Internet Safety Technical Task Force
Technology Submission
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Filter Plus Accountability Software
http://www.covenanteyes.com

ABSTRACT
Covenant Eyes Filter Plus Accountability software provides effective blocking of undesirable sites, plus an easy-to-use record of all Internet activity in a Windows environment. Filter Guardians (including parents) manage age-based sensitivity levels, time controls, white list/black list functions, etc., and are provided a report which uses age-based scoring to highlight those sites which are inappropriate. Emphasis is placed by developers on making the program as difficult as possible to circumvent.

Keywords
Filtering, monitoring, accountability, parental controls

Functional Goals
Please indicate the functional goals of the submitted technology by checking the relevant box(es):
X☐X Limit harmful contact between adults and minors
X☐X Limit harmful contact between minors
X☐X Limit/prevent minors from accessing inappropriate
     content on the Internet
X☐X Limit/prevent minors from creating inappropriate
     content on the Internet
X☐X Limit the availability of illegal content on the
Internet
X☐X Prevent minors from accessing particular sites
without parental consent
X☐X Prevent harassment, unwanted solicitation, and
     bullying of minors on the Internet
X☐X Train minors in proper use of the Internet

PROBLEM INTRODUCTION
Our surveys and feedback suggest that the two main concerns of parents for their children's use of the Internet are 1.) access to pornography and 2.) unsupervised time on the Internet. Because most existing information on these problems is anecdotal, Covenant Eyes, since March of 2000, has collected its own data and feedback on these issues. All age and gender groups surveyed consider pornography to be a problem of major significance "in society" (rated 10 out of 10) and all groups also consider accountability to be highly important for protecting integrity on the Internet. The age group 27 to 35 years (which largely represents parents with young children) express the greatest concern about pornography, and the need for accountability. For young children, blocking of objectionable sites is desirable. However, filters alone do

not provide accountability, because they are generally easily circumvented. When other filters are circumvented, parents are unaware that their children have been exposed to risk.

PROPOSED SOLUTION
Before the advent of Covenant Eyes' software, the ultimate solution to these problems was to place the children's computer in a public place, and only allow them access when a parent is present.

Covenant Eyes becomes, in essence, the public place. Objectionable sites are blocked, plus other Internet access is also monitored, through accountability. Thus, children are trained in disciplined use of the Internet. As they grow older, adjustable age-based sensitivity levels can be progressively changed to allow more and more mature sites to be viewed, and ultimately use only the Covenant Eyes Accountability software.

Covenant Eyes Filter Plus Accountability software developers strive for 1.) ease of use/transparency; 2.) accurate blocking of objectionable sites according to age; 3.) a complete record of times and sites visited; 4.) ease of interpreting that record by parents; and 5.) blocking any means of circumvention. The Filter Plus Accountability software is downloaded from the C.E. website, and installed after download. The program cannot be uninstalled without a password obtained by the Filter Guardian (or other permitted users) from C.E., and all Accountability Partners are notified. All reinstalls and any disruption in service is noted on the reports. There is no limit on the number of Partners assigned to a user. The user must log in to Covenant Eyes in order to access the Internet, and a user can log in on any computer which has Covenant Eyes; the same user can thus use multiple computers with all of the usage shown on one report. IP addresses are also captured so that location of usage can be tracked. No Internet access is available without proper logins.

Covenant Eyes inserts itself into the LSP stack, and is independent of the browser or ISP.

All URL's requested by the user are transmitted to Covenant Eyes servers for analysis. If a requested URL is not in the current month's database, CE's servers download

the site, dynamically analyze it for content, score it for age-appropriateness, check the sensitivity level for the user, and return a Yes or No if the site should be blocked. If the URL is in the current month's database, the current score is used to return a Yes or No. A white-list and black-list generated by the Filter Guardian is also checked before returning a Yes or No. Filter Guardians (and other permitted users as defined by the Filter Guardian) are provided simple means of overriding the blocking, either temporarily or permanently. In addition, all Internet access is blocked if time of use is outside the bounds established by the Filter Guardian.

A report is generated periodically by email to all Accountability Partners, and is also available online at any time. Each site is "scored" for its likelihood of containing mature content. Scoring is age-based, and any sites judged to be inappropriate for an 8-year old are highlighted on the report. The report also includes a "Quick Look" analysis of the entire report, which immediately tells the parent if no further analysis is needed.
For more information see
http://www.covenanteyes.com/help_and_support/article/covenant_eyes_products/?c=85 (provides information on the Filter)
http://www.covenanteyes.com/help_and_support/article/agebased_sensitivity_levels (regards age-based scoring)
http://www.covenanteyes.com/help_and_support/article/take_a_quicklook_at_reports_newest_feature (Quick Look)
http://www.covenanteyes.com/files/documents/report.htm (Sample Report)

ADDITIONAL INFORMATION

Features/Functionality
Covenant Eyes ("CE") Filter Plus Accountability software CE provides effective blocking of objectionable websites, with age-based sensitivity levels chosen by the Filter Guardian.

One feature unique to Covenant Eyes is dynamic scoring, not based on a black list like most filters; Another unique feature is the choice of age-based sensitivity settings.

Other features include Time controls, also set by the Filter Guardian, which determine when and how long the Internet can be used by an individual; other members with different time settings can log in on the same computer, as the software is username based, not computer-based (a user who does not have the Filter, but has a Covenant Eyes Accountability username, can log in on the same computer and not be blocked). Safe lists ("white lists" or black lists) can also be easily created.

Individual protocols, such as Instant Messaging, filesharing, etc., can be selectively blocked for individual users.

In addition, a report is sent or available online providing complete accountability of website tracking, as well as tracking alternate protocols. Monitoring/reporting of all applications using the Internet is currently being beta tested and scheduled for release. CE is browser-independent, and ISP-independent; for instance, on a laptop, the laptop can be taken from a dial-up at home to a wireless hotspot, then to a work environment with a proxied T1 connection, and work seamlessly and transparently through all connections. Patent-pending uninstall notification notifies Accountability Partners when the Uninstall Code is requested, and also notifies of any re-installs. IP tracking of log-in location not only provides location accountability, but also provides theft protection through tracking. Because Internet access is blocked until a valid CE login is made, CE also enables parents to lock down computers from unauthorized Internet access while they are gone. All usage data for reports is stored on CE servers, so cannot be erased or tampered with. A timestamp is recorded for each URL accessed. The software runs in the background, with unnoticeable impact to usability of other software.

A unique feature of Covenant Eyes is that age-based scoring is done dynamically, so that every individual site is scored, including the variables in a URL (URL data following the question mark). Most filters offer a choice of either blocking or allowing entire domains; CE analyzes every site within every domain. Scoring is text-based, both on the URL and the source code; as such, each individual search result, youtube, myspace, eBay, craigslist, etc. site is scored and blocked when the score is higher than the sensitivity level. New anonymous proxy sites are almost always detected by this method. Secure sites are also monitored.

Use Cases
Covenant Eyes Filter Plus Accountability is used primarily by families with children. Parents choose sensitivity levels and time controls appropriate to the ages of their children. Parents often use the Filter as well, but more often choose to use only CE's Accountability Program to provide accountability between spouses. In addition, businesses block staff from accessing non-productive or illegal sites on company computers. Parole officers require sex offenders to use CE's Filter Plus Accountability. Counselors require counselees to use CE for accountability.

Most commonly, parents trust Covenant Eyes to block sites inappropriate for their children, and gradually train them to be accountable, eventually "graduating" them to CE's Accountability-only program (see separate submission).

However, no filter is perfect. So the parents use the Accountability Report to double-check their children's usage, and also as a starting point for discussion on using the Internet with integrity.

Technological Effectiveness

Covenant Eyes solves the problem of parents not knowing what their children are doing on the Internet, plus other use cases mentioned above. It is the only filter providing complete accountability, including complete URL's, timestamps, and age-based blocking,, and is the only program to provide blocking and accountability for each individual site within a domain.

The Covenant Eyes Filter Plus Accountability does not distinguish categories (this is under current development); a site may score high for pornographic content, or it may score high because it is a highly mature dating site. CE software also does not do image analysis, but is text-based. As such, jpg sites are not blocked for most sites; however, fortunately, almost all jpg sites are accessed through a non-jpg browser request, so the jpg's on inappropriate sites are not viewed.

The Covenant Eyes Filter Plus Accountability is not yet available for Mac computers; this is under development.

Testing of each version is done on all platforms, on a wide variety of computers, with all Windows versions. Effectiveness is evaluated and measured in a variety of ways, mostly generated through consumer analysis. Google analytics, metrics on reasons for cancellation (provided by our customer support team of 18 people), and compilations of customer feedback, all are analyzed by the marketing team and management.

Strengths/Weaknesses analysis

Covenant Eyes is the only program that provides age-based blocking, along with complete accountability for each URL, including scoring the variables in a URL, with a detailed record of each complete URL and the time of access. CE is also the most difficult of all programs to circumvent.

One of the greatest strengths of CE comes from the weakness of all filters, in that no filter is perfect. With CE, complete accountability is also provided.

Patent-pending uninstall notification provides Accountability Partners notice that the program is uninstalled, and notification is also given of reinstallation. Patent-pending monitoring of filesharing, ftp, cell phone (under development) and other protocols, as well as monitoring of all applications using the Internet (in beta test), provides accountability for all Internet use. Foreign sites are also scored, and are regularly monitored for anomalies by the scoring team at CE.

The program does not support vmware or linux versions, which may provide some measure of circumvention for this or any other program. Some encrypted protocols also cannot be analyzed for content. Keystroke entries are also not currently monitored. Categories such as gambling, etc. are not distinguished; instead, there is granularity as to age-based sensitivity levels; while the vast majority of users agree with our judgment, some consider that we underblock or overblock. One disadvantage to parents is that all users of a computer, including the parents, must have a login username and password to access the Internet; in most cases, parents acquire an additional username for themselves. While many foreign words are included, the scoring algorithm does not include non-Roman characters, so some sites receive false negative scores (though the scoring team watches for these, and adjusts them after the fact for future scoring).

Because the dynamic scoring process includes our analysis of the actual website, a slight delay (up to 1/2 second for large sites) may be noticed, which some users find annoying; however, since the Filter is used primarily by children, this issue is minimal.

Implementation Requirements

Covenant Eyes Filter Plus Accountability software supports all Windows versions (including fast switching). End users should know how to download software and follow instructions for installation. Filter Guardians may bypass choosing the various settings, but for best use must understand how the settings work (help/support information is provided on our website and Member Center). Accountability Partners (who are not necessarily members) typically learn how to read the Covenant Eyes reports within the first one or two cycles of reporting. Children need not have any expertise, as the software runs in the background.

Technical Standards of Implementation

The Covenant Eyes scoring team relies on feedback from end users to evaluate what is appropriate or inappropriate for various ages. Eight years of experience has enabled the scoring team to score the Internet in agreement with the vast majority of CE end users. Hardcore pornography scores as very inappropriate, and is blocked for all ages. Sites dealing with sexual matters, social networking sites, dating sites, lingerie sites, gambling and violence sites, are scored according to their age-appropriateness.

Reliance and Use of Law and Policy

In all cases, sites which indicate compliance with 18 U.S.C. 2257 Record-Keeping Requirements for ages of porn stars are considered inappropriate for all ages.

Viability for Domestic and International Use

Covenant Eyes Filter Plus Accountability software is in use in 108 countries and all 50 states.

Effectiveness to Date

The effectiveness of the Covenant Eyes Program can be best shown by the words of others. A Google search on the phrase "covenant eyes filter" (in quotation marks) reveals more than 29,000 hits; reading the content line on that search shows testimonials of a wide variety of other

sources. In addition, a search on "internet accountability" shows Covenant Eyes as the number one hit out of more than 600,0000. Finally, we get testimonials every day that praise the accuracy and flexibility of the program.

Failures have come in the sense that some people, children included, go on viewing pornography at friends' houses, or even at the library.

EXPERTISE
CE's programming staff includes 4 computer engineers (B.S. engineering), three programming technicians, and a staff of 4 web developers, plus clerical support staff. We are currently advertising for an additional engineer. Our CEO has started more than 20 successful companies. Our CFO is a former bank president. Our COO is a former project developer for EDS. Our CTO is a computer engineer, formerly with IBM. Our V.P. of Marketing has been in marketing for nearly 30 years.

Our clients include businesses, churches, ministries, and schools. However, approximately 96% of our Filter Plus Accountability members are individual families. Covenant Eyes is also co-branded by organizations, the largest of which is the Eye Promise Program of Promise Keepers.

Other products include the Covenant Eyes Accountability software (a separate template is submitted for this program). Under development are Theft Protection service, warehousing and marketing our 700,000,000+ URL database, and cell phone/PDA monitoring.

COMPANY OVERVIEW
Covenant Eyes pioneered Internet accountability when, in 2000, CEO/President Ronald DeHaas desired a means of providing (theretofore unavailable) accountability for his own sons. He enlisted the help of Windows developers to develop the program, with the specifications that the software would provide complete accountability and be as non-circumventable as possible. Since then, Covenant Eyes has experienced at least 44% growth each year. In 2008 so far, CE has had 56% growth over last year. Other owners of the company are Collin Rose (a tele-communications expert and CEO of a telephone/ISP company), Lynn McClurg (marketing VP with nearly 30 years marketing experience), and Scott Hammersley, VP of technology and holds a B.S. in Computer Engineering from the University of Michigan).

The Filter version of Covenant Eyes took three years to develop because of the dynamic scoring aspect of the program. It was beta-tested for one year, and finally released in July of 2007.

Original capital for the corporation was provided by CEO Ronald DeHaas, whose $700,000+ investment paid expenses of the company until it became independently able to carry expenses in 2002. Current year revenue is anticipated to be approximately four million dollars.

Covenant Eyes is a mature and profitable company with nearly 6000 Filter Plus Accountability users, and 50,000 Accountability-only users.

BUSINESS MODEL OVERVIEW
The goal of Covenant Eyes is to provide Internet safety and integrity to anyone and everyone. There really is nobody who should not be accountable on the Internet, and young children should be protected by a filter. As such, we do not want cost to be a factor. Of course, we must pay our staff and other expenses. But the minimal cost can be afforded by almost everybody, and for those who cannot afford to pay anything at all, we have a "Hardship Program" that is available for the asking, with no questions asked. The Hardship Program provides the software free of charge for renewable three-month periods. For those who can afford it, the cost of the Covenant Eyes Filter Plus Accountability software is $9.49 per month or $99.99 per year, with significant reductions for additional users. There is no charge for Accountability Partners who are not members, and there is no charge for upgrades or for adding the software to additional computers used by the member.

MORE INFORMATION
More information is available at our website, www.covenanteyes.com. An extensive Help and Support Center is available on that site. Readers are also encouraged to do a Google search on "covenant eyes" and read testimonials and information available in the search results.

CONTACT INFORMATION
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CERTIFICATION
 I certify that I have read and agree to the terms of the Internet Safety Technical Task Force Intellectual Property Policy.