



Benchmarking of parental control tools for the online protection of children

1st testing cycle Report Executive Summary

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Prepared by: Cybion Srl and Stiftung Digitale Chancen, coordinated by Innova SpA (hereafter named as “the Consortium”)

NOTICE

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Executive Summary

This report contains the results of the study - Benchmarking of parental control tools for the online protection of children - SIP-Bench III. The study was commissioned by the European Commission, Directorate General for Communications Networks, Content and Technology, in the framework of the Safer Internet Programme, to Cybion Srl and Stiftung Digitale Chancen, under the coordination of Innova SpA. It is the first out of 4 reports that will be published on an eight-month basis.

The report aims to guide the end-users (notably parents) in an easy and comprehensive way through the assorted range of parental control tools currently available on the market in Europe.

In order to achieve this, a comparative experts' assessment of parental control tools was carried out. This process is vendor / supplier independent. 25 parental control tools were tested in the 1st testing cycle. The results of the study are available online through a searchable database at: www.sipbench.eu.

PARENTAL CONTROL TOOLS IN A NUTSHELL

Parental control tools enable parents to carry out three types of actions to protect their children:

- Customisation of web content filtering: allows children / teenagers to view content according to a set of specific criteria defined during the configuration of the tool. Parents may ask the tool to block or show content indicating the topic, a list of URLs or some specific keywords;
- Blocking the usage: allows blocking the usage of a protocol / application notwithstanding the inappropriateness of the content (e.g. the tool might prevent the children to watch streaming through Media Player);
- Monitoring the application/protocol usage and the web content accessed: to be reported on if and/or when and/or for how long accessing a specific websites, entering/using a specific application/protocol.

A precise methodology was used to perform the benchmarking study. The selection of tools was carried out with the aim to address parents' needs in terms of devices (PCs, mobile phones, tablets and game consoles), operating systems (Windows, Mac, Linux), languages, type of solutions (default systems like Microsoft Vista parental control, client software, ISP solutions).

The following parameters were identified according to which the selected tools were tested:

- **The functionality test** which aims at assessing whether the tool has the functions required to satisfy parents' needs;
- **The effectiveness test** which aims at assessing whether a tool is able to block or not a specific harmful page and if at the same time it is able to allow visualizing non-harmful pages;
- **The security test** which aims at verifying whether the tools prevent the user from by-passing or disabling the filter through a specific set of actions;
- **The usability test** which aims at assessing whether a tool is easy to install, configure and also to use.

PC parental control tools: results

PCs are the most common way to access the Internet. They enable children / teenagers to access Web pages, share experiences and contents through social networks and communicate with people.

Functionality

None of the 13 tested tools reaches the complete functionality coverage. Nine tools are rated under 50 %. The 3 highest scoring products are: PURESIGHT OWL (77 %), NET NANNY (63 %) and TREND MICRO ONLINE GUARDIAN (53 %).

The main findings can be summarized as follows:

- Most of the tools provide parents with a complete set of customization functionalities.
- 11 tools give the possibility to block access to social networks and 10 tools give the possibility to force the user to use the Safe Search functionality of the most common search engines.
- All tools enable parent to block the access specifically to the Internet.
- The majority of the tools are able to block Web based streaming provided by YouTube.
- Most of the tools are able to provide the parent with at least basic report on the users' web activity (visited websites or violations). 4 tools allow remote access to monitoring.
- Some tools present some security weaknesses. The most common is allowing access to a prohibited page through translation site or Google Cache. Few tools can be uninstalled without a password.
- English is the most frequent language whereas the tools' choice is limited for many other European languages.

Effectiveness

In general, tools have low effectiveness. The underblocking rate is higher than 30 % for all tested tools. The overblocking rate is low for some tools but in these cases the underblocking rate is very high.

The main findings can be summarized as follows:

- The tools perform quite similarly with a configuration for the two age classes (≤ 12 and ≥ 13).
- Tools present lower effectiveness on Web 2.0 content. Tools have serious difficulties to deal with user-generated and Web 2.0 content. Concerning the qualitative tests on web 2.0, all the tools fail.
- The adult content is better filtered than the "other" content categories.
- Tools work better on English languages than other languages.

Usability

8 out of 13 tools gain better scores for installation and configuration than for usage. No product score less than 2 points, thus not reaching the threshold of 50 % of 4 points, five products range between 2 and 2.50, seven tools between 2.51 and 3. One product scores in the top area and gains 3 points.

The main findings can be summarised as follows:

- In general, possibilities to customise the tool to one's own needs are poor.
- Only a few products provide additional information about filtering in general and about limitations and restrictions of the filtering procedures.
- About one third of the tools provide a web- or server-based configuration.
- Most tools do not allow appropriate reaction to the alert message for a blocked web site.

Mobile devices parental control tools: results

Smart phones are one of the most trendy device used by children / teenagers (with a majority of teenagers) to access the Internet, to watch video streaming and to communicate with other people using specific applications such as Instant Messaging (e.g. Skype).

Functionality

Tools able to filter the web-pages content have limited functionalities compared to the tools available for PCs.

iPhone and iPad are equipped with an OS-embedded parental control tool. However, an external parental control tool is necessary to filter web-pages browsing according to the content. The other operating system, Android, does not provide an embedded tool for mobile phones or tablets. The only way to filter the Internet is to use an external tool.

Some tools give parents possibility to manage the tool online (from a PC or another mobile device). For some tools, it is possible to manage both the mobile tool and the PC tool (provided that user installed both tools on teenager's devices).

Concerning usage restriction and monitoring, the tools offer very limited functionalities, in particular for Skype or streaming which are very popular among teenagers. Many tools can be easily uninstalled. Many tools consist of a browser with Internet access; often it is easy to use another browser and in this way by-pass the tool. In many cases mobile devices tools are useless.

Effectiveness

Many of the solutions tested are also offered on PC with different interface and functionalities. The effectiveness of the mobile solutions is slightly lower than the one assessed for the similar PC products. The tools have similar results for children and teenagers. All tools perform better on web than on web 2.0. The tools are more positively assessed with reference to English content than with reference to other languages.

Usability

The scores for the mobile tools range between 1.42 and 2.87. The issue that most children consider their mobile phone as a very personal item is not sufficiently reflected in the tools functionalities, i.e. parents need to take the device from their children for monitoring their usage and to access the reporting. The tools tested come as an application that is installed nearly automatically with the download. Therefore, there is no installation process to be handled by the user. The complexity of the configuration process differs: most tools provide a web-based configuration, some tools provide a configuration on the tool and additionally a web-based configuration. As most parental control tools work 'in the background' of the mobile phones, there is less usage than with other computer software.

Game consoles parental control tools: results

Game consoles are meant for gaming and they are not widely used to access the Internet. They are mainly used for online gaming, chatting with other players and downloading content.

Functionality

The functionalities of the tools for consoles are very limited compared to other devices. There are only basic 'enable' or 'disable' functions or irregular working filtering functionalities for websites. The OS-embedded tools control other online activities: online gaming and content downloading/purchasing (apart from a series of offline activities filtering).

All the consoles enable parents to switch off the access to the Internet. None of the tools is able to monitor the online child / teenager activity.

Usability

Compared to parental control tools for PCs, those for game consoles seem to be less known by parents. Nonetheless, they can be useful but the configuration of game consoles can be difficult for parents.

It is a challenge for parents to learn about and to decide on the need to install an additional parental control tool on game console. Tools available for game consoles serve as applications installed nearly automatically with the download. Therefore, there is no installation process to be handled by the user.

As most parental control tools work in the background of the consoles, there is less usage than with other computer software. Nonetheless, it is important that parents can easily handle the alert messages to keep them involved with the products.

The tools do not address the alert message for a blocked web site to children and youth but to adults only. Also no appropriate option for reaction to the alert message is provided.

Below you will find condensed results of the 1st cycle

	Effectiveness	Effectiveness	Usability	Security
	≤ 12	≥ 13		
Astaro Parental Control - Wii	n/a	n/a	1,05	n/a
Bsecure	0,4	0,8	n/a	0
F-Secure Internet Security	1,5	1,5	2,36	1
F-Secure Mobile Security	1,5	1,5	2,24	1
iOS Parental Controls (Mobile)	n/a	n/a	1,89	n/a
JusProg	n/a	1,6	2,16	4
K9 Web Protection	1,1	1,2	2,76	3
K9 Web Protection Browser (Mobile)	1,1	1,2	1,42	1
Mac OS X Parental Controls	0,9	0,8	2,31	2
McAfee All Access	1	1	2,87	0
Microsoft Live Safety - Xbox	n/a	n/a	1,76	n/a
Mobicip Safe Browser	1,1	1,2	1,92	0
Mobiflock	0,3	0,6	2,27	1
Mobile Parental Filter	1,1	1,2	2,17	1
Net Nanny	1,5	1,5	2,76	4
Net Nanny for Android	0,7	0,9	2,56	0
Netintelligence	n/a	n/a	2,47	n/a
Norton Online Family	1,8	1,6	3,12	1
Norton Online Family (Mobile)	1,5	1,5	2,87	0

Optenet PC	0,8	1,1	2,54	1
Panda	1,3	1,1	2,09	0
PureSight Owl	1,7	1,6	2,89	4
Trend Micro Kids Safety - PS3	0,7	0,9	0,89	2
Trend Micro Online Guardian	1,1	1,2	2,76	0
Windows Family Safety	1,5	1,5	2,7	1

For more detailed results available via searchable form, please visit www.sipbench.eu