

Tracking im Internet sichtbar gemacht

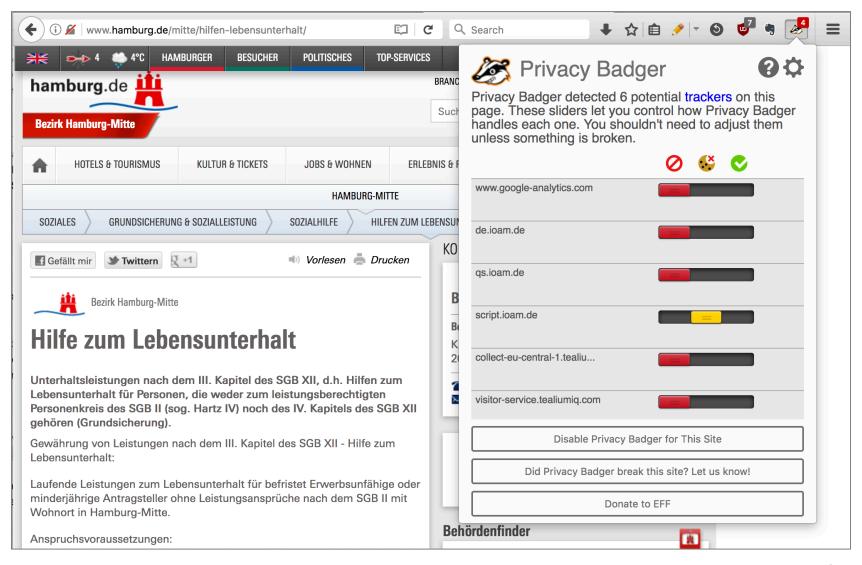
Prof. Dr. Dominik HerrmannOtto-Friedrich-Universität Bamberg

mit Henning Pridöhl (Uni Hamburg), Anne Laubach (Uni Kassel), Max Maaß (TU Darmstadt) und Pascal Wichmann (Uni Hamburg)

https://dhgo.to/track17-slides

Motivation

Wer weiß eigentlich, dass ich mich für Sozialhilfe interessiere?



Existierende Scanning-Dienste konzentrieren sich auf einzelne Seiten

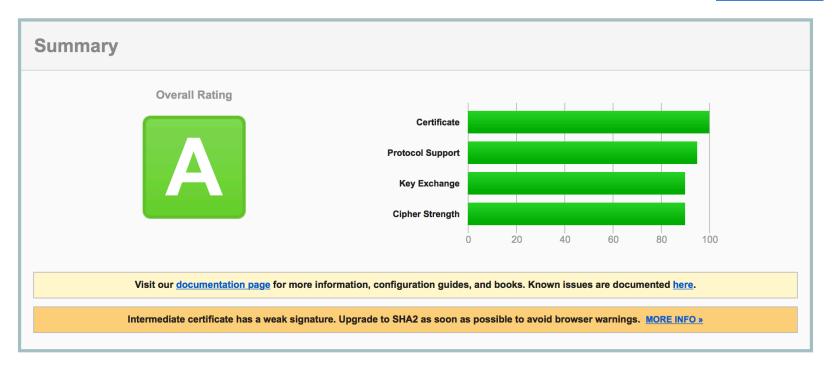


You are here: Home > Projects > SSL Server Test > youtube.com > 216.58.212.142

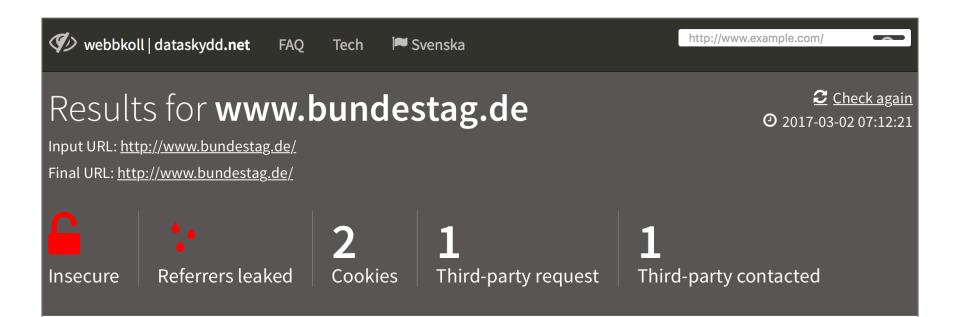
SSL Report: youtube.com (216.58.212.142)

Assessed on: Wed, 01 Mar 2017 20:48:35 UTC | Clear cache

Scan Another



https://www.ssllabs.com/ssltest/



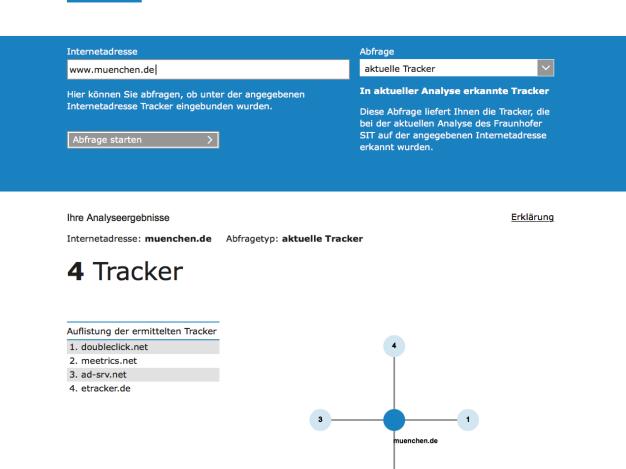
Insecure connection

www.bundestag.de does not use HTTPS by default.

HTTPS encrypts nearly all information sent between a client and a web service. Properly configured, it guarantees three things: To enable HTTPS on a website, a **certificate** for the domain needs to be installed on the web server. To get a certificate that browsers will trust, you need one issued by a trusted certificate authority (otherwise a visitor's browser will show a warning).

https://webbkoll.dataskydd.net/en/





https://www.sit.fraunhofer.de/de/track-your-tracker/

Existierende Scanning-Dienste

richten sich primär an Entwickler und Betreiber verwenden vordefinierte Auswertungsmethoden

PrivacyScore hat anderen Fokus

Ziel: **öffentliche Benchmarks** um Anreize für Betreiber schaffen, den Schutz der Privatsphäre zu verbessern.

Jeder kann (annotierte) Listen von Webseiten hochladen und das Ranking beeinflussen.

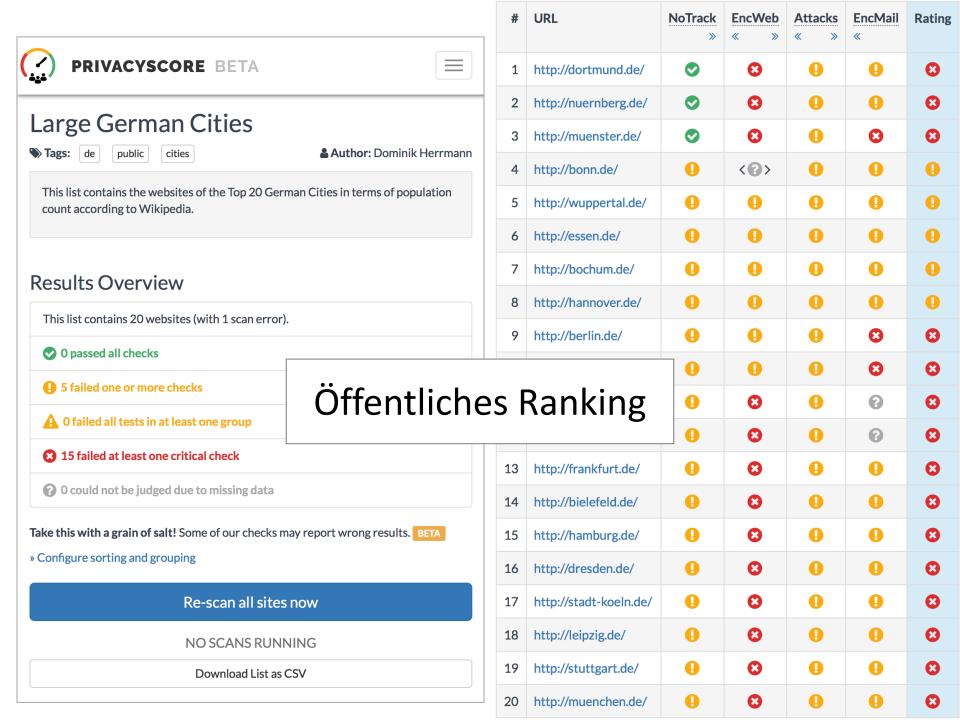
Open Source (GPLv3+) und Open Data

NUTZERDEFINIERTE ATTRIBUTE

Schneiden Städte in Bayern besser ab als in Hamburg?

Korreliert Größe eines Krankenhauses mit Rang seiner Webseite?

Ranking und Detail-Ergebnisse



NoTrack: No Tracking by Website and Third Parties **Attacks: Protection Against Various Attacks** Check if 3rd party embeds are being used reliable Check for unintentional information leaks The site does not disclose internal system information. The site does not use any third parties. reliable Check if embedded 3rd parties are known trackers Check for presence of Content Security Policy The site does not use known tracking or advertising services. The site does not set a Content-Security-Policy (CSP) header. Determine how many cookies the website sets reliable Check for presence of X-Frame-Options unreliable The site sets 1 short-term, 1 long-term, and 0 Flash cookies. The site does not set a X-Frame-Options (XFO) header. Determine how many cookies are set by third parties reliable **Check for secure XSS Protection** unreliable No one else is setting any cookies. The site does not set a X-XSS-Protection header. Check if Google Analytics is being used reliable Check for secure X-Content-Type-Options unreliable The site does not use Google Analytics. The site does not set a X-Content-Type-Options header. Check if Google Analytics has privacy extension enabled reliable Check for privacy-friendly Referrer Policy unreliable Not checking as the site does not use Google Analytics. The site does not set a referrer-policy header. vents the browser from disclosing the URL of the Check whether web server is located in E Without a referrer policy most browsers send a Detail-Ergebnisse All web servers are located in Germany. ontent is retrieved from third parties or when you king on a link. This may disclose sensitive informa-Check whether mail server is located in E All mail servers are located in Germany.

Check whether web and mail servers in same country

The geo-location(s) of the web and mail server(s) are identical.

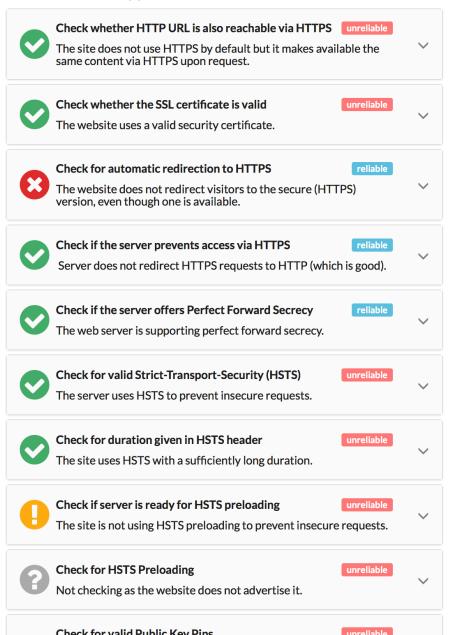
Conditions for passing: Referrer-Policy header is present. Referrer-Policy is set to "no-referrer" (which is the only recommended policy recommended by dataskydd.net in their Webbkoll scan service).

Reliability: unreliable. At the moment we only check for this header in the response that belongs to the first request for the final URL (after following

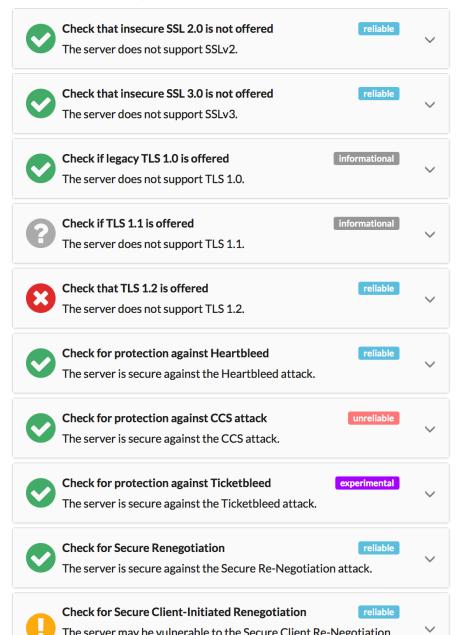
Potential scan errors: We may miss security problems on sites that redirect multiple times. We may also miss security problems on sites that issue multiple times.

potential redirects to other HTTP/HTTPS URLs).

EncWeb: Encryption of Web Traffic



EncMail: Encryption of Mail Traffic



Auswertungen für mehr Transparenz (geplant)

	Bekannte	Third-Party-	Third-Party-
Top 20 Städte	Tracker	Server	Cookies
Hamburg	40	81	49
Berlin	22	37	17
Leipzig	6	10	5
München	5	11	3
Bremen	4	13	3
Dresden	3	8	4
Düsseldorf	2	3	3
Hannover	2	3	1
Köln	2	3	1
Stuttgart	1	7	2

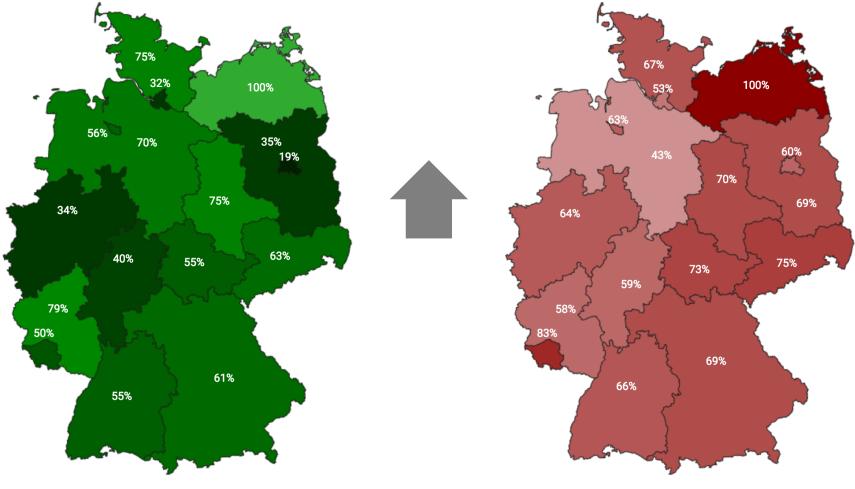
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Hannover	2	3	1
Köln	2	3	1
Stuttgart	1	7	2
Bielefeld	1	2	0
Bonn	1	1	0
Duisburg	0	4	0
Essen	0	2	1
Wuppertal	0	2	0
Münster	0	0	0
Dortmund	0	0	0
Nürnberg	0	0	0
Bochum	0	0	0
Frankfurt	0	0	0

Ursache für hohe Anzahlen: professionelle Umsetzung



	Bekannte	•	Third-Party-			
Top 20 Städte	Tracker	Server Cookies		Web: HTTPS	Mail: STARTTLS	
Hamburg	40	81	49	keine Umleitung	kleinere Probleme	
Berlin	22	37	17	kleinere Probleme	kein TLS 1.2	
Leipzig	6	10	5	keine Umleitung	kleinere Probleme	
München	5	11	3	erzwingt HTTP!	kleinere Probleme	
Bremen	4	13	3	kleinere Probleme	kein TLS 1.2	
Dresden	3	8	4	keine Umleitung	kleinere Probleme	
Düsseldorf	2	3	3	Zertifikatsproblem	Test abgebrochen	
Hannover	2	3	1	kleinere Probleme	kleinere Probleme	
Köln	2	3	1	erzwingt HTTP!	kleinere Probleme	
Stuttgart	1	7	2	keine Umleitung	kleinere Probleme	
Bielefeld	1	2	0	keine Umleitung	kleinere Probleme	
Bonn	1	1	0	Test abgebrochen	kleinere Probleme	
Duisburg	0	4	0	keine Umleitung	Test abgebrochen	
Essen	0	2	1	kleinere Probleme	kleinere Probleme	
Wuppertal	0	2	0	kleinere Probleme	kleinere Probleme	
Münster	0	0	0	kleinere Probleme	kein TLS 1.2	
Dortmund	0	0	0	kein TLS 1.2	kleinere Probleme	
Nürnberg	0	0	0	kein TLS 1.2	kleinere Probleme	
Bochum	0	0	0	kleinere Probleme	kleinere Probleme	
Frankfurt	0	0	0	kleinere Probleme	kleinere Probleme	

#	URL	Land	Traeger	Promotions- recht	NoTrack »	EncWeb « »	Attacks « »	EncMail «	Rating
11	http://www.tuhh.de/	НН	staatlich	ja	•	0	0	•	•
12	http://www.hfmt-hamburg.de/	НН	staatlich	ja	•	0	•	•	0
13	http://www.hft-leipzig.de/	SN	privat	nein	•	0	0	•	•



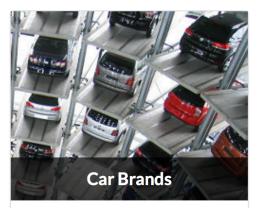
Anteil mit NoTrack





Lists in the Spotlight

We present selected lists of websites that have been added to PrivacyScore. Long lists load quite slowly. Please be patient. IMPROVEMENTS UNDERWAY

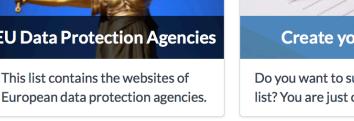


Home pages of 105 major car brands



Home pages of 154 private and public health insurers.







Do you want to submit your own list? You are just one click away!

Bereits vorhandene Listen

Krankenkassen/-versicherungen

Deutsche Hochschulen

Parteien

Behörden

Kommunen

Krankenhäuser

Deutsche Datenschutzbehörden

Global Top 500 (moz.com)

Internetanbieter

Ethische Erwägungen

Rechtliche Beurteilung

Ist der Betrieb von PrivacyScore zulässig?

- Untersuchung von Webseiten ohne Zustimmung der Betreiber
- Rechtliche Bewertung der Untersuchungsergebnisse
- 3 Veröffentlichung der Ergebnisse auf der PrivacyScore-Webseite

PrivacyScore: Tracking im Internet sichtbar gemacht

Transparenz, Aufmerksamkeit und Anreize für Betreiber, Sicherheit und Datenschutz ernst zu nehmen

Funktionen für geschlossene Benutzergruppen geplant

Welche weiteren Prüfungen wünschen Sie sich?

Legen Sie selbst eine Liste an!



PRIVACYSCORE.ORG

	Known Trackers	3 rd Party Servers	1 st Party Cookies	3 rd Party Cookies
Piraten	0	0	0	0
Linke	0	1	0	0
Die PARTEI	0	1	2	0
CDU	1	1	3	0
Grüne	1	4	2	1
SPD	1	6	3	0
FDP	2	7	0	0
AFD	4	22	2	3
CSU	5	10	8	7



PrivacyScore



How well do German party websites protect your privacy? privacyscore.org/list/26 => Top: @piratenpartei & @dielinke.

Flop: @afd_bund & @csu.

5:51 PM - Aug 14, 2017

 \bigcirc 6 \bigcirc 245 \bigcirc 172