries in Asia where the ONI conducted technical testing and analysis from 2009 to 2010. Countries selected for in-depth analysis are those in which it is believed there is the most to learn about the extent and processes of Internet filtering.

The ONI employs a unique “fusion” methodology that combines fieldwork, technical research, and data mining, fusion, analysis, and visualization. Our aim is to uncover evidence of Internet content filtering in countries under investigation. The ONI's tests consist of running special software programs within countries under investigation that connect back to databases that contain lists of thousands of URLs, IPs, and keywords. The lists are broken down into two categories: Global lists include URLs, IPs, and keywords that are tested in every country and that help us make general comparisons of accessibility across countries. Global lists also provide a “snapshot” of accessibility to content typically blocked by filtering software programs, and they can help us understand whether particular software programs are being used in a specific context. Local lists are unique for each country and are usually made up of content in local languages. These are high-impact URLs, IPs, and keywords, meaning they have content that is likely to be targeted for filtering or that has been reported to have been so targeted.

Our aim is to run tests on each of the main Internet service providers (ISPs) in a country over an extended period of time—typically at least two weeks on at least two occasions. Our accessibility depends very much on our in-country testers, and for security and other reasons we are not always able to perform comprehensive tests, meaning in some cases we have only partial results on which to base inferences. Our specially designed software checks access both within the country and from one or more control locations simultaneously. Anomalies are analyzed, and determinations

are made as to whether a site is accessible or not, and if the latter, how the inaccessibility occurs. In some instances, block pages—Web sites that explicitly confirm blocking—appear following requests for banned content. In other instances, connections are simply broken. In some cases, special filtering software is employed, while in others routers are manually configured to block.

Each country profile includes the summary results of the empirical testing for filtering. The technical filtering data alone, however, do not amount to a complete picture of Internet censorship and content regulation. A wide range of policies relating to media, speech, and expression also act to restrict expression on the Internet and formation of online communities. Legal and regulatory frameworks, including Internet law, the state of Internet access and infrastructure, the level of economic development, and the quality of governance institutions are central to determining which countries resort to filtering and how they choose to implement Internet content controls. A brief synopsis of each of these factors is included in each of the country summaries. Together, these sections are intended to offer a concise, accurate, and unbiased overview of Internet filtering and content regulation.

Each country is given a score on a five-point scale presented in the “Results at a Glance” table. The scores reflect the observed level of filtering in each of four themes:

1. *Political*: This category is focused primarily on Web sites that express 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 considered here.
2. *Social*: This group covers material related to sexuality, gambling, and illegal drugs and alcohol, as well as other topics that may be socially sensitive or perceived as offensive.
3. *Conflict and security*: Content related to armed conflicts, border disputes, separatist movements, and militant groups is included in this category.
4. *Internet tools*: Web sites that provide e-mail, Internet hosting, search, translation, Voice over Internet Protocol (VoIP) telephone service, and circumvention methods are grouped in this category.

The relative magnitude of filtering for each of the four themes is defined as follows:

1. *Pervasive filtering* is characterized by both its depth—a blocking regime that blocks a large portion of the targeted content in a given category—and its breadth—a blocking regime that includes filtering in several categories in a given theme.
2. *Substantial filtering* has either depth or breadth: either a number of categories are subject to a medium level of filtering, or a low level of filtering is carried out across many categories.
3. *Selective filtering* is narrowly targeted filtering that blocks a small number of specific sites across a few categories or filtering that targets a single category or issue.

4. *Suspected filtering* is indicated when connectivity abnormalities are present that suggest the presence of filtering, although diagnostic work was unable to confirm conclusively that inaccessibility of Web sites was the result of deliberate tampering.

5. *No evidence of filtering*: ONI testing did not uncover any evidence of Web sites being blocked.

The “Results at a Glance” table also includes a measure (low, medium, or high) of the observed transparency and consistency of blocking patterns. The transparency score given to each country is a qualitative measure based on the level at which the country openly engages in filtering. In cases where filtering takes place without open acknowledgment or where the practice of filtering is actively disguised to appear as network errors, the transparency score is low. In assigning the transparency score, we have also considered the presence of provisions to appeal or report instances of inappropriate blocking. Consistency measures the variation in filtering within a country across different ISPs—in some cases the availability of specific Web pages differs significantly depending on the ISP one uses to connect to the Internet.

An aggregate view of the level of development for each country is represented by the results of the first four indexes presented in the “Key Indicators” table: gross domestic product per capita, life expectancy, literacy rates, and the human development index.

The first three measures are drawn from the World Bank development indicators data set. The GDP measure, which captures the ability to purchase a standard basket of consumer goods, is expressed in constant 2005 international dollars. Life expectancy can be seen as a proxy for general health, and literacy an imperfect but reasonable indication of the quality of education. The human development index is constructed by the United Nations Development Program to reflect overall human well-being.

Governance is widely recognized to be a key determinant of economic success and human welfare. We therefore also include two measures of governance: rule of law and voice and accountability. These indexes are defined and compiled by researchers at the World Bank using an aggregation of the best available data. The authors of the indexes define them in the following way:

*Rule of Law (RL)* captures perceptions of the extent to which agents have confidence in and abide by the rules of society, in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence.

*Voice and Accountability (VA)* captures perceptions of the extent to which a country’s citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media.<sup>1</sup>

An aggregate view of the state of democracy is provided by the Economist Intelligence Unit’s democracy index. This index is based on five categories: electoral process

and pluralism, civil liberties, the functioning of government, political participation, and political culture. The 167 states included in this index are placed within one of four regime type categories: full democracies, flawed democracies, hybrid regimes, and authoritarian regimes.

We also include two measures of Internet accessibility provided by the International Telecommunication Union: the digital opportunity index (DOI) and Internet users as a percentage of the population. The DOI is based on 11 core information communications technology (ICT) indicators that are agreed upon by the International Telecommunication Union's Partnership on Measuring ICT for Development. These are grouped in three clusters by type: opportunity, infrastructure, and utilization. The DOI therefore captures the overall potential for and context of Internet availability rather than usage alone. The measure of Internet access, the Internet penetration rate, is simply the percentage of the population identified as active Internet users. Internet regulation and filtering practices are often dynamic processes, subject to frequent change, though we expect that the political climate and the aggregate view of the issues reflected in these summaries will change more slowly than the specific instances of filtering. As the context for content regulation and the practice of Internet filtering evolve, updates will be made to the country summaries, and new countries may be added. These updates will be available at <http://www.opennet.net>.

#### Note

1. Daniel Kaufmann, Aart Kraay, and Massimo Mastruzzi, "The Worldwide Governance Indicators: Methodology and Analytical Issues," World Bank Development Research Group Macroeconomics and Growth Team, September 2010. Available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1682130](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1682130).

#### Sources for Key Indicators

##### GDP per Capita, PPP (constant 2005 international dollars)

World Bank, "GDP per Capita, PPP (Constant 2005 International \$)," 2009, drawn from *The World Bank Data: Indicators* database, <http://data.worldbank.org/indicator/NY.GDP.PCAP.PP.KD>.

##### Life Expectancy at Birth (years)

World Bank, "Life Expectancy at Birth, Total (Years)," 2008a, drawn from *The World Bank Data: Indicators* database, <http://data.worldbank.org/indicator/SP.DYN.LE00.IN>.

### Literacy Rate

World Bank, "Literacy Rate, Adult Total (% of People Ages 15 and Above)," 2008b, drawn from *The World Bank Data: Indicators* database, <http://data.worldbank.org/indicator/SE.ADT.LITR.ZS>.

United Nations Development Program (UNDP), *Human Development Report 2009: Overcoming Barriers: Human Mobility and Development*, 2009, [http://hdr.undp.org/en/media/HDR\\_2009\\_EN\\_Complete.pdf](http://hdr.undp.org/en/media/HDR_2009_EN_Complete.pdf).

### Human Development Index (ranking of 169)

United Nations Development Program (UNDP), *The Real Wealth of Nations: Pathways to Human Development*, 2010, <http://hdr.undp.org/en/reports/global/hdr2010/>.

### Rule of Law (five-point scale)

World Bank, *Worldwide Governance Indicators 1996–2009*, 2009 (Washington, DC: World Bank), <http://info.worldbank.org/governance/wgi/pdf/wgidataset.xls>.

### Voice and Accountability (five-point scale)

World Bank, *Worldwide Governance Indicators 1996–2009*, 2009 (Washington, DC: World Bank), <http://info.worldbank.org/governance/wgi/pdf/wgidataset.xls>.

### Democracy Index (ranking of 167)

Economist Intelligence Unit, *Democracy Index 2010: Democracy in Retreat*, 2010, [http://graphics.eiu.com/PDF/Democracy\\_Index\\_2010\\_web.pdf](http://graphics.eiu.com/PDF/Democracy_Index_2010_web.pdf).

### Digital Opportunity Index (ranking of 181)

International Telecommunication Union (ITU), *World Information Society 2007 Report: Beyond WSIS*, 2007, <http://www.itu.int/osg/spu/publications/worldinformationsociety/2007/report.html>.

### Internet Penetration

International Telecommunication Union (ITU), "Internet Indicators: Subscribers, Users and Broadband Subscribers," 2009 figures, <http://www.itu.int/ITU-D/icteye/Indicators/Indicators.aspx>.



This is a section of [doi:10.7551/mitpress/9780262016780.001.0001](https://doi.org/10.7551/mitpress/9780262016780.001.0001)

# Access Contested

## Security, Identity, and Resistance in Asian Cyberspace

**Edited by:** Ronald Deibert, John Palfrey, Rafal Rohozinski,  
Jonathan L. Zittrain

### Citation:

*Access Contested: Security, Identity, and Resistance in Asian Cyberspace*

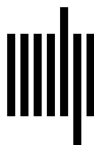
**Edited by:** Ronald Deibert, John Palfrey, Rafal Rohozinski, Jonathan L. Zittrain

**DOI:** 10.7551/mitpress/9780262016780.001.0001

**ISBN (electronic):** 9780262298919

**Publisher:** The MIT Press

**Published:** 2011



**The MIT Press**

© 2012 The President and Fellows of Harvard College

All rights reserved. No part of this book may be reproduced in any form by any electronic or mechanical means (including photocopying, recording, or information storage and retrieval) without permission in writing from the publisher.

MIT Press books may be purchased at special quantity discounts for business or sales promotional use. For information, please email [special\\_sales@mitpress.mit.edu](mailto:special_sales@mitpress.mit.edu) or write to Special Sales Department, The MIT Press, 55 Hayward Street, Cambridge, MA 02142.

The online edition of this work is available from IDRC and at <http://www.access-contested.net>.

International Development Research Centre  
PO Box 8500, Ottawa, ON K1G 3H9, Canada  
[info@idrc.ca](mailto:info@idrc.ca) / [www.idrc.ca](http://www.idrc.ca) <<http://www.idrc.ca>>  
ISBN 978-1-55250-507-6 (IDRC e-book)

This book was set in Stone Sans and Stone Serif by Toppan Best-set Premedia Limited. Printed and bound in the United States of America.

Library of Congress Cataloging-in-Publication Data

Access contested : security, identity, and resistance in Asian cyberspace / edited by Ronald Deibert . . . [et al.].

p. cm. — (Information revolution and global politics)

Includes bibliographical references and index.

ISBN 978-0-262-01678-0 (hardcover : alk. paper) — ISBN 978-0-262-51680-8 (pbk. : alk. paper)

1. Cyberspace—Government policy—Asia. 2. Computer security—Asia. 3. Computers—Access control—Asia. 4. Internet—Government policy—Asia. 5. Internet—Censorship—Asia. I. Deibert, Ronald.

HM851.A253 2011

303.48'33095—dc23

2011031273

10 9 8 7 6 5 4 3 2 1