

An Effective Defense against Intrusive Web Advertising

Viktor Krammer^{1,2}

¹ E-Commerce Competence Center

² Vienna University of Technology

Vienna, Austria

vkrammer@acm.org

ABSTRACT

Intrusive Web advertising such as pop-ups and animated layer ads, which distract the user from reading or navigating through the main content of Web pages, is being perceived as annoying by an increasing number of users. As a response to the growing amount of extraneous content on today's Web and due to the lack of regulations imposed on abusive advertisers the author discusses the pros and cons of ad blocking, explores the different types of Web advertisements currently available and presents Quero, a novel Web browser-based content filter which implements a rule-based classifier that exploits, for example, hints present in the URL in order to classify objects as ads. Additionally, the author conducts a Web study to characterize online ads and measure the effectiveness of his solution against a manual classification. As a result, it is shown that a surprisingly small number of rules is sufficient to block almost all ads on the Web.

Categories and Subject Descriptors

H.3.1 [Information Systems]: Information Storage and Retrieval—*Content Analysis and Indexing*; D.2 [Software]: Software Engineering

General Terms

Algorithms, Design, Measurements, Experimentation

Keywords

E-Commerce, Web Advertising, Ad Blocking, Web Browsers, Internet Explorer

1. RESULTS

Alexa Global Top 500 Web sites

Permission to make digital or hard copies of all or part of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. To copy otherwise, to republish, to post on servers or to redistribute to lists, requires prior specific permission and/or a fee.

Copyright 200X ACM X-XXXXX-XX-X/XX/XX ...\$5.00.

Filter	Type	Count	Ads	Blocked	FP	Precision	Recall
Quero Version 3.4	Pop-ups	29	29	29	0	100.0%	100.0%
	Flash	690	580	690	110	84.1%	100.0%
	Images	15981	1631	1454	52	96.4%	86.0%
	Text	71	71	71	0	100.0%	100.0%
	Overall	16771	2311	2244	162	92.8%	90.1%
Adblock Plus Filter: EasyList 495 rules (2007-06-07)	Pop-ups	29	29	29	0	100.0%	100.0%
	Flash	690	580	316	4	98.7%	53.8%
	Images	15981	1631	1103	151	86.3%	58.4%
	Text	71	71	71	0	100.0%	100.0%
	Overall	16771	2311	1519	155	89.8%	59.0%
Adblock Plus Filter: Dr. Evil 525 rules (2007-06-05)	Pop-ups	29	29	29	0	100.0%	100.0%
	Flash	690	580	204	1	99.5%	35.0%
	Images	15981	1631	792	150	81.1%	39.4%
	Text	71	71	71	0	100.0%	100.0%
	Overall	16771	2311	1096	151	86.2%	40.9%

Table 1: Filter Results and Comparison