

# Exhibit AA

# COLLECTION DEVELOPMENT POLICY

EXH. 45 DATE 10-17-07  
WITNESSED BY *Charles H. Reed*  
CHARLES H. REED

ADOPTED 01/04

## North Central Regional Library - Collection Development Policy

The North Central Regional Library District's Board of Trustees recognizes that the library was created to serve all of the people within the District's service area, regardless of race, age, creed, or political persuasions. The Board of Trustees further recognizes that within the District's service area there are individuals and groups with widely disparate and diverse interests, cultural backgrounds, and needs. The Board of Trustees, therefore, declares as a matter of policy that:

1. The Collection Development Policy is based on and reflects the District's mission, goals, and values as stated in the current Strategic Plan.
2. Library materials shall be selected and retained in the library on the basis of their value for the interest, information, and enlightenment of all the people of the community in conformance with the District's mission.

Some of the factors which will be considered in adding to or removing materials from the library collection shall include: present collection composition, collection development objectives, interest, demand, timeliness, audience, significance of subject, diversity of viewpoint, effective expression, and limitation of budget and facilities.

No library materials shall be excluded because of the race, nationality, political, religious, or social views of the author. Not all materials will be suitable for all members of the community.

The District shall be responsive to public suggestion of titles and subjects to be included in the library collection. Gifts of materials may be accepted with the understanding that the same standards of selection are applied to gifts as to materials acquired by purchase, and that any gifts may be discarded at the District's discretion.

To ensure a vital collection of continuing value to the community, materials that are not well used may be

withdrawn.

The Director is responsible to the Board of Trustees for collection development. The Director may delegate collection development activities to members of the staff who are qualified by reason of education and training.

3. The Board of Trustees believes that reading, listening to, and viewing library materials are individual, private matters. While individuals are free to select or to reject materials for themselves, they cannot restrict the freedom of others to read, view, or inquire. The Board of Trustees recognizes that parents have the primary responsibility to guide and direct the reading and viewing of their own minor children.
4. The Board of Trustees recognizes the right of individuals to question materials in the District collection. A library customer questioning material in the collection is encouraged to talk with designated members of the staff concerning such material. To formally state his or her opinion and receive a written response, a customer may submit the form provided for that purpose.

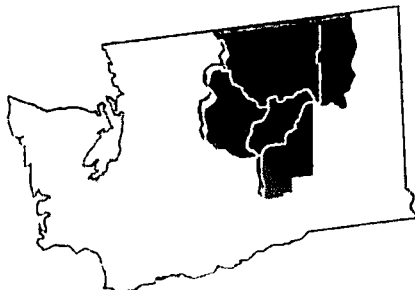
1/04

# **Exhibit BB**

## NCRL OVERVIEW

NCRL is an intercounty rural library district and municipal corporation formed in 1960. With the exception of several small communities, NCRL provides public library services to 220,741 persons (Census 2000) in all incorporated and unincorporated areas of Chelan, Douglas, Ferry, Grant, and Okanogan Counties. Of the total number of persons within the library district, 47,633 or 21.6% identified themselves as Hispanic or Latino in Census 2000. This 14,947 square-mile service district is only slightly smaller than the combined area of Massachusetts (10,555 square miles) and Connecticut (5,543 square miles) and comprises 25% of Washington State's land surface area.

Communities served by NCRL include Brewster, Bridgeport, Cashmere, Chelan, Coulee City, East Wenatchee, Entiat, Ephrata, Grand Coulee, Leavenworth, Manson, Mattawa, Moses Lake, Okanogan, Omak, Oroville, Pateros, Peshastin, Quincy, Republic, Royal City, Soap Lake, Tonasket, Twisp, Warden, Waterville, Wenatchee, and Winthrop.



NCRL provides service to its many rural patrons through its popular, unique, and innovative Mail Order Library. This is our nation's first mail order library operation and has become one of the few remaining. Descriptive catalogs are designed in house for home use and are distributed three times per year on all rural postal routes, to branch libraries, and to interested city residents. Books, audiobooks, and

NCRL offers a variety of specialized information sources via its website free of charge:

- Live homework help in Spanish and English from Tutor.com
- Language learning software from Rosetta Stone
- Downloadable audiobooks from Overdrive
- Genealogical and census information from HeritageQuest Online
- Full text magazines and newspapers from ProQuest, EBSCO, E-Library, E-Library Elementary, and the Student Research Center
- Information for students from the Biography Resource Center, Literature Resource Center, MagillOn Literature, and the Testing and Educational Center

DVDs are mailed directly to the user's home with return postage provided.

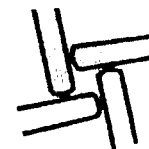
NCRL offers extensive programming directed to children and their caregivers. Storytime programs are provided at all 28 branch libraries. An ambitious Summer Reading Program, classroom visits, book clubs for kids, and special events such as author presentations are all part of the systemwide children's program.

NCRL provides outreach services outside of community libraries to Head Start programs, nursing homes, senior retirement centers, youth detention facilities, and jails throughout the library's service area. Services include deposit collections, story times, and read-aloud programs. We provide personalized support to the many book clubs active in our five counties. As of July 2007, 223 book clubs are active in the library district.

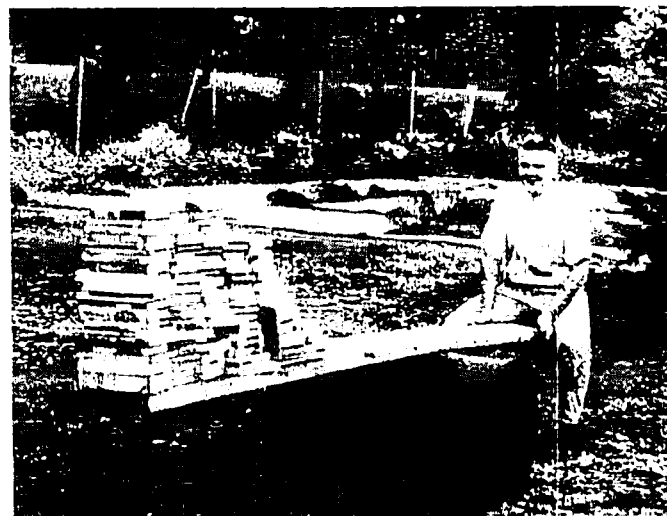
Management and control of NCRL is vested in a regional board composed of two trustees from each of the more populated counties (Chelan and Grant) and one trustee each from the remaining three counties. NCRL is supported almost exclusively by rural property taxes.

Access to the library's collection of over a half a million books and other materials is available through 28 community libraries and NCRL's web site: [www.ncrl.org](http://www.ncrl.org). Collections include materials in English, Spanish, and Russian languages. Membership in OCLC, a global library cooperative, enables NCRL to link library users to the collections of libraries all over the world through interlibrary loan.

Wireless Internet access is provided at all North Central Regional Library branches.



## North Central Regional Library and the Balanced Scorecard



### MISSION AND VISION

*The mission of the North Central Regional Library is to promote reading and lifelong learning.*

Our organization is dedicated to increasing the quality of life throughout North Central Washington by constantly expanding the benefits provided by a reading public. We provide the tools, programs, and books to inspire the citizens in our communities to read and continue learning. We are strongly committed to children's literacy and providing reading opportunities for youth.

*Our vision is that we are clean, smart, and friendly.*

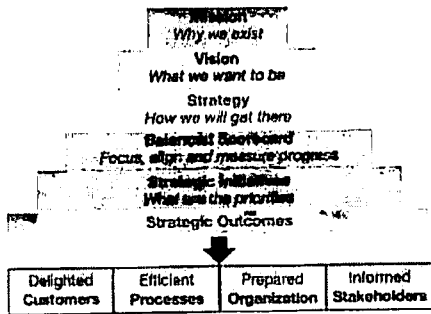
Everything about us is organized, attractive, and inviting. Our staff is well trained and constantly learning. Our patron services are easy to use and our interactions are of the highest quality.

EXP. DATE 10-17-07  
WITNESS Dan Hayward  
CHARLENE BECK

## WHAT IS THE BALANCED SCORECARD

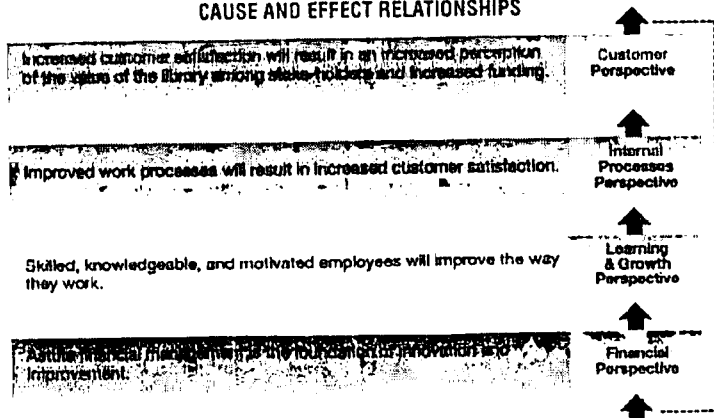
The Balanced Scorecard is a strategic planning model that makes performance measurement useful and meaningful to all layers of the library including customers. It uses performance measures in four interrelated perspectives: Financial, Learning and Growth, Internal Processes, and Customer. By continually measuring the performance of critical operations, the Balanced Scorecard allows the library to accurately monitor their progress more effectively and align daily work with desired outcomes.

### WHY ARE WE USING IT?



NCRL administrators have embraced the Balanced Scorecard because of its demonstrated ability to mobilize employees to accomplish organizational goals. The emphasis that the Balanced Scorecard places on performance measures will help NCRL prepare for new performance audits required by the State of Washington. NCRL administrators believe that either you measure your performance or someone else will. The Balanced Scorecard is an effective method for aligning day-to-day library operations with strategic objectives and turning theory into action.

### CAUSE AND EFFECT RELATIONSHIPS



## STRATEGIC READING PROGRAMS



Every Child Ready to Read  
@ your library@

**Every Child Ready to Read @ your library**  
NCRL embraces the Every Child Ready to Read @ Your Library initiative which focuses on teaching preliteracy skills to young children. A joint project of the Public Library Association and the Association for Library Service to Children, this initiative incorporates the latest research into a series of parent and caregiver workshops to help prepare parents for their critical role as their child's first teacher. NCRL contracted with author Saroj Ghoshing to provide workshops in 2005 and 2006 including an Every Child Ready to Read @ Your Library workshop and a "Fun and Facts of Early Literacy" workshop that integrates teaching preliteracy skills into library storytimes.

### Library Card Registration Drive

NCRL targets first graders in a library card registration drive. Branch librarians present booktalks at all first-grade classes within the library district and distribute library cards. Children are encouraged to visit the library to activate the card and receive their "My Library Card" lanyard.



### Summer Reading Program

NCRL has a long tradition of presenting ambitious Summer Reading Programs designed to entice children to read during the summer months when school is not in session. Research shows that the reading skills gained during the school year can be lost if students do not read during the summer. Other research shows that reading done outside of school assignments solely because the child wants to is critical to the development of a child's literacy skills. Through prizes, games, and an ambitious program schedule, NCRL's Summer Reading Program provides just that kind of skill-building experience.

### Reading Rockets

NCRL offers "Reading Rocket" toolkits and related programs that help parents, teachers, and caregivers support children's reading achievement. The Reading Rockets project is an educational initiative comprised of PBS television programs, online services, including the web site [readingrockets.org](http://readingrockets.org), and professional development resources.



### Bilingual Outreach

NCRL's Bilingual Outreach Program provides regularly scheduled Spanish/English storytimes at public schools, Head Start, Migrant Seasonal Head Start, ECEAP, and other facilities serving children throughout Grant County to foster emergent literacy and promote reading. In 2003, NCRL received a federal "Serving Cultural Diversity" grant that funded bilingual library materials, a van, and audio listening centers.

### Storytime Programs

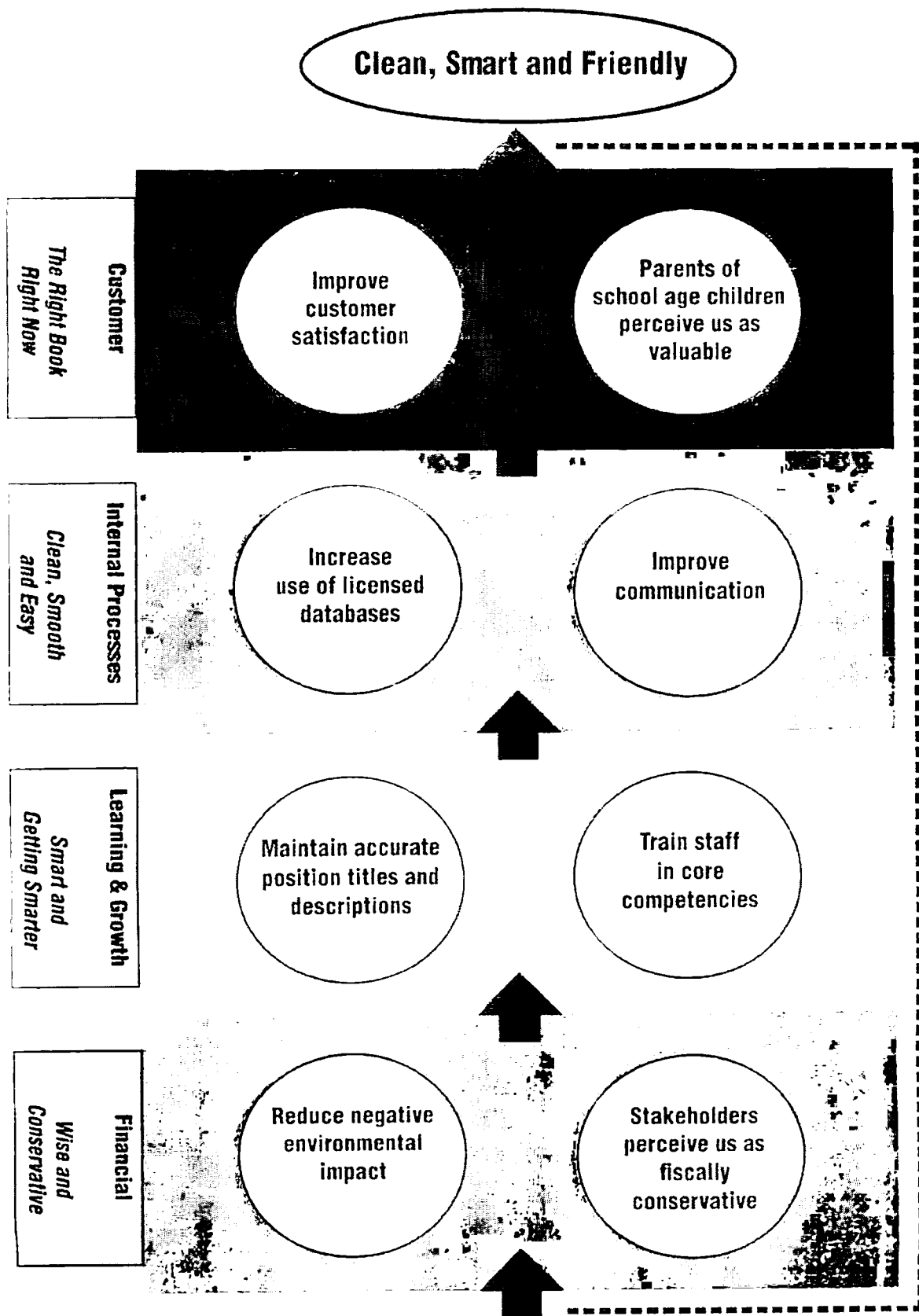
NCRL offers regularly scheduled storytime programs at all of its 28 branch libraries at least once each week. Storytimes are directed at preschool-age children, their parents, and caregivers. Storytime programs are intended to foster a love of books and reading among children and focus on teaching preliteracy skills.



### Authors in Residence

In 2004, NCRL directed its first author in residence program to middle-school age children by bringing author Ben Mikaulsen to six middle schools and the Wenatchee Public Library for programs. In 2005, author WB Hobbs presented programs and kids were encouraged to read his books *Far North* and *Jackie's Wild Seattle*. In 2006, children's author/illustrator Richard Jesse Watson and author Patrick Carmen presented programs at schools and libraries throughout the library district. In 2007, Erik Brooks was NCRL's author/illustrator in residence and Terry Trueman's *Stuck in Neutral* was featured in a teen "One Book" program.

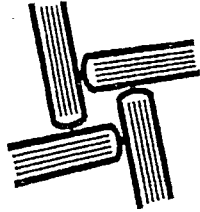
# NCRL Balanced Scorecard





Perspectives	Strategic Objectives	Measures	Targets	Results
Customer	Improve customer satisfaction	Branch customer survey results	Increase survey average by .1% quarterly	Survey average of 23.76
		MOL customer survey results	Increase survey average by .1% quarterly	Survey average of 23.46
	Parents of school age children perceive us as valuable	Number of minutes read as result of Summer Reading Program	16% increase in total minutes read	Available September 2007
Internal Processes	Increase use of licensed databases	Referrals to licensed databases	Establish baseline & increase referrals by 5% quarterly	March 2007 - 1,665 April 2007 - 2,601 (56% increase)
	Improve communication	% of email answered promptly	90% of email responded to within 48 hours	April 2007 Test 81%
Learning & Growth	Maintain accurate position titles and descriptions	% of position titles and description reviewed	Review all position titles and revise all position descriptions by 12-07	Annual
	Train staff in core competencies	% of salaried staff attending training	100% of salaried staff attend 4 or more training sessions annually	40% (32 of 80)
		% of substitutes attending training	100% of substitutes attend 1 or more training sessions annually	8.7% (11 of 126)
Financial	Reduce negative environmental impact	Gas mileage of district vehicles	Improve mileage of district vehicles by 10%	April 2007 Average 20.9 MPG
	Stakeholders perceive us as fiscally conservative	DVD loss rate	DVD loss rate of less than 2%	Annual
		Cost per circulation	5% reduction in cost per circulation	Annual

# Exhibit CC



**NCRL**  
North Central Regional Library

March 21, 2007

Steve Brown  
PO Box 292  
Republic, WA 99166

Dear Mr. Brown,

I received your "Material Selection Review Form" request regarding "Autos" on Yahoo.com and craigslist.org. We checked the "Autos" link on Yahoo.com and we were able to access it. It is not blocked by our Internet filter and we are unable to explain why you were not able to access it. Craigslist.org is blocked by our filter. It contains many images that we believe may be harmful to minors. We plan to continue to block access to craigslist.org using our Internet filter. We regret any inconvenience this experience at the Republic Library has caused you. If we can help connect you with information you need, if you continue to experience difficulty accessing "Autos" on Yahoo.com, and if you would like to discuss this in more detail, please do not hesitate to contact me.

Sincerely,

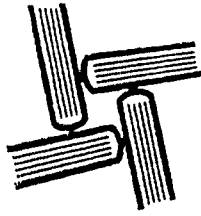
Dan Howard  
Director of Public Services

16 N Columbia Street, Wenatchee, WA 98801-8103 • Tel: 509-663-1117 • www.ncrl.org

EXH 48 DATE 10-17-07  
WITNESS Dan Howard  
CHARLENE BECK

NCRL 01590

# Exhibit DD



# NCRL

North Central Regional Library

Amy and B. J. Moore  
110 I Street SE  
Quincy, WA 98848

Dear Mr. and Ms. Moore,

A Material Selection Review form you completed regarding Myspace.com was forwarded to me. If I understand correctly, you are requesting that we review the website Myspace.com and consider allowing access to it from our library computers. An examination of the site found the presence of chat rooms and content that is potentially harmful to minors. Our current Internet filtering policy directs us to block access to both chat rooms and material that is potentially harmful to minors. With this in mind, we plan to continue to block access to Myspace.com. We regret any inconvenience this may cause you.

I understand that you want access to this site to use the email account you have there. We do provide access to email from Hotmail, Yahoo! Mail, and many other email services. You may want to consider using one of those services. If you would like to discuss this in more detail, please do not hesitate to contact me.

Sincerely,

Dan Howard  
Director of Public Services

EXH 49 DATE 10-17-07  
WITNESS Dan Howard  
CHARLENE BECK

\_\_\_\_\_ 3770 HKD  
\_\_\_\_\_ 2001.1.17  
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# **Exhibit EE**

Dan Howard

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**From:** Dan Howard [dhoward@ncrl.org]  
**Sent:** Tuesday, April 03, 2007 9:08 AM  
**To:** Judy Johnston  
**Subject:** RE: google images

Hi Judy,

Barbara forwarded your question to me. We recently learned that Google images and Yahoo images were not blocked by our filter. Searches for images at Google and Yahoo allowed unfiltered access which was inconsistent with our approach to filtering and the internet. This allowed the retrieval of images that we felt were potentially harmful to minors. These sites have been disabled. Please call me if you want to discuss this in more detail.

Thank you,

Dan Howard  
Director of Public Services  
North Central Regional Library  
16 North Columbia Street  
Wenatchee, WA 98801  
(509) 663-1117 Extension 122  
Email: dhoward@ncrl.org

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**From:** Barbara Walters [mailto:bwalters@ncrl.org]  
**Sent:** Monday, April 02, 2007 7:14 PM  
**To:** Dan Howard  
**Subject:** Fwd: google images

I will let you answer this one please...

BW

Begin forwarded message:

**From:** "brewster" <brewster@ncrl.org>  
**Date:** April 2, 2007 3:06:54 PM PDT  
**To:** plyons@ncrl.org, "Barbara Walters" <bwalters@ncrl.org>, "Marilyn Neumiller" <mneumiller@ncrl.org>  
**Subject:** google images

Hi,

I am not sure who to address this email to so I am sending it to all who may have an answer. Recently a number of patrons have asked why they can't access google images when they have always been able to before. Is there some reason why this is blocked?

Judy

5/23/2007

EXH 50 DATE 10-17-07  
WITNESS Dan Howard  
CHARLENE BECK



Barbara Walters  
North Central Regional Library  
[bwalters@ncrl.org](mailto:bwalters@ncrl.org)  
509.679.5550

5/23/2007

# Exhibit FF



Section Number 2  
Document Number PM 2005

Resolution 2007-28  
Adopted Date April 17, 2007  
**This is policy is the most current and active**  
Replaces Resolution 2004-35

POLICY TITLE: Internet and Computer Use

BE IT HEREBY RESOLVED by the Board of Trustees of the Stark County District Library that:

Statement

Integral to the mission of the Stark County District Library is the provision of meeting the informational, educational, cultural, and recreational needs of the diverse population of Stark County. Internet workstations are available to all adults and minors with parental consent as the library strives to be the community's premier resource center. Parents may choose filtered or unfiltered Internet access for their children under the age of 16. Usage is not restricted by need or residency. Each patron is asked to accept the Library's Internet Policy in order to initiate an Internet session.

Parameters

The information available on the Internet, due to its scope and diversity, may not be accurate, authoritative, factual, legal, reliable, or complete. Library patrons should carefully assess the validity of information located on the World Wide Web.

The Stark County District Library's Network supports access to the most commonly used Internet protocols. The content of some web sites may not be accessible due to Network security. Library employees are available to provide limited assistance to individual patrons. Patrons are encouraged to take advantage of Library workshops which provide basic instruction on the Internet and computer skills.

Patrons may save files to floppy disks, jump drives, and CD-R/RW media; send files to their personal e-mail accounts; or print documents for a fee at designated workstations. The option to save personal files to the hard drive or the Network is not available. The Library's computers can be used to access web-based e-mail accounts.

Patrons are welcome to use the Internet, but may not display images that are deliberately offensive or create a hostile or intimidating environment. Patrons may not display on screens or printers sexually explicit graphics or other materials which may be obscene.

BRADBURN  
OLIVER DEP.  
EX. 52

illegal, or harmful to minors as defined in local, state, and federal law or applicable court decisions. The use of the Internet or any computer devices within the library to engage in any activity which constitutes a violation of local, state, or federal law is strictly prohibited. Internet users are governed by the library's Appropriate Conduct Policy.

This Internet Policy will be reviewed by the Stark County District Library's Board of Trustees at least annually.

#### Liability

Absolute privacy for patrons using electronic resources cannot be guaranteed. Any user name, password, e-mail, credit card number, financial, or other information entered may not be private or completely secure.

Effective Date April 17, 2007

# Exhibit GG

## Introduction

I was asked by attorneys representing the North Central Regional Library District (“NCRL”) to write this report and present testimony concerning it to the extent necessary. I agreed. Although I do not engage in litigation consulting as my primary means of earning income, I am being paid for this engagement at the rate of \$400 per hour.

I was asked to explain how the NCRL filtering software works. I was also asked to assess the methods used in study of error rates in the filtering software NCRL uses as reported by Mr. Haselton. I was also asked to conduct a study of my own if I thought it would yield greater insight into whether the NCRL filters block more than the content they intended to block. I did conduct such a study, and report on the methods and results in this document.

I have also reviewed the report prepared by Bennett Haselton for purposes of the NCRL litigation. I had two main concerns with the study reported by Mr. Haselton. First, I was concerned that the set of URLs he tested might not be representative of those that NCRL library patrons actually visit. He selected a random sample of all possible domains. It seemed to me likely that library patrons would tend to visit more popular destinations than a random sample. For example, neither google.com nor yahoo.com appear in his random sample, but would almost certainly be viewed by library patrons. It also seemed to me likely that the blocking software would make fewer errors on more popular sites, because the Fortinet company that NCRL contracts with to provide the blocking service would invest more effort in correctly classifying more popular sites. Both these intuitions were born out in the results of the study I conducted.

Second, I was concerned with the reliability of Mr. Haselton’s classification of URLs. He did the classification based on loosely defined criteria, without any check on the reliability of his assessments (no second rater or inter-rater reliability or test-retest reliability check). This is contrary to the accepted practice in the social sciences when trying to turn subjective human assessments into an objective, repeatable measure. In our test, using more rigorous methods, we were still not able to achieve perfect reliability in our categorization of urls, suggesting that Mr. Haselton’s classification may have been even more error-prone.

## Personal Background

I am a Professor at the University of Michigan School of Information. In 2002, I conducted an assessment of the error rates on health-related websites of several commercial Internet filters. That study was published in JAMA, the flagship peer-reviewed journal of the American Medical Association. Appendix 1. A subsequent paper abstracting what we had learned about methods for conducting tests of filtering software was published in the Communications of the ACM, the flagship publication distributed to all members of the Association for Computing Machinery. Appendix 2. More details of my qualifications can be found in Appendix 3.

Dr. Derek Hansen is an Assistant Professor at the University of Maryland. He served as a research assistant on the 2002 study of Internet filters, where he was responsible for rating a large number of web sites based on whether they contained health information or not, and whether they contained pornography or not. Subsequently, as part of his Ph.D. project at the University of Michigan, he again had to develop a classification system for a corpus of texts (email messages and web pages). Though unrelated to filtering or pornography, that project gave him additional experience in creating a reliable categorization scheme and instructions for raters. More details of his qualifications can be found in Appendix 4.

Michael Hess has a master's degree from the University of Michigan School of Information. He has significant experience as a database and system administrator. He wrote the scripts for processing log files and created a web-based tool that allowed the raters to look at a large number of URLs and enter their assessments of them through a web-based form. More details of his qualifications can be found in Appendix 5.

## **How NCRL's Filters Work**

I have been told by NCRL staff that NCRL has installed a FortiGate firewall/proxy unit, sold by the Fortinet company, in each of its branch libraries. The FortiGate is a small piece of hardware, smaller than a typical laptop computer. My understanding is that all computers in all of the branches access the Internet by connecting through these FortiGate units, in the manner that I describe below.

## **What Happens When a Patron Fetches a Page**

To understand how the FortiGate affects the Internet activity of an NCRL patron, it is helpful to consider the sequence of steps that occur behind the scenes, invisible to an NCRL patron, each time a patron tries to visit a web page. A visit may be initiated either by directly entering a URL into the toolbar, by selecting a bookmarked favorite from a menu, or by following a link from another page. Regardless of how a visit to a web site is initiated, the same sequence of events occurs in the background. Fortinet provides the following diagram on its website to explain how its filtering works. My explanation is based on the explanation Fortinet provides to accompany the diagram on its website, with significant elaboration to explain terms that may not be familiar to non-technologists.

## FortiGuard Web Filtering Service

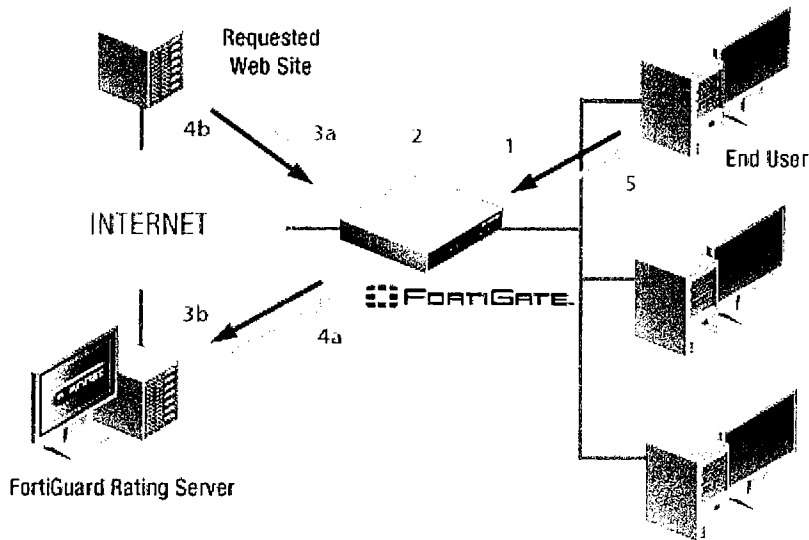


Figure 1. The sequence of events in a potentially blocked request to visit a URL.

Even before the first step shown in the diagram, the patron's computer does a little work to decode the URL that the patron has requested to view. Consider a URL such as <http://www.yahoo.com/nfl>. The first part, the letters "http" occurring before the //, constitute the service (or, more technically, the protocol). The http protocol is for connecting to a server to retrieve a web page. Other common protocols include https (for connecting to a server with an encrypted connection to securely retrieve a web page) and ftp (for downloading files).

The next portion, [www.yahoo.com](http://www.yahoo.com/nfl), including one or more periods and ending at the next /, is called the hostname or domain name. The Internet has a domain name system (sometimes called DNS) that allows the patron's computer to look up an address like [www.yahoo.com](http://www.yahoo.com) in order to find out a corresponding IP address such as 69.147.114.210. That numeric IP address uniquely identifies the destination host (the web server).

The third portion, [/nfl](http://www.yahoo.com/nfl) in this example, which begins after the domain name, is sometimes called the filename or path or urlpath.

Step 1. The patron's computer attempts to establish a connection to the IP address of the destination host. It tries to send a message that it would like to "GET" whatever the server provides in response to this urlpath, such as an HTML document or an image file. Because the patron's computer accesses the Internet through the FortiGate unit, however, a few other things happen along the way, and the patron's computer may not receive the same response it would have received had it been connected directly to the Internet, without going through a filtering proxy/firewall like a FortiGate.

Step 2. If the URL has been requested recently, by this patron or another patron in the same branch, the FortiGate may already have a cached copy of Fortinet's rating of the



URL or the server's response to that request. This may eliminate one of the requests in 3a or 3b, for efficiency reasons, but has no effect on whether the site will be blocked or not.

Step 3a. The FortiGate contacts the destination host, asking for the same urlpath that the patron's computer originally asked for. The FortiGate waits to receive a response at step 4b.

Step 3b. The FortiGate also connects another server, elsewhere on the Internet, labeled in the diagram as "Fortiguard Rating Server", and sends it the text of the requested URL. This server is maintained by Fortinet, not by NCRL. NCRL pays a subscription fee to allow its FortiGates to continue to use the Fortiguard Rating Server.

Step 4a. The rating server takes the URL and responds to the FortiGate with two pieces of information, a "category" and a "classification". For example, <http://sports.yahoo.com/nfl> is in the category "Sports" and classification "Unclassified". Each URL is classified in at most one category and one class. Sometimes, the FortiGuard rating server may temporarily malfunction (e.g., a power failure), or it may not provide category and class information for particular URLs. In that case, the FortiGate receives no response or a response that it cannot interpret.

Step 4b. The FortiGate receives the requested contents from the destination host.

Policy Evaluation Step. The FortiGate runs a simple policy evaluator program that evaluates whether the URL is blocked or allowed under the filtering profile in operation. The policy evaluator first examines whether the URL is one that is specifically exempt or blocked according to explicit local rules set by NCRL staff and stored as part of the filtering profile in the FortiGate. If so, the evaluator returns the result of that local rule.

If there is no explicit local rule, then the policy evaluator compares the category returned in Step 4a to the set of blocked categories in the filtering profile. The policy evaluator also compares the classification returned in Step 4a to the set of blocked classifications in the filtering profile. If either the category or classification is blocked, then the policy evaluator determines that the requested access should be blocked; otherwise it is allowed. If the Rating Server failed to return a category and classification, NCRL has configured the policy evaluator to allow access to the URL.

Logging Step<sup>1</sup>. The FortiGate then sends a line of information to a separate unit, called a FortiAnalyzer. The logfile entry includes the components of the URL (service, such as "http"; hostname, such as "[www.yahoo.com](http://www.yahoo.com)"; and url path, such as "/nfl"). It also includes a timestamp for when the access occurred, and which FortiGuard (and hence which NCRL branch) the request occurred in. Finally, it includes information about how the URL was classified by Fortinet (both category and class), and whether the request was allowed under the library's policy.

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<sup>1</sup> The library had not previously maintained logs. They turned on the logging feature to facilitate this test.

If the policy evaluator says that the access is allowed, then the data retrieved from the destination host are passed on, untouched, to the patron's computer. As far as the patron's computer (and the patron) is concerned, the content is exactly the same as it would have been had the FortiGate not been involved at all (i.e., unfiltered access).

If, on the other hand, the policy evaluator says that access is blocked, then the FortiGate does not send the contents it received from the destination host but instead sends a substitute. The exact content of the substitute depends on whether the blocked contents were an image rather than an HTML page, and on why the item was blocked. The patron's browser is not aware that it has received a substitute instead of what it would have received were the item not blocked. The patron's browser simply displays what it receives just as if that content came directly from the destination host. Figures 2-4 show three possibilities.

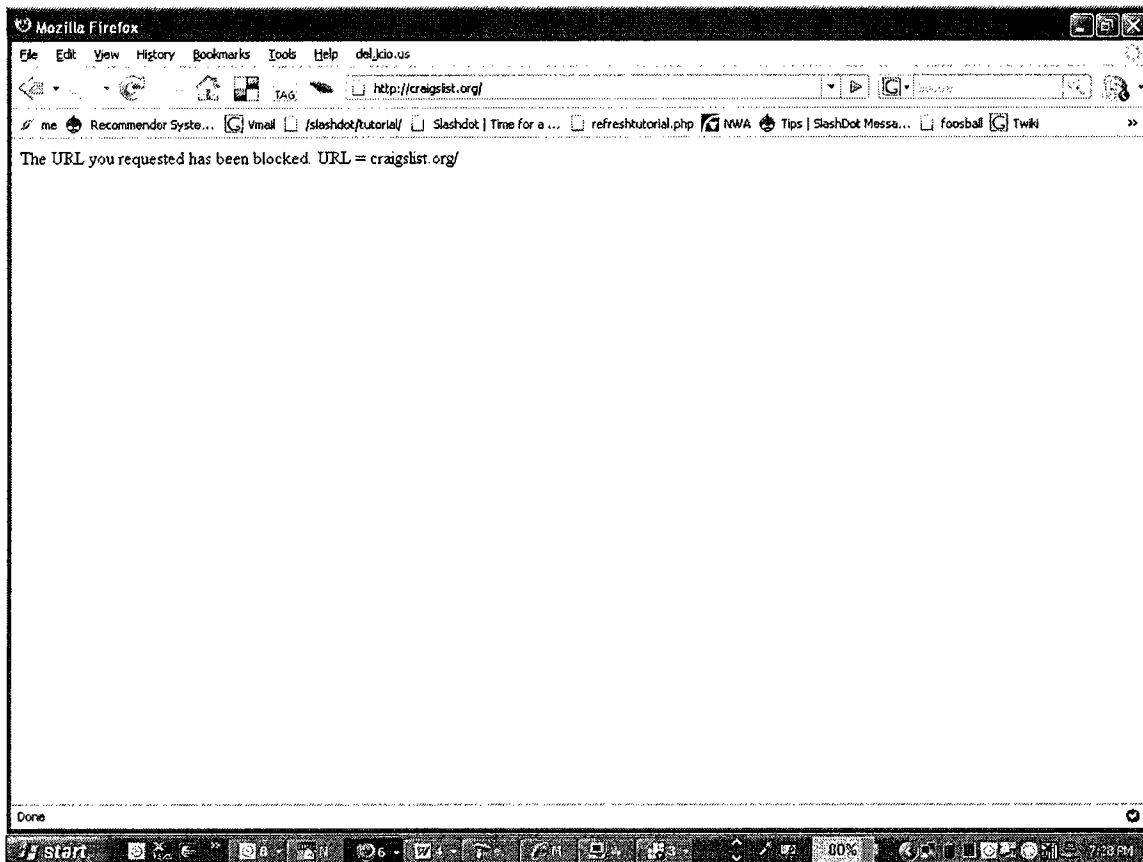


Figure 2. Substitute contents displayed to a patron when a patron requests to visit <http://craigslist.org>. This is displayed because craigslist.org is one of the sites explicitly blocked by a local rule set by NCRL.

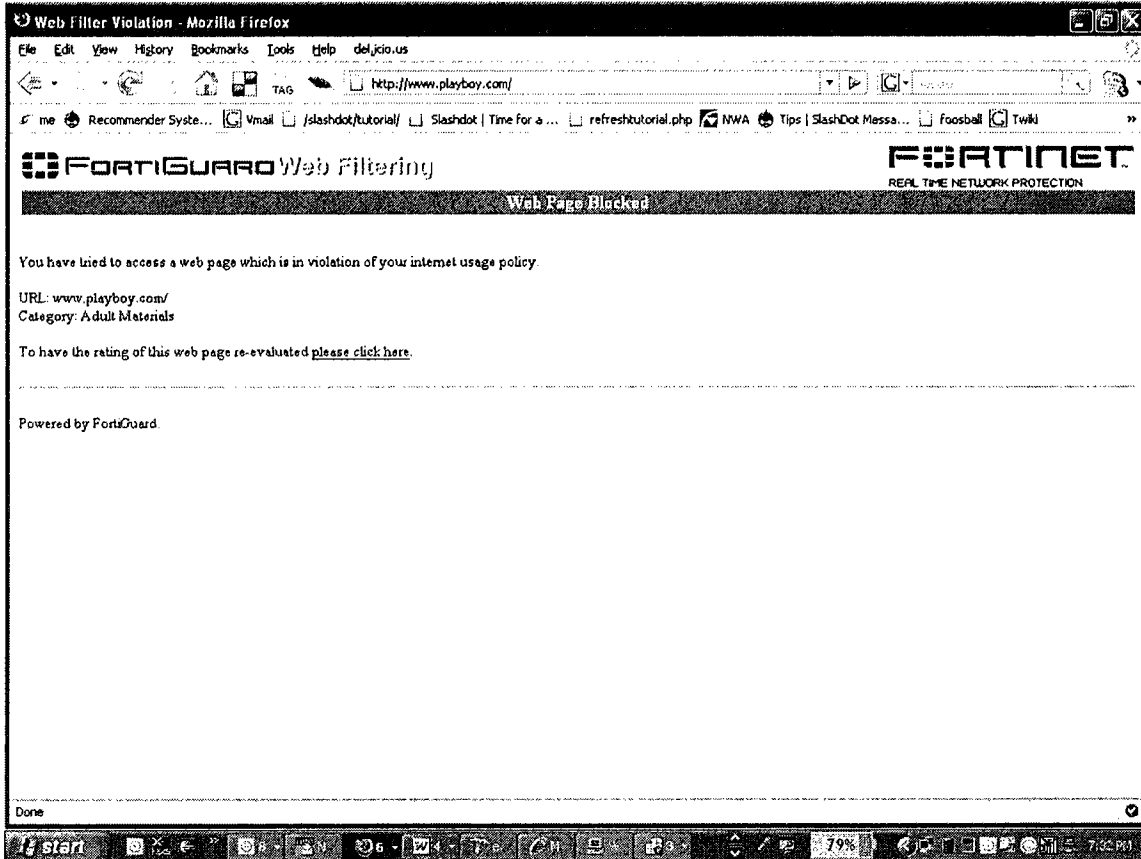


Figure 3. Substitute contents displayed to a patron when a patron requests to visit <http://www.playboy.com>. This is displayed because the FortiGuard Rating Server said that the site is in the category "Adult Materials".

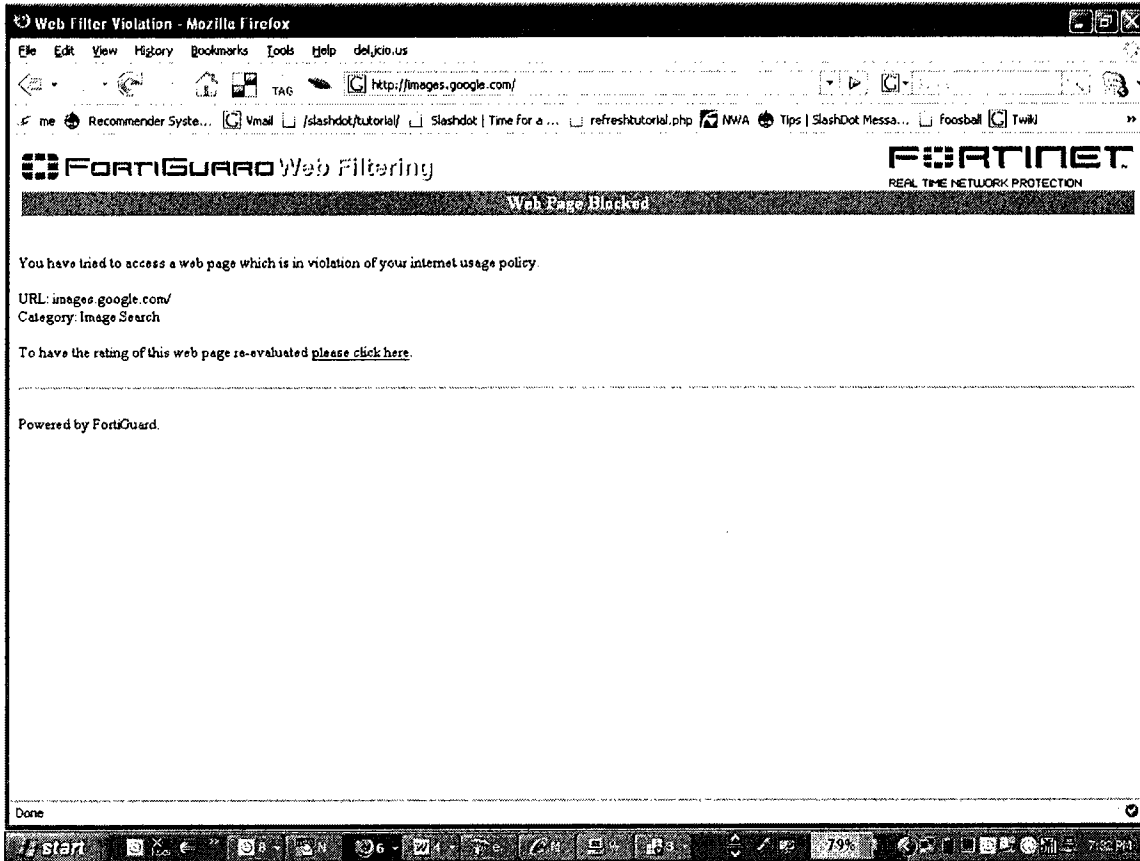


Figure 4. Substitute contents displayed to a patron when a patron requests to visit <http://images.google.com>. This is displayed because the FortiGuard Rating Server said that the site is in the class “Image Search”. (The information displayed to patrons does not distinguish between categories and classes, and the difference has little bearing on understanding the operation of the web filters or the assessment of error rates.)

Most modern web pages are actually combinations of many separate pieces of information, each involve the fetch of a URL. Consider, for example, the simple page shown in Figure 5. For the browser to display the page, it first requests the url <http://www.google.com/firefox>. A google webserver returns some text formatted in a special format called HTML. Included in that HTML text is the following line:  
``

When the web browser interprets the HTML text, it realizes that it needs to request this (and several other) images. So it generates a request for the URL <http://www.google.com/images/firefox/title.gif>. The server will respond to that request by sending an image file. The browser then displays that image in the appropriate place.

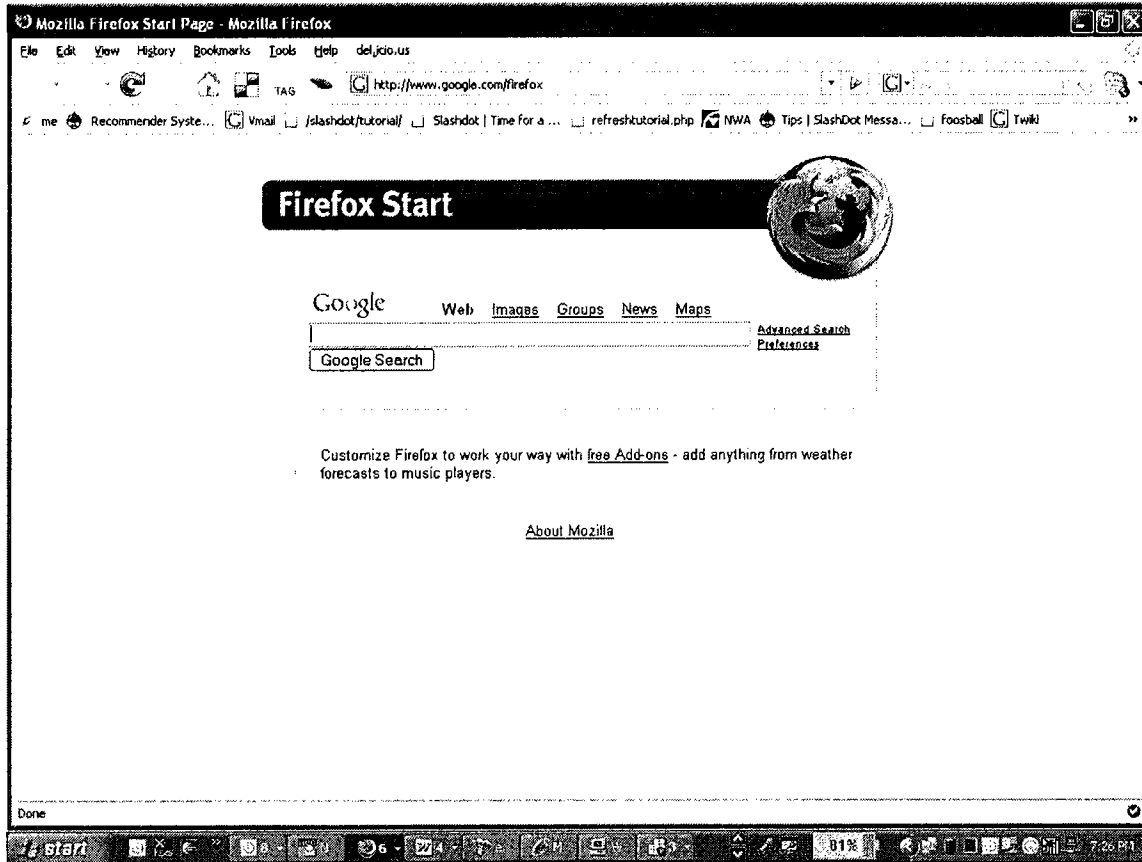


Figure 5. A web page with embedded images that are fetched separately after the initial HTML is retrieved.

In some cases, a URL may not be blocked, but the URL for an embedded image may be blocked. This can occur if the URL for an embedded image specifies a different hostname, or a very different path on the same server. When a policy says that a URL is to be blocked and the destination host returns an image file, instead of passing a blocked message to the patron's computer, the FortiGate substitutes a small invisible image. This has the advantage of not interfering with the patron's interaction with other parts of the page from which the embedded image is blocked. The disadvantage, however, is that, unlike in Figures 2-4, a patron may not realize that anything has been blocked.

For example, we discovered in our blocking test that the Fortiguard rating server seemed to classify all URLs that begin with <http://google.com/images> as having the classification "Image Search." An NCRL patron visiting <http://google.com/firefox> would see something like Figure 6, which omits several images, but still allows the patron to enter a Google search term.

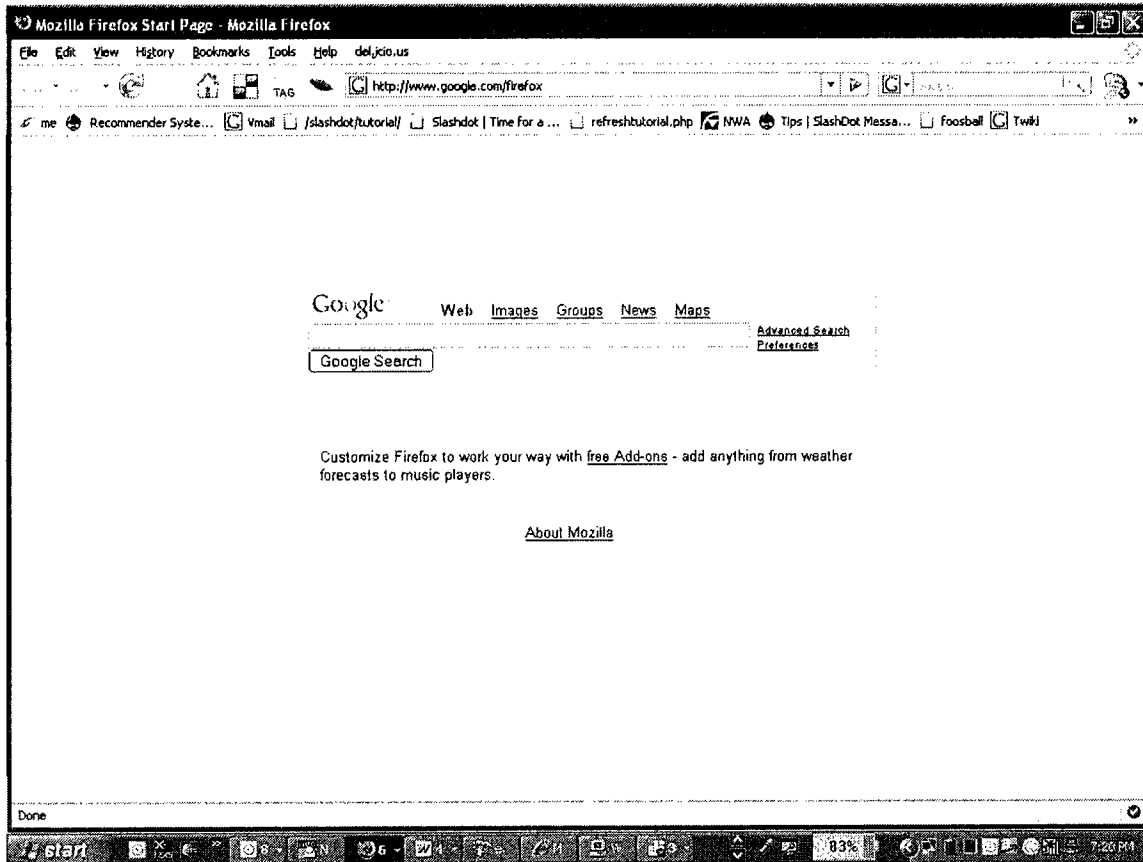


Figure 6. The same web page as in figure 5, but with the FortiGate blocking the delivery of several of the embedded helper images.

## NCRL's Blocking Policy

NCRL's staff use a web-based interface to configure the blocking policy and revise it as desired. The process consists of selecting, from among categories and classes defined by Fortinet, which to allow or block. For purposes of my work, I assumed the following categories and classes are being blocked by NCRL. For each, I include the description of the category or class, taken from the Fortinet website. In fact, the blocked categories and classes may now be different, as Fortinet may change the available categories and classes or NCRL may make different choices at any time.

- **Hacking** - Websites that depict illicit activities surrounding the unauthorized modification or access to programs, computers, equipment and websites.
- **Phishing** - Counterfeit web pages that duplicate legitimate business web pages for the purpose of eliciting financial, personal or other private information from the users.
- **Malware** - Sites that are infected with destructive or malicious software, specifically designed to damage, disrupt, attack or manipulate computer systems without the user's consent, such as virus or trojan horse.
- **Proxy Avoidance** - Websites that provide information or tools on how to bypass Internet access controls and browse the Web anonymously, includes anonymous proxy servers.

- **Spyware**- Sites that host software that is covertly downloaded to a user's machine, to collect information and monitor user activity, including spyware, adware, etc.
- **Pornography** - Mature content websites (18+ years and over) which present or display sexual acts with the intent to sexually arouse and excite.
- **Adult Materials** - Mature content websites (18+ years and over) that feature or promote sexuality, strip clubs, sex shops, etc. excluding sex education, without the intent to sexually arouse.
- **Nudity and Risque** - Mature content websites (18+ years and over) that depict the human body in full or partial nudity without the intent to sexually arouse.
- **Gambling** - Sites that cater to gambling activities such as betting, lotteries, casinos, including gaming information, instruction, and statistics.
- **Web Chat** - Websites that promote Web chat services.
- **Instant Messaging** - Websites that allow users to communicate in "real-time" over the Internet.
- **Image Search** – (Class) Websites providing search of images or photos, or the results of image or photo searches.
- **Video Search** – (Class) Websites providing search of video clips or the results of video searches.
- **Spam URL**- (Class) Websites or web pages whose URLs are found in spam emails. These web pages often advertise sex sites, single clubs, and other potentially nuisance or offensive materials.

In addition, NCRL's staff specify some local overrides: some URLs that will be exempt (allowed even if in a blocked category or class), and others that will be blocked (even if not in a blocked category or class). The following hostnames are explicitly prohibited:

- runescape.com
- easyriders.com
- craigslist.org
- images.google.com
- passmyass.com

The following hostnames are explicitly permitted:

- www.pongoresume.com
- Elijahlist.com
- Np.userful.com
- Userful.com
- Userful.ca
- Flickr.com
- Ringo.com
- Pubyac.org

## The Overblock Test

To estimate the amount of overblocking (blocking of sites that should be allowed under the library's policy), we conducted a test based on the URLs actually visited at NCRL branch libraries during the week of August 23-29, 2007.

Each time a FortiGard unit considers a URL and decides whether to allow it or not, a line is entered in a logfile on another unit, called the FortiAnalyzer. Unfortunately, the logfile doesn't always include all the information that would be needed to recover, at a later time, what information the destination host sent in response to the request. For example, a communication session may have been established and the host's response may depend on what the previous communication was; the destination host may not respond in the same way to the same URL in the future. In addition, some requests that are sent to web servers involve sending information beyond what is in the urlpath. These pose technical difficulties for conducting a test; sometimes it will not be possible to determine whether a particular request contained in the logfile should have been blocked. Fortunately, for most of the typical requests to examine a web page, the logged URL provides sufficient information; requesting the same URL at a later time will *usually* yield the same type of information that a patron received (or would have received had it not been blocked) and it can then be rated to see if it should have been blocked.

Since the library changed its filtering policy from the time when the logfile was generated, we used the information in the logfile to determine whether the URL would be blocked under the current policy. Some URLs that were blocked at the time (such as myspace.com) would not be blocked under the current policy and thus we treated them for the purposes of this test as if they were not blocked. The purpose of the test was to determine whether the Fortinet filters would make blocking decisions in accord with the current NCRL policies.

Many of the log file entries were not for downloads of initial web pages. They were for things such as flash movies, executable files, or embedded images, stylesheets, or javascript files. Some of these, such as executable files, were not ratable, since it would not be possible for raters to evaluate them without actually executing the files, a dangerous action for the raters given the many computer viruses that are out there. Others, such as stylesheets and javascript files, it makes no sense to rate on their own, outside the context of the webpage they were initially associated with.

Some non-ratable items were identified by the raters, as described below. To reduce the number of non-ratable items they would have to consider, we employed an automated mechanism to eliminate some blocked URLs from consideration. URLs that ended in .exe, indicating an executable file, were removed. In addition, some URLs were removed based on the "mime type" that the web server returned. When a web server responds to a request, it normally sends a text header indicating the "mime type" of the information it is sending. This descriptive text is occasionally inaccurate, but is generally a good indicator. For example, most web pages are labeled with the mime type "text/html" or sometimes "text/plain". Image files in .jpg format are usually labeled with the mime type "image/jpeg". We removed items of mime types "application/json", "application/octet-stream", and "application/x-msn-messenger". The last of these types indicates instant-messenger traffic, a category that should be blocked according to NCRL policy.



The total number of distinct URLs that were requested during August 23-29 was 466,840, from all the branches combined. The number of distinct URLs<sup>2</sup> that would be blocked under current NCRL policies was 2,222. Of these, 42 distinct URLs were removed as executable files or as mime types indicating non-ratable items, leaving a total of 2180 potentially ratable URLs.

In addition, we included 200 distinct unblocked URLs, selected at random from the log data. The purpose was to provide some distractors so that raters would not know whether the URL they were rating was one that the Fortinet would have blocked. Without such distractors, raters might have been biased toward classifying URLs as blockable.

The complete test set consisted of 2380 distinct URLs, 2180 that would be blocked under NCRL's current filtering policy.

### ***Popularity: Google Page Rank***

The set of URLs in the test set come from a set of domains that is not a random sample from the universe of all domain names (DNS entries). One measure of the popularity of a domain is the "PageRank" that Google assigns to it. Google determines the PageRank of a page based (in part) on the number of popularity of other web pages that link to a particular page. Google uses these PageRank scores to prioritize search results—pages with higher scores are presented higher in the search results.

Google allows outsiders to request the PageRank of URLs. We developed an automated script to collect these. PageRanks returned are integers from 1 to 10. Some pages Google does not assign a rank to, presumably because they are sufficiently unpopular to not have received a rank yet—we treat those ranks as 0.

We ran the script on the set of blocked domains from Mr. Haselton's expert report. That set, reportedly, was derived by taking a random sample of all valid domain names, then running an automated script to identify all those that Fortinet classifies as Pornography. There were 1848 of these domains in all. Their median PageRank was 0 (that is, more than half were unranked by Google) with a mean of 0.69 and a maximum of 6.

We also ran the script on the 2180 blocked URLs in our test set. To facilitate comparison with Mr. Haselton's set, we checked the PageRank of the base domain rather than the individual page that was accessed (e.g., "http:// imagine-windowslive.com" instead of "http://imagine-windowslive.com/common/resources/bridge.xml.aspx?Locale"). They came from 691 different domains (fewer than the total number of URLs because there were sometimes several different URLs blocked from the same domain.) The median

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<sup>2</sup> Our method of selecting all the distinct URLs involved an SQL query that treated URLs as identical if they differed only in use of small letters vs. capitals. In retrospect, this was a mistake on our part. In the logfiles, we found both <http://mystatus.skype.com/smallicon/quitteer> and <http://mystatus.skype.com/smallicon/Quitteer>. Technically, a web server may send a different file in response to requests for these. We rated only the latter. <http://mystatus.skype.com/smallicon/quitteer> was the only URL not rated because of our over-aggressive method of de-duplication.

PageRank for these 691 domains was 2, with a mean of 2.48 and a maximum of 10. For example, “/www.aim.com/” (AOL’s Instant Messenger) had a PageRank of 8.

## **Rating**

### **Inter-Rater Reliability**

In order to assess the reliability of a classification scheme, it is good practice to have multiple raters evaluate at least a subset of the items. The ratings of the raters are compared to assess the extent of agreement in their ratings. Researchers do not expect perfect agreement among raters, because classification is always an error-prone activity, but researchers like to see relatively high agreement in order to have confidence that the categories are well-defined. A raw measure of agreement is simply the percentage of items for which they gave the same rating classification.

In cases where one classification is much more frequent than others, however, this raw percentage can be misleading. For example, suppose there are two possible ratings, A and B. Suppose two raters each rate 100 items. Each rates A 95 times and B five times, but there is no overlap in which items they rate as B. As a raw percentage, they still agree on 90% of the cases (where they both rated A) and only disagree on 10%. However, this raw agreement rate of 90% would be misleading, as the two raters never agreed on a classification into the B category.

Social scientists have devised a measure of inter-rater reliability, called Cohen’s kappa, that accounts for the “expected frequency of overlap” when one category is assigned most of the time. It measures how much more agreement the raters have than would be expected if they were just rating at random using the observed prevalence of the categories. Kappa scores are fractions between 0 and 1. A rule of thumb for interpreting kappa scores is that scores above 0.8 indicate an excellent level of agreement. Somewhat lower scores are common, however, and published papers have used classification schemes with kappa scores even below 0.5.

### **Training Procedures**

A series of steps was taken before the actual rating of the sites. The first step was to develop a coding scheme that could be used to rate the sites.

The category scheme was developed through an iterative process. A training set of both blocked and unblocked URLs was selected from a day earlier in August, not overlapping with the set. Webpages from the training set were reviewed, classified (according to the most recent classification scheme), and discussed (especially when raters did not agree on the rating). When necessary, new categories and rules for applying categories were developed. For example, the categories for "Helper Images" and "Customer Support IM" were added to the original list. In addition, some blocked categories were grouped into one category when they covered similar content (e.g., Adult sites, Pornography, and Nudity/Risque were grouped together).

The initial coding scheme included the same categories that I was told NCRL was then blocking. We used the exact descriptions provided by Fortinet for each of these categories.

Additional categories including "inaccessible," "not for humans," and "FLAG" (which indicates that the rating should be double checked) were included based on our prior experience. This initial category scheme was refined first by me and Dr. Hansen, after discussing the appropriate rating of webpages from the training sample. The updated category scheme was again refined by the rating team (Dr. Hansen and 2 graduate student raters) after they independently rated sites and identified sites that were hard to rate or that were inconsistently rated.

The final categorization scheme and instructions to raters is documented in Appendix 6. It was discussed by the rating team to assure that each member understood how to apply it. They then practiced applying it again to the training set prior to rating of the URLs from the test site.

### **Classification of Sites**

As part of this study, two graduate students at the University of Maryland independently rated the sample of sites during a 1-week period. Students did not talk to one another at all about the rating during this period. They also had no idea how the Internet filter had categorized the webpages, in order to keep them from being biased. Furthermore, as mentioned previously, some non-blocked sites were included in the set so that the raters did not assume that a site should fit into one of the "blocked" categories.

The raters were encouraged to talk to Dr. Hansen if any issues arose, but not to provide specific webpages, as he would act as a third rater and did not want to be influenced by their rating of a specific site.

One of the raters asked if she should classify a site that consists of only one image (but not a helper image) based solely on the image or also on the rest of the site within which it was found. She was told to flag all such sites (to assure that they will be reviewed later by a 3rd rater) and to classify them based on the photograph and not the entire site for the time being).

A rater also contacted Dr. Hansen to tell him that she had coded some of the pages while using wireless access from a library and a coffee shop. She was concerned that there had been an Internet filter on the wireless that she had used. The result was that she classified some pages into the "No Session Data" category rather than the appropriate category, as she could not access them. To fix this problem we had her re-rate all of the webpages she had previously rated as "No Session Data", from an unfiltered location. Her updated ratings are used throughout the analysis.

Once all of the ratings were completed by the two raters, Dr. Hansen independently rated all of the webpages where there was a disagreement between the first two raters or where one of the raters had "flagged" the site as difficult to rate. He was not able to see the other

rater's classifications so that his rating would be truly independent. Again, the Fortinet classification of these URLs was not provided to Dr. Hansen, so as not to bias him.

Since the main purpose of the study was to evaluate whether the URLs blocked by Fortinet actually fall into one of the categories that NCRL blocks, we abstracted each rater's classification to indicate the following:

1. Was it possible to evaluate whether the URL should have been blocked? Items classified as "No Session Data", "Not for Humans", "Need to Login", "Inaccessible", or "Download Required" were considered Not-ratable.
2. If it was ratable:
  - a. Was the URL a helper element such as a small image that would normally be embedded inside a web page rather than being accessed as its own page?
  - b. Was the URL in any of the blocked categories or classifications?

Where the two raters disagreed or one had "flagged" the item, Dr. Hansen's rating was used as the final arbiter to determine our classification of the item.

Finally, we revisited all URLs, except for helper images, where Fortinet's classification was in one of the blockable categories or classes and our classification was "not blockable" or where Dr. Hansen's final classification was "blockable" while the two raters initially said it was not. In these cases, Dr. Hansen and Paul Resnick reviewed the URL jointly, with awareness of the Fortinet classification, and came to a consensus. Appendix 7 documents individually all the reclassifications that were done based on this manual checking.

## **Results**

### **Classifications and Reliability**

#### **Non-ratable**

Subsequent to the human rating process, we realized that the raters had trouble classifying some types of items that we could automatically identify as non-ratable, as detailed below:

- 12 URLs where the web server returned the mime type "application/x-javascript", "text/css", or "text/javascript".
- 66 URLs from the site omniture.com. All of these seemed to involve passing of session data that was not apparent in the URL, so that visiting the URL did not retrieve the same information that would have been retrieved by the patron.
- 167 URLs where Fortinet classified them as "Spam URL" or "Spyware". "Spam URL" is defined as URLs that are found in spam emails—this was not an assessment that we thought our raters could make just by looking at the URL. Similarly, "Spyware" is defined as sites that covertly download software to the user's computer, something that our raters would not have been able to assess. Our raters were not even asked to identify these categories. Our test is not able to

assess whether Fortinet is correctly blocking when it blocks URLs in these categories.

- 35 URLs where Fortinet classified them as “Hacking”, “Phishing”, or “Malware”. While we asked our raters to assess these categories, they found it difficult and were not able to do it reliably. Thus, we treat items that Fortinet classified in these categories as not ratable. Our test is not able to assess whether Fortinet is correctly blocking when it blocks URLs in these categories.

We examined the agreement of the raters on the remaining 2169 items where their human judgments of non-ratability were used. They agreed on 97.3% of these. In other words, the raters agreed 97.3% of the time whether a webpage was ratable or not. The kappa score was 0.71.

This level of agreement was sufficient to proceed. Where the two raters agreed, their assessment of ratability was used. Where Dr. Hansen independently rated the item, because the raters disagreed or one of them flagged the item, Dr. Hansen’s assessment of ratability was used. A total of 96 items were excluded based on the raters’ assessments (i.e., they were inaccessible or fell into one of the other non-ratable categories). Based on the manual re-check process involving Dr. Hansen and me, described above, three additional URLs were excluded as unratable. Thus, the total number of ratable items was 2070.

## **Helper image**

It was possible to identify most of the helper images automatically. A computer program downloaded each of the image files and extracted the dimensions of the image, in pixels. Small images were defined as those meeting all of the following conditions:

- One side <150 pixels
- The other side <400 pixels
- Total pixels < 22,500 (for comparison, a 150x150 image has 22,500 pixels)

There were 1338 small images identified in this way, all of which we treated as helper images.

Not all helper images could be identified through this automated means. Some images were in a format (.bmp) that we were unable to automatically extract their dimensions. Others were delivered as the sole contents of an HTML page, presumably intended to be displayed within a frame in a larger page. Because they were not returned as images directly, we did not automatically extract their dimensions. Finally, some images larger than our cutoffs were clearly intended to be embedded in a larger page (e.g., background images).

We examined the agreement of the raters on the remaining 732 items where their human judgments of non-ratability were used. They agreed on 89.2% of these. The kappa score was 0.70.

This level of agreement was sufficient to proceed. Where the two raters agreed, their assessment of “helper image” was used. Where Dr. Hansen independently rated the item, because the raters disagreed or one of them flagged the item, Dr. Hansen’s assessment of was used. A total of 197 items were identified as helper images based on the raters’ assessments. Based on the manual re-check process involving Dr. Hansen and me, described above, four additional URLs were identified as helper images. Thus, the total number of helper images was 1539.

## **Other Image**

We identified other images purely by the mime type returned by the server. Of the remaining 531 URLs, 179 were of one of the following types: “image/bmp”, “image/gif”, “image/jpeg”, “image/png”, and “image/x-icon”. In addition, 15 were of type “application/x-shockwave-flash”, indicating that they were Flash files which, if the browser has an appropriate player installed, will launch an interactive, animated image. Flash files are often used to create ads with movement in them, as well as games. We grouped them along with the images because of their primarily visual nature.

## **Web Pages**

The remaining 289 URLs included 280 of type “text/html” and 9 of type “text/plain”. The former are what we normally think of as web pages. For example, the mime type of a page at Yahoo! such as <http://www.yahoo.com/nfl> is of type “text/html”. Text/plain is generally used for web pages consisting purely of text, without links or formatting information.

## **Other**

An additional 48 urls had no mime type at all. This can be caused by a web server being improperly configured or a malformed web page. For example, among these 48 I found a user page at Geocities, a website that hosts individual web pages. There were also a number of URLs ending in .jpg or .gif. We treat these urls separately in the analysis because most of them are not full web pages.

## **Forbidden**

We classified all the ratable sites as either forbidden (i.e., should be blocked based on the library policy) or not (i.e., should be accessible based on the library policy).

As a result of the manual check process described, we identified a number of image search sites, one of the blocked categories. Since raters evaluating individual pages at these sites did not always realize that the site as a whole was an image search site, we automatically classified all the distinct URLs from these sites as forbidden. 578 of the 1539 helper images were classified this way as image search. 120 of the 194 other images were classified this way as image search. 26 of the 289 web pages were classified this way as image search. None of the other (no mime type) urls was classified as image search.

We examined the agreement of the two raters on the remaining 1346 ratable items. Overall, they agreed on 94.6% of these items. In other words, our raters agreed 94.6% of the time on whether or not a page should be forbidden based on the library policy. The kappa score was 0.84. (The automatic classification of the image search sites had little impact. The overall agreement on all 2070 items was 95.1%, with a kappa score of 0.82.)

This level of agreement was sufficient to proceed. Where the two raters agreed, their assessment of “forbidden” or not was used. Where Dr. Hansen independently rated the item, because the raters disagreed or one of them flagged the item, Dr. Hansen’s assessment was used. A total of 457 items were identified as forbidden based on the raters’ assessments. 613 more items were identified as forbidden based on coming from the identified image search sites. Based on the manual re-check process involving Dr. Hansen and me, described above, 41 additional URLs, from 9 sites, were identified as forbidden.

The table below shows the total number of URLs that we classified as forbidden and not, in the different groups.

	Forbidden	Not	Total
Helper image	662	877	1539
Other image	170	24	194
Web page	269	20	289
Other	5	43	48
Total	1106	964	2070

### **Blocked-Site Overblock rates**

One way to compute error rates for filtering software is to compute the blocked-sites overblock rate.<sup>3</sup> This error rate is based only on the blocked sites, calculating the prevalence of errors in that set. It does not assess the prevalence of errors overall in the user experience, as it does not consider how prevalent blocking is. Where appropriate, I compute the blocked-sites overblock rate for each of the different groups of urls.

### **Helper images**

The results for helper images are as follows.

Excluding non-ratable items, our raters classified 744 out of 1406 blocked helper images as “OK”, meaning they were not in any of the forbidden categories or classifications. For helper images, our raters classified only the images themselves, without considering the rest of the site accessible at the same host. Thus, for example, a clickable image advertisement for a porn site would not have been classified as porn unless the image itself was pornographic.

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<sup>3</sup> For a discussion of this and other error rates, see the article “Calculating Error Rates for Filtering Software” included as Appendix XX.

Some of Fortinet's classification of these helper images are errors. For example, an image of Google's logo, found at <http://www.google.com/images/firefox/google.gif>, was blocked as being from an "Image Search" site. It is actually not from Google's image search service. Given our rating system, it is not possible to determine what percentage of the blocks of helper images are in fact errors. There is no meaningful error rate that can be given for these helper images.

Some of the error blocks for these helper images would have a relatively benign impact on the information seeking of library patrons. For example, Figure 5 shows that a patron going to the page <http://www.google.com/firefox> (the default homepage after installing the Firefox browser), would miss some of the graphics, but still would be able to enter search terms. Omission of other helper images as a result of incorrect classifications by Fortinet could cause more serious degradation of the user experience. For example, if a blocked helper image was a navigation icon, its omission might leave the user with no way to navigate a site. Given the design of our study, it is not possible to determine what percentage of the erroneous blocks of helper images would have an impact on the information seeking experience of library patrons.

Appendix 8 includes a list of the URLs that were blocked in error, along with their Google PageRank.

### **Other image files**

The results for other images are as follows.

Excluding non-ratable items, our raters classified 24 out of 194 blocked full-size images as "OK", meaning they were not in any of the forbidden categories or classifications. The estimated image-files overblock error rate was 12.4%, with a (95%) confidence interval of [8.1% - 17.9%], computed by the statistics package stata/SE version 9.1.

The mean Google PageRank for the domain names of the 170 correctly blocked items was 1.86. The mean PageRank for the domain names of the 24 incorrectly blocked items was 0.79.

Appendix 9 includes a list of the URLs that were blocked in error, along with their Google PageRank.

### **Web pages**

The results for actual web pages are as follows.

Excluding non-ratable items, our raters classified 20/289 as "OK". The estimated blocked-sites overblock error rate was 6.9% with a (95%) confidence interval of [4.3% - 10.5%], computed by the statistics package stata/SE version 9.1.

Of these, 5 were placeholder/advertising/splog sites that contained only outbound links to other sites and may well have been porn sites previously. Leaving those out, we have a ratio of 15/284, or 5.3% of the blocks of URLs for actual web pages were errors. The



(95%) confidence interval for this estimate is [3.0% - 8.6%], computed by the statistics package stata/SE version 9.1.

The mean Google PageRank for the domain names of the 269 correctly blocked items was 3.53. The mean PageRank for the domain names of the 20 incorrectly blocked items was 2.65.

Appendix 10 includes a list of the URLs that were blocked in error, along with their Google PageRank.

## **Other Pages**

Only 3 of the ratable “other” URLs were blocked by FortiGard. Two of these we classified as forbidden; one as ”OK”. Because of the small numbers, it is not possible to estimate an error rate for this type of item.

## **Overall Overblock Rate**

Another measure of the error rate considers how frequent overblocks are among all page accesses, not just among those that are blocked. I compute this error rate for those URLs that were web pages.

We were unable to collect the mime types for all of the urls in the logfiles for August 23-29 before this report was due. However, there were at least 55,439 distinct URLs of type text/html and 5,514 of type text/plain, for a total of at least 60,000 web pages. With 20 total errors in the week, that means that only 1 out of every 3,000 page views would have resulted in a page being blocked in error. Some additional pages may have had some embedded helper images incorrectly omitted.

## **Summary of Opinions**

The Internet offers a vast array of information resources, not all of it desirable. Any real-time filter that attempts to block access to certain kinds of items, whether it be computer viruses or pornography, will make some errors of commission and some errors of omission. It will block some items that are not truly in the categories that are meant to be blocked, and fail to block some items that.

Rather than focus on whether errors occur, I think the focus should be on their prevalence. When assessing the prevalence of errors, I think it is important to choose a sample of items to test that is representative of the appropriate universe of items for which error prevalence is being investigate. For filters installed in libraries, the most appropriate sample is a representative set of items that were actually accessed. I have found in this study that NCRL patrons tend to access more popular domains, as measured by Google PageRanks, than a random sample of all registered domain names. Moreover, I have found that blocking errors are less likely to occur on more popular domains. Thus, any study based on a random sample is likely to overstate the error rate.

In this study, I found that less than 1/3 of 1% of patron requests for web pages resulted incorrect blocks. Approximately 5-10% of actual blocks were errors, but blocks were

infrequent overall. Indeed, during a week, across all the NCRL branches, only 20 pages were incorrectly blocked among more than 60,000 page requests. Similar results hold for requests for full-size images, with an additional 24 incorrect blocks during the week, across all the NCRL branches.

Potentially of greater concern is the greater prevalence of over-blocking for embedded images. 877 different URLs for embedded images were incorrectly blocked, at least according to our classification which was based only on the images themselves. The number may be inflated because a single page typically refers to many helper images and if one is blocked they may all be. Arguably, it may be appropriate to block images that are teasers for click-throughs to adult-only sites, even if the teaser images do not themselves involve nudity. Still, there is reason for some concern on this front that helper images such as navigation icons may be getting blocked incorrectly. Fortinet could probably remedy this situation relatively easily by monitoring frequently checked URLs (navigation icons are likely to be used on multiple pages and thus be accessed quite frequently) and reassessing their classifications. I recommend that NCRL, as a customer, urge Fortinet to take these measures. I do not, however, believe that the error rate on these helper images is sufficient to warrant a drastic move such as removing the filters altogether or shutting off Internet access altogether, if the filters are otherwise accurately reflecting the library's collection policy and if it is legal to attempt to apply that collection policy to the Internet.

Another potential concern with overblocking, besides prevalence, is whether it is systematically biased against certain types of information. For example, five years ago there were concerns that then-popular commercial filtering products (Fortinet was not included in that study) were blocking access to valuable health-related information along with pornographic materials. I conducted a study specifically to assess the overblocking rates specifically for health-related materials. Overall, I did not find in that study that filters were blocking a lot of health information (when configured only to block pornography and not broader categories). I did, however, find that certain types of health information, on controversial topics such as safe sex and homosexuality, were more likely to be blocked, which was a special cause for concern.

I have not been informed of any special concerns about particular kinds of information being blocked in error by NCRL, using the Fortiguard rating service. In reviewing the particular web pages and full-size images that were blocked in error, and glancing through the URLs of blocked helper images, I do not detect any pattern that would suggest to me that the errors are anything but random. Thus, I do not see any reason to believe that particular categories of information are being blocked, other than those that NCRL has explicitly chosen to block.

# **Exhibit HH**

## Computer / Internet Policy

*Approved by the Jefferson County Library District Board*

The Jefferson County Library's mission is to provide educational, recreational and vocational material to respond to the needs of the citizens of Jefferson County. We are pleased to provide computer and Internet access to the public. The library does not monitor the computers and has no control over information accessed through the Internet. Valuable information is available through the Internet, but not all sites are accurate, complete, current or free. Many sites may carry information some consider is inappropriate. As with other library materials, restriction of a child's access to the Internet is the responsibility of the parent or guardian.

1. To use the computers, users must sign in at the front desk for an assigned computer. Do not change computers. To use the Internet, users under 14 must have a signed parental permission slip on file at the front desk.
2. Each user is limited to ONE hour per day of computer time. Patrons can sign up for a maximum of 2 one-hour slots per week, unless special arrangements are made. User time is calculated for any and all users at a station.
3. Reservations for the computers can be made up to one day in advance. Reservations will be held for 10 minutes after the appointment. If user is unable to keep his appointment, call and cancel or the time will be counted as used.
4. No more than 2 people at a computer station at a time.
5. Foul language will not be tolerated.
6. Staff members are sometimes available for minimal instruction.
7. Notify the front desk if technical difficulties are encountered.
8. CHARGES: Printing—The first 10 pages are free per appointment. After that the charge is 10 cents per copy. Reformatted 3.5-inch floppy disk--50¢. These items must be paid for before leaving the building.
9. The library requires responsible and ethical use of the computers including:
  - No sending, receiving or displaying text or graphics, which may reasonably be construed as obscene.
  - Make only authorized copies of copyrighted or licensed software or data.
  - Do not use resources for unauthorized, illegal or unethical purposes.
  - Respect the privacy of others by not misrepresenting yourself as another user.
  - Do not attempt to modify (or gain access to) files, passwords, or data belonging to others, or any other computer system.
  - Use equipment without damaging or altering software or hardware components of any network or database. Patrons will be held financially responsible for damages incurred.
10. Library computer use has priority over patron use.
11. An adult must accompany children under 8.

**Anyone who violates the computer/Internet policy can be asked to leave and/or forfeit library privileges. The Library will decide duration of the disciplinary action.**

I have read, understand, and agree to the Jefferson County Library District's Internet Policy.	
_____ Signature	_____ Date
My child _____ Has permission to use the Internet.	
YES	NO

⚡ Users under 14 must have a signed permission slip in order to access the computer.

BRADBURN  
BEESLEY DEP.  
EX. 62

# **Exhibit II**

Jefferson County Library District  
RULES OF CONDUCT

*Passed by the Jefferson County Library District Board of Directors on April 2, 2002.*

---

Library users shall obey the laws and ordinances of the United States, the State of Oregon, and the City of Madras. Malicious destruction or vandalism of library property and/or grounds shall be prosecuted. Persons not engaged in normal library activities may be asked to leave the building. Loitering shall not be allowed. The following are guidelines for library use.

Library users shall:

1. Respect the Rights of Others by
  - a. Refraining from
    - i. Willfully disturbing other library users i.e. creating any unreasonable noise, including loud talking,, singing, running, boisterous activity and the playing of audio equipment of any type, which disturbs other patrons or staff.
    - ii. Physical and verbal abuse, obscene conduct, displaying obscene materials and solicitations for illegal activities.
    - iii. Presenting offensive and pervasive odor or odors, which constitute a nuisance to the other patrons or staff.
    - iv. Soliciting or begging for money or other physical items or selling any items.
    - v. Personally monopolizing library space, seating, tables or equipment to the exclusion of other patrons or staff.
    - vi. Obstructing the aisles and walkways or monopolizing any library space with large packages or personal effects.
    - vii. Engaging in any act, which clearly disrupts or prevents the normal and intended use of the public library by any other patrons or staff.
  - b. Respecting quiet areas posted in the library.
  - c. Supervising children under six who are in their care and who do not assume responsibility for the Rules of Conduct.
  - d. Cooperating with library staff who interpret and apply the rules.
  - e. Using cell phones only in lobby of building
2. Respect Library Materials by
  - a. Keeping materials clean, dry and free of damage i.e. cutting, tearing, defacing, breaking or injuring any Library book, materials or property.
  - b. Using audio-visual materials only on equipment in good operating condition.
  - c. Returning all borrowed materials or renewing them by the due date.
  - d. Paying fines and fees for late and damaged materials.
3. Respect Library Facilities, Furnishings and Grounds by
  - a. Helping to keep public areas clean and orderly, putting magazines and newspapers back where they belong.
  - b. Using furnishings and equipment according to the intended design of each.
  - c. Observing the "No Smoking, Eating and Drinking" rules in all public areas. Food and beverages may be permitted in the meeting rooms.
  - d. Keeping pets outside the building in appropriate areas.

BRADBURN  
BEESLEY DEP.  
EX. 63

- e. Parking bicycles in the bicycle racks not in the lobby or by front doors
- f. Wearing shirts and shoes inside the building.
- g. Refraining from using skate boards, skating equipment, personal vehicles or similar items on library grounds.
- h. Respecting five-minute limit on public phone.
- i. Refraining from defacing, marking, or damaging library facilities, furnishings or grounds.

PERSONS WHO COMMIT PROHIBITED ACTS MAY BE EXCLUDED FROM THE LIBRARY OR SUBJECT TO ARREST AND PROSECUTION.

# **Exhibit JJ**





P

People Search powered by Google

Home | Browse | Search | Invite | Film | Mail | Blogs | Favorites | Forum | Groups | Events | MySpace TV | Music | C

Cool New Videos

75,195 uploaded today!



Super Bowl Commercials SuperBowl Ads



Wheel Sucks! Super Bowl Ads



Amp Energy Car Jump Super Bowl Ads



Ice Breaker C. Electra Super Bowl Ads



Books

Celebrity NEW!

Chat Rooms

Comedy

Downloads

Filmmakers

Forum

Grade My Prof.

Horoscopes

Impact NEW!

Jobs

Mobile

Movies NEW!

Music

Music Videos

MySpaceIM

News NEW!

Profile Editor

Ringtones

Schools

Sports

Latino

MySpaceTV

Weather

Member Login

E-Mail:

Password:

Remember Me

LOGIN

For

Find Your Friends

Check your Yahoo!, Hotmail contacts and find them

Cool New People

Ignacio

the 3rd!



MySpace Music

[more music]



Nada Surf

Rock / Pop Brooklyn, NY

For the past decade, these beloved Brooklyn-ites have been chasing the perfect indie pop album. On their latest effort, Lucky, they've gotten closer than ever to catching it. Listen to the record now, before it hit stores 2/5, by clicking right here.

» Listen Now

Videos



Hamster

This little face.

» Watch

MySpace Specials

See STEP UP 2 for FREE!

MYSPACE EXCLUSIVE! Black Curtain Screenings is showing

Sponsored Links

New Exclusive Condominiums and townhouse project in Montreal Downtown, etc



STEP UP 2. This special advance screening hits MIAMI on February 7th -- don't miss it! **Check it out!**

[www.stluchabitation.com](http://www.stluchabitation.com)

**2008 Super Bowl Ads**  
They Paid \$3 Million, So Please Watch!  
[www.Edmunds.com](http://www.Edmunds.com)

**Go Daddy Commercial**  
Check out GoDaddy's Superbowl Commercial  
Domains  
[GoDaddy.com](http://GoDaddy.com)

**E\*TRADE's Super Ads**  
Baby talk? You betcha! See the ad about.  
[ETRADE.com/tvads](http://ETRADE.com/tvads)

<p><b>Get Started On MySpace!</b> Join for free, and view profiles, connect with others, blog, rank music, and much more!</p> <p style="text-align: right;">» Learn More</p>	<p><b>Create Your Profile!</b> Tell us about yourself, upload your pictures, and start adding friends to your network.</p> <p style="text-align: right;">» Start Now</p>	<p><b>Browse Through Profiles!</b> Read through millions of profiles on MySpace! See pix, read blogs, and more!&gt;</p> <p style="text-align: right;">» Browse Now</p>	<p><b>Invite Your Friends!</b> Invite your friends to MySpace and invite their friends to grow even larger!</p>
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myspace present  
**A PRESIDENTIAL DIALOGUE**

User Shortcuts:  People  Search

Home | Browse | Search | Invite | Film | Mail | Blogs | Favorites | Forum | Groups | Events | MySpace TV | Music | Cor

**Barack Obama**



"Join the Official Barack Obama Myspace Profile"

Male  
46 years old  
CHICAGO, Illinois  
United States

**VOTE**  
FEBRUARY 5<sup>TH</sup>

Last Login: 2/4/2008

View My: [Pics](#) | [Videos](#)

**Contacting Barack Obama**

Send Message	Forward to Friend
Add to Friends	Add to Favorites
IM / Call	Block User
Add to Group	Rank User

**MySpace URL:**  
<http://www.myspace.com/barackobama>

**Barack Obama's Interests**  
General

**Barack Obama is in y**

**Barack Obama's Latest Blog Entry**

New Videos Obama Supporter Videos

Yes We Can: The Video ([view more](#))

Young Voter Video, MySpace Dialogue [more](#))

Barack Obama's Response to Bush's F

Ted Kennedy Endorses Barack Obama

[[View All Blog Entries](#)]

**Barack Obama's Blurbs**

**About me:**  
Supporters from across the country - this new independent video featuring will.i.am of the Black Eyed Peas, John others... Take a look at the video eve song...

Sponsored Links

**Hillary or Obama?**  
Celebs Pick their Choice - Vote Now!  
Who Do You Want to Win?  
www.SodaHead.com

**Mike Huckabee in 2008**  
Searching for a conservative? Learn  
more about Mike Huckabee.  
www.mikehuckabee.com

**Go Daddy Commercial**  
Check out GoDaddy's Superbowl  
Central! \$6.99 .COM Domains  
GoDaddy.com

**Seattle Pon**  
Visit the Official S  
Drive a Po  
www.NWP

User Shortcuts:

People  Search

[Home](#) | [Browse](#) | [Search](#) | [Invite](#) | [Film](#) | [Mail](#) | [Blogs](#) | [Favorites](#) | [Forum](#) | [Groups](#) | [Events](#) | [MySpace TV](#) | [Music](#) | [Come](#)

### Hillary



Female  
60 years old  
Chappaqua,  
New York  
United States

Last Login:  
2/4/2008

[View My: Pics](#) | [Videos](#)

### Contacting Hillary

**MySpace URL:**  
<http://www.myspace.com/hillaryclinton>

### Hillary is

### Hillary's La

[Subscribe to this

The Morning HUBd.

Tune in Tonight for  
more)

New Information (

The Morning HUBd.

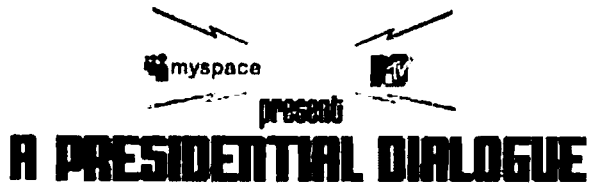
Hillary is the Demo

[View All Blog Ent

### Hillary's Stc

Hillary was raised in  
From that classic su  
went on to become  
and families; an att  
America; a First Lac  
bestselling author;  
role, becoming a ch  
champion of womer

### Show Your



User Shortcuts: [dropdown]

People [dropdown]

Home | Browse | Search | Invite | Film | Mail | Blogs | Favorites | Forum | Groups | Events | MySpace TV | Music | Come

## John McCain is Celebrating a Great ' Florida!



Male  
71 years old  
Phoenix, Arizona  
United States

Last Login:  
2/4/2008

Mood: accomplished   
View My: [Pics](#) | [Videos](#)

### Contacting John McCain

### John McCain's Latest Blog En

[Subscribe to this Blog]

Our position: McCain has the background, expertise to  
(view more)

Trenton Times (NJ): GOP Primary: McCain (view more)

Florida Governor Charlie Crist Endorses John McCain! (

Sylvester Stallone (aka Rambo/Rocky) Endorses McCain  
(view more)

General Norman Schwarzkopf Endorses John McCain Fo  
(view more)

[View All Blog Entries]

MySpace URL:

Sponsored Links

**Mitt Romney Book**  
10 things every American should know  
about Mitt Romney  
DeseretBook.com/romney

**Mike Huckabee in 2008**  
Searching for a conservative? Learn  
more about Mike Huckabee.  
www.mikehuckabee.com

**Mitt Romney 08 Gear**  
Mitt Romney for President shirts, hats,  
buttons . . . more!  
www.goptrunk.com

**Gordon B**  
Mormons mourn th  
Video tribute and  
www.Beli

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## Mitt Romney



"The Official  
MySpace Page  
of Governor  
Mitt Romney"  
Male  
60 years old  
Boston,  
Massachusetts  
United States  
Last Login:  
2/4/2008

### MITT ROMNEY'S LATEST BLOG ENTRY

- [Subscribe to this Blog]
- Welcome FredHeads (view more)
- Turnaround at Bain & Company (view more)
- "His Performance Was Flawless" (view more)
- A Boston Sweep (view more)
- Limited Edition 2.0 (view more)
- [View All Blog Entries]

View My: [Pics](#) | [Videos](#)

Welcome

### Contacting Mitt Romney

- Send Message
- Forward to Friend
- Add to Friends
- Add to Favorites
- IM / Call
- Block User
- Add to Group
- Rank User

MySpace URL:  
<http://www.myspace.com/mittromney>

**A Little Less Conversation JXL** by L

00:00

Sponsored Links

**Music Videos Online**  
Naomi Campbell Gets Thrillicious.  
Game Day '08. Watch & See.  
Thrillicious.com

**Pimp Your Profile Free**  
Free Layouts, Backgrounds & Glitter  
Profile. 100% Free. Download Now!  
MySpace.CoolFetti.com

**Boa Ringtones**  
Send Complimentary Ringtones to  
your cell.  
BestTones4U.net

**Gospel M**  
Free to Join. 100  
Beautiful Chr  
www.lovear

User Shortcuts:

People

Search

[Home](#) | [Browse](#) | [Search](#) | [Invite](#) | [Film](#) | [Mail](#) | [Blogs](#) | [Favorites](#) | [Forum](#) | [Groups](#) | [Events](#) | [MySpace TV](#) | [Music](#) | [Co](#)

**Mike Huckabee**



"Please visit:  
myspace.com/mikehuckabeeforpresident!"

Male  
52 years old  
Des Moines, Iowa  
United States

Last Login: 9/4/2007

View My: [Pics](#) | [Videos](#)



**Mike Huckabee's Latest Blog Entry** [9]

[[View All Blog Entries](#)]

**Mike Huckabee's Blurbs**

About me:

Who I'd like to meet:

**Mike Huckabee's Friend Space**

Mike Huckabee has 71 friends.

Contacting Mike Huckabee	
Send Message	Forward to Friend
Add to Friends	Add to Favorites
IM / Call	Block User
Add to Group	Rank User

**MySpace URL:**  
<http://www.myspace.com/mikehuckabee>

Mike Huckabee's Details	
<b>Status:</b>	Married
<b>Here for:</b>	Networking, Friends
<b>Orientation:</b>	Straight
<b>Hometown:</b>	Hope, Arkansas
<b>Body type:</b>	Slim / Slender
<b>Ethnicity:</b>	White / Caucasian
<b>Religion:</b>	Christian - other
<b>Zodiac Sign:</b>	Virgo
<b>Smoke / Drink:</b>	No / No
<b>Children:</b>	Proud parent
<b>Education:</b>	College graduate
<b>Occupation:</b>	Republican Presidential Candidate

**Arkansans For Huckabee**



**California For Huckabee**



Online Now!

**Team Huckabee Atlanta**



**Georgians for Huckabee**



**Louisiana for Huckabee**

**Mainers for Mike!**



User Shortcuts: [dropdown] | People [dropdown] Search  
 Home | Browse | Search | Invite | Film | Mail | Blogs | Favorites | Forum | Groups | Events | MySpace TV | Music | Cor

### Ron Paul 2008



"Hope for America - RonPaul2008.Com"

Male  
 72 years old  
 Texas  
 United States

Online Now!

Last Login: 2/4/2008

Mood: busy 😊  
 View My: [Pics](#) | [Videos](#)

Contacting Ron Paul 2008	
Send Message	Forward to Friend
Add to Friends	Add to Favorites
IM / Call	Block User
Add to Group	Rank User

MySpace URL:  
<http://www.myspace.com/ronpaul2008>

Ron Paul 2008's Interests	
General	I really enjoy bicycling, as I try to ride as many as 10-15 miles a day when time permits. I love to ride my bike in the mountains of Colorado. I also enjoy gardening, and I tend to my tomatoes and roses when I am at home in Texas. I love the water and boating, and the Texas Gulf Coast provides a

## Ron Paul 2008 is in Louisiana cam

[Ron Paul 2008's Latest Blog Entry](#) [Subscribe to this Bl

Ron Will Win - We Must Go Door To Door All Over America To NOW Until November ([view more](#))

Ron Paul Rocks the MTV/MySpace Closing Arguments and Wir Watch His Segments Here ([view more](#))

RP's Upcoming Book, The Revolution: A Manifesto is 13 on Ar List - Please Donate ([view more](#))

The American Conservative magazine Endorses Ron Paul ([vi](#)

Ron Paul at University of Minnesota Monday, Feb. 4 @ 7p.m. UPDATE!!!! ([view more](#))

[[View All Blog Entries](#)]

### Ron Paul 2008's Blurbs

#### About me:

I am proud to say that I am the leading advocate for freedor capital. As a member of the U.S. House of Representatives, I limited constitutional government, low taxes, free markets, a sound monetary policies. I am also known among my congre and constituents for my consistent voting record. I have nev legislation unless the proposed measure is expressly authoriz Constitution. In the words of former Treasury Secretary Willi the "one exception to the Gang of 535" on Capitol Hill.

To visit the official Ron Paul website, please visit [RonPaul20](#)  
 To learn more about Ron Paul, please visit [RonPaul2008.Cc](#)  
 To learn more about the issues, please visit [RonPaul2008.C](#)  
 To Get Involved, please visit [RonPaul2008.Com/Get-Inv](#)  
 To Donate, please go to: [RonPaul2008.Com/Donate](#)



# Exhibit KK

**Terms & Conditions****MySpace.com Terms of Use Agreement**

April 11, 2007

MySpace.com is a social networking service that allows Members to create unique personal profiles online in order to find and communicate with old and new friends. The services offered by MySpace.com ("Myspace.com" or "we") include the MySpace.com website (the "MySpace Website"), the MySpace.com Internet messaging service, and any other features, content, or applications offered from time to time by MySpace.com in connection with the MySpace Website (collectively, the "MySpace Services"). The MySpace Services are hosted in the U.S.

This Terms of Use Agreement ("Agreement") sets forth the legally binding terms for your use of the MySpace Services. By using the MySpace Services, you agree to be bound by this Agreement, whether you are a "Visitor" (which means that you simply browse the MySpace Website) or you are a "Member" (which means that you have registered with Myspace.com). The term "User" refers to a Visitor or a Member. You are only authorized to use the MySpace Services (regardless of whether your access or use is intended) if you agree to abide by all applicable laws and to this Agreement. Please read this Agreement carefully and save it. If you do not agree with it, you should leave the MySpace Website and discontinue use of the MySpace Services immediately. If you wish to become a Member, communicate with other Members and make use of the MySpace Services, you must read this Agreement and indicate your acceptance during the Registration process.

This Agreement includes MySpace.com's policy for acceptable use of the MySpace Services and Content posted on the MySpace Website, your rights, obligations and restrictions regarding your use of the MySpace Services and MySpace.com's Privacy Policy. In order to participate in certain MySpace Services, you may be notified that you are required to download software or content and/or agree to additional terms and conditions. Unless otherwise provided by the additional terms and conditions applicable to the MySpace Services in which you choose to participate, those additional terms are hereby incorporated into this Agreement. You may receive a copy of this Agreement by emailing us at: [privacy@MySpace.com](mailto:privacy@MySpace.com), Subject: Terms of Use Agreement.

MySpace.com may modify this Agreement from time to time and such modification shall be effective upon posting by MySpace.com on the MySpace Website. You agree to be bound to any changes to this Agreement when you use the MySpace Services after any such modification is posted. It is therefore important that you review this Agreement regularly to ensure you are updated as to any changes.

Please choose carefully the information you post on MySpace.com and that you provide to other Users. Your MySpace.com profile may not include the following items: telephone numbers, street addresses, last names, and any photographs containing nudity, or obscene,

lewd, excessively violent, harassing, sexually explicit or otherwise objectionable subject matter. Despite this prohibition, information provided by other MySpace.com Members (for instance, in their Profile) may contain inaccurate, inappropriate, offensive or sexually explicit material, products or services, and MySpace.com assumes no responsibility or liability for this material. If you become aware of misuse of the MySpace Services by any person, please contact [MySpace](#) or click on the "Report Inappropriate Content" link at the bottom of any MySpace.com page.

MySpace.com reserves the right, in its sole discretion, to reject, refuse to post or remove any posting (including private messages) by you, or to restrict, suspend, or terminate your access to all or any part of the MySpace Services at any time, for any or no reason, with or without prior notice, and without liability. MySpace expressly reserves the right to remove your profile and/or restrict, suspend, or terminate your access to any part of MySpace Services if MySpace determines, in its sole discretion, that you pose a threat to MySpace and/or its Users.

1. **Eligibility.** Use of and Membership in the MySpace Services is void where prohibited. By using the MySpace Services, you represent and warrant that (a) all registration information you submit is truthful and accurate; (b) you will maintain the accuracy of such information; (c) you are 14 years of age or older; and (d) your use of the MySpace Services does not violate any applicable law or regulation. Your profile may be deleted and your Membership may be terminated without warning, if we believe that you are under 14 years of age.
2. **Term.** This Agreement shall remain in full force and effect while you use the MySpace Services or are a Member. You may terminate your Membership at any time, for any reason, by following the instructions on the Member's Account Settings page. MySpace.com may terminate your Membership at any time, without warning. Even after Membership is terminated, this Agreement will remain in effect, including sections 5-17.
3. **Fees.** You acknowledge that MySpace.com reserves the right to charge for the MySpace Services and to change its fees from time to time in its discretion. If MySpace.com terminates your Membership because you have breached the Agreement, you shall not be entitled to the refund of any unused portion of subscription fees.
4. **Password.** When you sign up to become a Member, you will also be asked to choose a password. You are entirely responsible for maintaining the confidentiality of your password. You agree not to use the account, username, or password of another Member at any time or to disclose your password to any third party. You agree to notify MySpace.com immediately if you suspect any unauthorized use of your account or access to your password. You are solely responsible for any and all use of your account.
5. **Non-commercial Use by Members.** The MySpace Services are for the personal use of Members only and may not be used in connection with any commercial endeavors except those that are specifically endorsed or approved by MySpace.com. Illegal and/or unauthorized use of the MySpace Services, including collecting usernames and/or email addresses of Members by electronic or other means for the purpose of sending unsolicited email or unauthorized framing of or linking to the MySpace Website is prohibited. Commercial advertisements, affiliate links, and other forms of

solicitation may be removed from Member profiles without notice and may result in termination of Membership privileges. Appropriate legal action will be taken for any illegal or unauthorized use of the MySpace Services.

**6. Proprietary Rights in Content on MySpace.com.**

1. MySpace.com does not claim any ownership rights in the text, files, images, photos, video, sounds, musical works, works of authorship, or any other materials (collectively, "Content") that you post to the MySpace Services. After posting your Content to the MySpace Services, you continue to retain all ownership rights in such Content, and you continue to have the right to use your Content in any way you choose. By displaying or publishing ("posting") any Content on or through the MySpace Services, you hereby grant to MySpace.com a limited license to use, modify, publicly perform, publicly display, reproduce, and distribute such Content solely on and through the MySpace Services.

Without this license, MySpace.com would be unable to provide the MySpace Services. For example, without the right to modify Member Content, MySpace.com would not be able to digitally compress music files that Members submit or otherwise format Content to satisfy technical requirements, and without the right to publicly perform Member Content, MySpace.com could not allow Users to listen to music posted by Members. The license you grant to MySpace.com is non-exclusive (meaning you are free to license your Content to anyone else in addition to MySpace.com), fully-paid and royalty-free (meaning that MySpace.com is not required to pay you for the use on the MySpace Services of the Content that you post), sublicensable (so that MySpace.com is able to use its affiliates and subcontractors such as Internet content delivery networks to provide the MySpace Services), and worldwide (because the Internet and the MySpace Services are global in reach). This license will terminate at the time you remove your Content from the MySpace Services. The license does not grant MySpace.com the right to sell your Content, nor does the license grant MySpace.com the right to distribute your Content outside of the MySpace Services.

2. You represent and warrant that: (i) you own the Content posted by you on or through the MySpace Services or otherwise have the right to grant the license set forth in this section, and (ii) the posting of your Content on or through the MySpace Services does not violate the privacy rights, publicity rights, copyrights, contract rights or any other rights of any person. You agree to pay for all royalties, fees, and any other monies owing any person by reason of any Content posted by you to or through the MySpace Services.
3. The MySpace Services contain Content of MySpace.com ("MySpace.com Content"). MySpace.com Content is protected by copyright, trademark, patent, trade secret and other laws, and MySpace.com owns and retains all rights in the MySpace.com Content and the MySpace Services. MySpace.com hereby grants you a limited, revocable, nonsublicensable license to reproduce and display the MySpace.com Content (excluding any software code) solely for your personal use in connection with viewing the MySpace Website and using the MySpace Services.

4. The MySpace Services contain Content of Users and other MySpace.com licensors. Except for Content posted by you, you may not copy, modify, translate, publish, broadcast, transmit, distribute, perform, display, or sell any Content appearing on or through the MySpace Services.
7. **Content Posted.**
  1. MySpace.com may delete any Content that in the sole judgment of MySpace.com violates this Agreement or which may be offensive, illegal or violate the rights, harm, or threaten the safety of any person. MySpace.com assumes no responsibility for monitoring the MySpace Services for inappropriate Content or conduct. If at any time MySpace.com chooses, in its sole discretion, to monitor the MySpace Services, MySpace.com nonetheless assumes no responsibility for the Content, no obligation to modify or remove any inappropriate Content, and no responsibility for the conduct of the User submitting any such Content.
  2. You are solely responsible for the Content that you post on or through any of the MySpace Services, and any material or information that you transmit to other Members and for your interactions with other Users. MySpace.com does not endorse and has no control over the Content. Content is not necessarily reviewed by MySpace.com prior to posting and does not necessarily reflect the opinions or policies of MySpace.com. MySpace.com makes no warranties, express or implied, as to the Content or to the accuracy and reliability of the Content or any material or information that you transmit to other Members.
8. **Content/Activity Prohibited.** The following is a partial list of the kind of Content that is illegal or prohibited to post on or through the MySpace Services. MySpace.com reserves the right to investigate and take appropriate legal action against anyone who, in MySpace.com's sole discretion, violates this provision, including without limitation, removing the offending communication from the MySpace Services and terminating the Membership of such violators. Prohibited Content includes, but is not limited to Content that, in the sole discretion of MySpace.com:
  1. is patently offensive and promotes racism, bigotry, hatred or physical harm of any kind against any group or individual;
  2. harasses or advocates harassment of another person;
  3. exploits people in a sexual or violent manner;
  4. contains nudity, violence, or offensive subject matter or contains a link to an adult website;
  5. solicits personal information from anyone under 18;
  6. provides any telephone numbers, street addresses, last names, URLs or email addresses;
  7. promotes information that you know is false or misleading or promotes illegal activities or conduct that is abusive, threatening, obscene, defamatory or libelous;
  8. promotes an illegal or unauthorized copy of another person's copyrighted work, such as providing pirated computer programs or links to them, providing information to circumvent manufacture-installed copy-protect devices, or providing pirated music or links to pirated music files;
  9. involves the transmission of "junk mail," "chain letters," or unsolicited mass mailing, instant messaging, "spimming," or "spamming";
  10. contains restricted or password only access pages or hidden pages or images

- (those not linked to or from another accessible page);
11. furthers or promotes any criminal activity or enterprise or provides instructional information about illegal activities including, but not limited to making or buying illegal weapons, violating someone's privacy, or providing or creating computer viruses;
  12. solicits passwords or personal identifying information for commercial or unlawful purposes from other Users;
  13. involves commercial activities and/or sales without our prior written consent such as contests, sweepstakes, barter, advertising, or pyramid schemes;
  14. includes a photograph of another person that you have posted without that person's consent; or
  15. for band and filmmaker profiles, uses sexually suggestive imagery or any other unfair, misleading or deceptive Content intended to draw traffic to the profile.

The following is a partial list of the kind of activity that is illegal or prohibited on the MySpace Website and through your use of the MySpace Services. MySpace.com reserves the right to investigate and take appropriate legal action against anyone who, in MySpace.com's sole discretion, violates this provision, including without limitation, reporting you to law enforcement authorities. Prohibited activity includes, but is not limited to:

1. criminal or tortious activity, including child pornography, fraud, trafficking in obscene material, drug dealing, gambling, harassment, stalking, spamming, spimming, sending of viruses or other harmful files, copyright infringement, patent infringement, or theft of trade secrets;
2. advertising to, or solicitation of, any Member to buy or sell any products or services through the MySpace Services. You may not transmit any chain letters or junk email to other Members. It is also a violation of these rules to use any information obtained from the MySpace Services in order to contact, advertise to, solicit, or sell to any Member without their prior explicit consent. In order to protect our Members from such advertising or solicitation, MySpace.com reserves the right to restrict the number of emails which a Member may send to other Members in any 24-hour period to a number which MySpace.com deems appropriate in its sole discretion. If you breach this Agreement and send unsolicited bulk email, instant messages or other unsolicited communications of any kind through the MySpace Services, you acknowledge that you will have caused substantial harm to MySpace.com, but that the amount of such harm would be extremely difficult to ascertain. As a reasonable estimation of such harm, you agree to pay MySpace.com \$50 for each such unsolicited email or other unsolicited communication you send through the MySpace Services;
3. covering or obscuring the banner advertisements on your personal profile page, or any MySpace.com page via HTML/CSS or any other means;
4. any automated use of the system, such as using scripts to add friends or send comments or messages;
5. interfering with, disrupting, or creating an undue burden on the MySpace Services or the networks or services connected to the MySpace Services;
6. attempting to impersonate another Member or person;
7. for band profiles, copying the code for your MySpace Player and embedding it

- into other profiles or asking other Members to embed it into their profiles;
8. using the account, username, or password of another Member at any time or disclosing your password to any third party or permitting any third party to access your account;
  9. selling or otherwise transferring your profile;
  10. using any information obtained from the MySpace Services in order to harass, abuse, or harm another person;
  11. displaying an advertisement on your profile, or accepting payment or anything of value from a third person in exchange for your performing any commercial activity on or through the MySpace Services on behalf of that person, such as placing commercial content on your profile, posting blogs or bulletins with a commercial purpose, selecting a profile with a commercial purpose as one of your "Top 8" friends, or sending private messages with a commercial purpose; or
  12. using the MySpace Services in a manner inconsistent with any and all applicable laws and regulations.
9. **Copyright Policy.** You may not post, modify, distribute, or reproduce in any way any copyrighted material, trademarks, or other proprietary information belonging to others without obtaining the prior written consent of the owner of such proprietary rights. It is the policy of MySpace.com to terminate Membership privileges of any Member who repeatedly infringes the copyright rights of others upon receipt of proper notification to MySpace.com by the copyright owner or the copyright owner's legal agent. Without limiting the foregoing, if you believe that your work has been copied and posted on the MySpace Services in a way that constitutes copyright infringement, please provide our Copyright Agent with the following information: (i) an electronic or physical signature of the person authorized to act on behalf of the owner of the copyright interest; (ii) a description of the copyrighted work that you claim has been infringed; (iii) a description of where the material that you claim is infringing is located on the MySpace Services; (iv) your address, telephone number, and email address; (v) a written statement by you that you have a good faith belief that the disputed use is not authorized by the copyright owner, its agent, or the law; (vi) a statement by you, made under penalty of perjury, that the above information in your notice is accurate and that you are the copyright owner or authorized to act on the copyright owner's behalf. MySpace.com's Copyright Agent for notice of claims of copyright infringement can be reached as follows: Copyright Agent, MySpace, Inc., 8391 Beverly Blvd., #349, Los Angeles, CA 90048; Facsimile: (310) 969-7394; Attn: Copyright Agent; and email: [copyrightagent@myspace.com](mailto:copyrightagent@myspace.com).
10. **Member Disputes.** You are solely responsible for your interactions with other MySpace.com Members. MySpace.com reserves the right, but has no obligation, to monitor disputes between you and other Members.
11. **Privacy.** Use of the MySpace Services is also governed by our Privacy Policy, which is incorporated into this Agreement by this reference.
12. **Disclaimers.** MySpace.com is not responsible for any incorrect or inaccurate Content posted on the MySpace Website or in connection with the MySpace Services, whether caused by Users of the MySpace Services or by any of the equipment or programming associated with or utilized in the MySpace Services. Profiles created and posted by Members on the MySpace Website may contain links to other websites. MySpace.com is not responsible for the Content, accuracy or opinions expressed on such websites,

and such websites are in no way investigated, monitored or checked for accuracy or completeness by MySpace.com. Inclusion of any linked website on the MySpace Services does not imply approval or endorsement of the linked website by MySpace.com. When you access these third-party sites, you do so at your own risk. MySpace.com takes no responsibility for third party advertisements which are posted on this MySpace Website or through the MySpace Services, nor does it take any responsibility for the goods or services provided by its advertisers. MySpace.com is not responsible for the conduct, whether online or offline, of any User of the MySpace Services. MySpace.com assumes no responsibility for any error, omission, interruption, deletion, defect, delay in operation or transmission, communications line failure, theft or destruction or unauthorized access to, or alteration of, any User or Member communication. MySpace.com is not responsible for any problems or technical malfunction of any telephone network or lines, computer online systems, servers or providers, computer equipment, software, failure of any email or players due to technical problems or traffic congestion on the Internet or on any of the MySpace Services or combination thereof, including any injury or damage to Users or to any person's computer related to or resulting from participation or downloading materials in connection with the MySpace Services. Under no circumstances shall MySpace.com be responsible for any loss or damage, including personal injury or death, resulting from use of the MySpace Services, attendance at a MySpace.com event, from any Content posted on or through the MySpace Services, or from the conduct of any Users of the MySpace Services, whether online or offline. The MySpace Services are provided "AS-IS" and as available and MySpace.com expressly disclaims any warranty of fitness for a particular purpose or non-infringement. MySpace.com cannot guarantee and does not promise any specific results from use of the MySpace Services.

13. **Limitation on Liability.** IN NO EVENT SHALL MYSPACE.COM BE LIABLE TO YOU OR ANY THIRD PARTY FOR ANY INDIRECT, CONSEQUENTIAL, EXEMPLARY, INCIDENTAL, SPECIAL OR PUNITIVE DAMAGES, INCLUDING LOST PROFIT DAMAGES ARISING FROM YOUR USE OF THE SERVICES, EVEN IF MYSPACE.COM HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. NOTWITHSTANDING ANYTHING TO THE CONTRARY CONTAINED HEREIN, MYSPACE.COM'S LIABILITY TO YOU FOR ANY CAUSE WHATSOEVER AND REGARDLESS OF THE FORM OF THE ACTION, WILL AT ALL TIMES BE LIMITED TO THE AMOUNT PAID, IF ANY, BY YOU TO MYSPACE.COM FOR THE MYSPACE SERVICES DURING THE TERM OF MEMBERSHIP.
14. **U.S. Export Controls.** Software available in connection with the MySpace Services (the "Software") is further subject to United States export controls. No Software may be downloaded from the MySpace Services or otherwise exported or re-exported in violation of U.S. export laws. Downloading or using the Software is at your sole risk.
15. **Disputes.** If there is any dispute about or involving the MySpace Services, you agree that the dispute shall be governed by the laws of the State of California, USA, without regard to conflict of law provisions and you agree to exclusive personal jurisdiction and venue in the state and federal courts of the United States located in the State of California, City of Los Angeles. Either MySpace.com or you may demand that any dispute between MySpace.com and you about or involving the MySpace Services must be settled by arbitration utilizing the dispute resolution procedures of the



American Arbitration Association (AAA) in Los Angeles, California, USA, provided that the foregoing shall not prevent MySpace.com from seeking injunctive relief in a court of competent jurisdiction.

16. **Indemnity.** You agree to indemnify and hold MySpace.com, its subsidiaries, and affiliates, and their respective officers, agents, partners and employees, harmless from any loss, liability, claim, or demand, including reasonable attorneys' fees, made by any third party due to or arising out of your use of the MySpace Services in violation of this Agreement and/or arising from a breach of this Agreement and/or any breach of your representations and warranties set forth above and/or if any Content that you post on the MySpace Website or through the MySpace Services causes MySpace.com to be liable to another.
17. **Other.** This Agreement is accepted upon your use of the MySpace Website or any of the MySpace Services and is further affirmed by you becoming a Member. This Agreement constitutes the entire agreement between you and MySpace.com regarding the use of the MySpace Services. The failure of MySpace.com to exercise or enforce any right or provision of this Agreement shall not operate as a waiver of such right or provision. The section titles in this Agreement are for convenience only and have no legal or contractual effect. MySpace.com is a trademark of MySpace, Inc. This Agreement operates to the fullest extent permissible by law. If any provision of this Agreement is unlawful, void or unenforceable, that provision is deemed severable from this Agreement and does not affect the validity and enforceability of any remaining provisions.

Please contact us at: [Contact MySpace](#) with any questions regarding this Agreement.

I HAVE READ THIS AGREEMENT AND AGREE TO ALL OF THE PROVISIONS CONTAINED ABOVE.