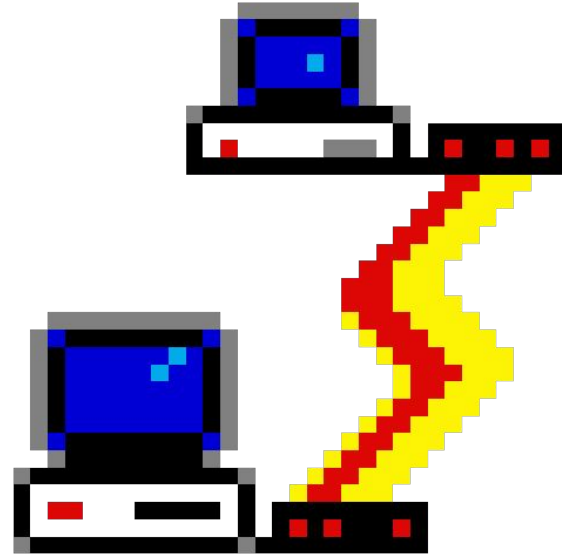
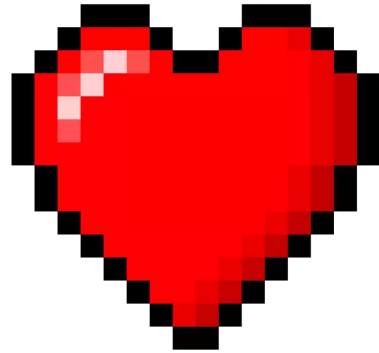


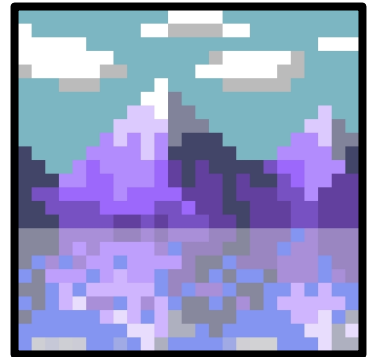
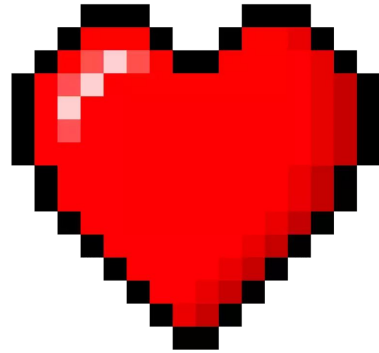
KEEPING YOU SAFE

on the Wild, Wild Web!

Parisa Tabriz
@laparisa



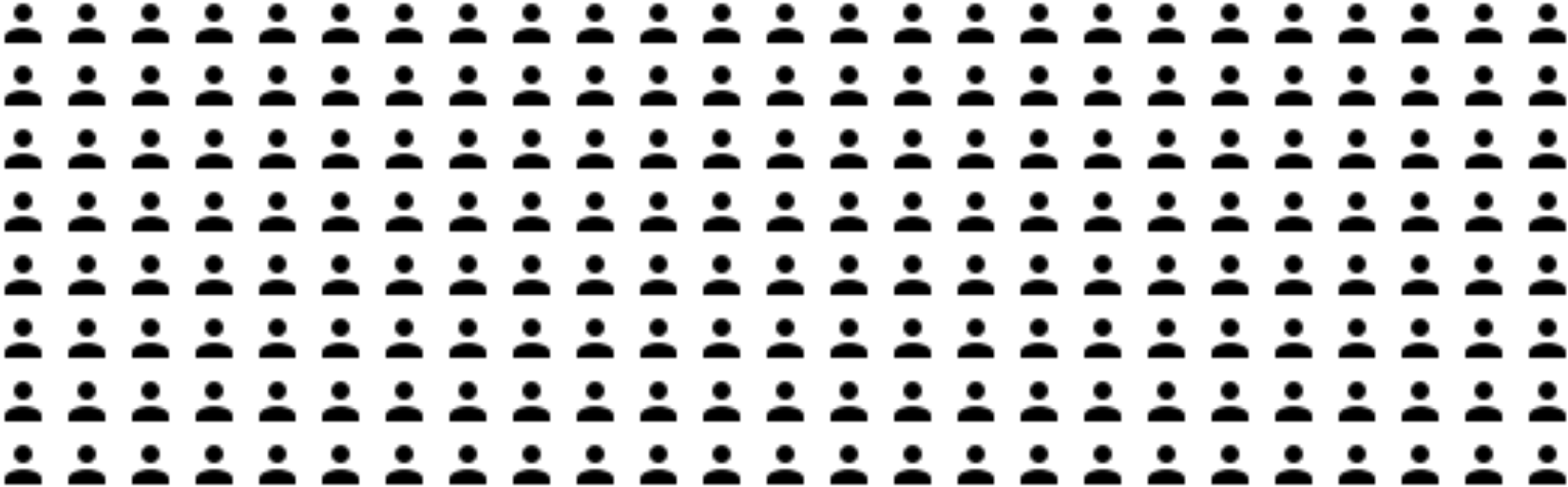




GOOGLE SECURITY

Keep our users and their data safe.

GOOGLE SECURITY





Android Disk
Encryption



Chrome Safe
Browsing



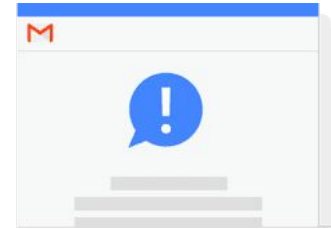
Cloud
Infrastructure



Gmail Spam
Protection



Ads Security



Account
Notifications

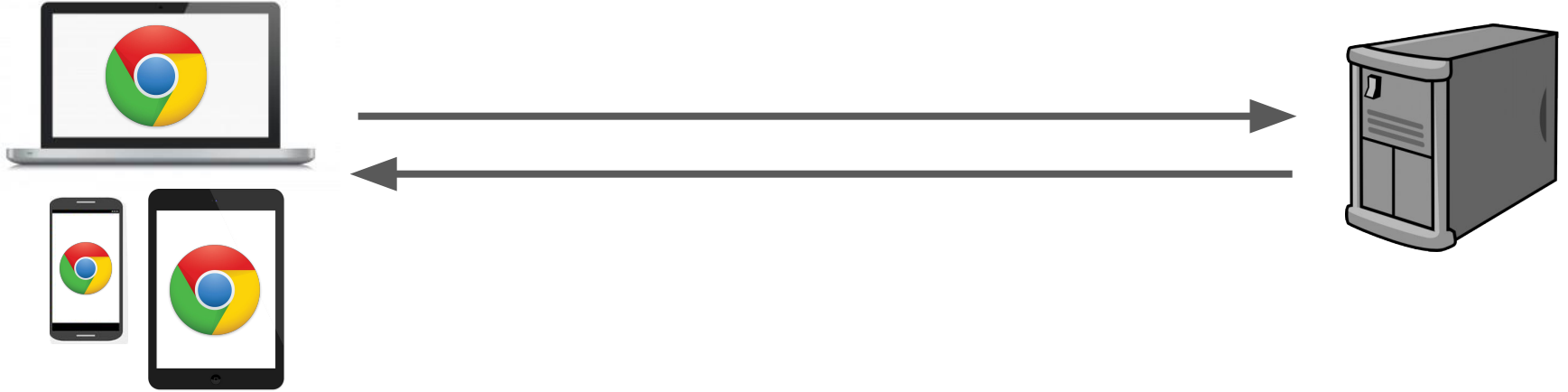
CHROME SECURITY

1. Provide Chrome users with the most secure way to use the web.
2. Make the Internet safer!

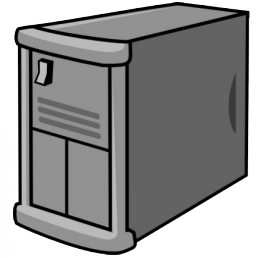
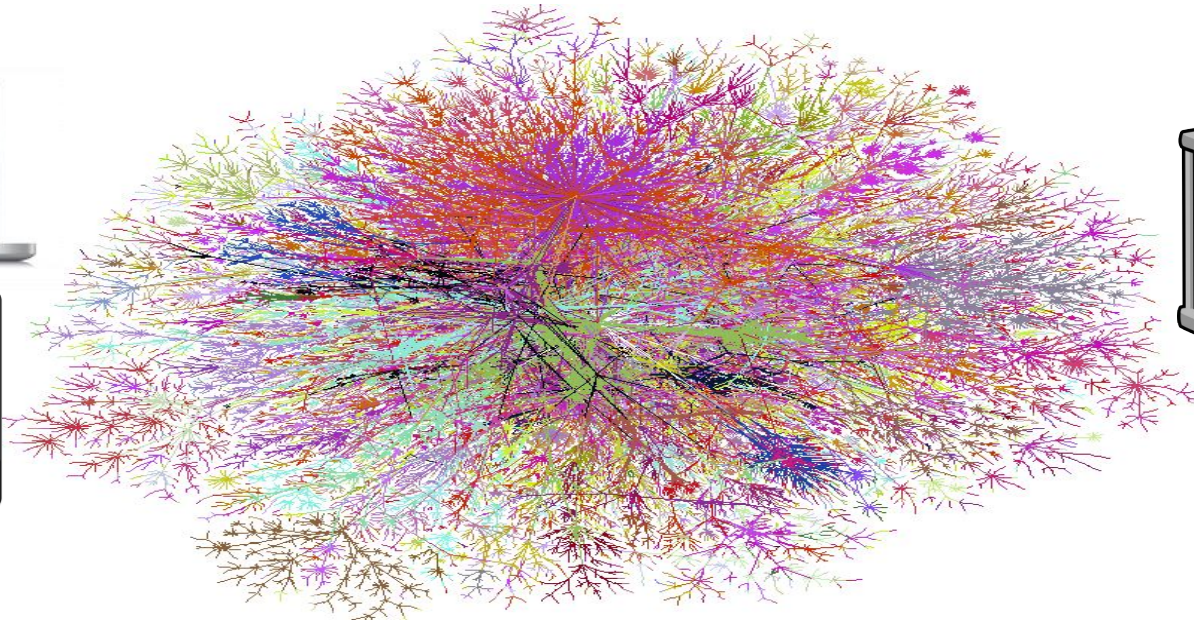
CHROME SECURITY

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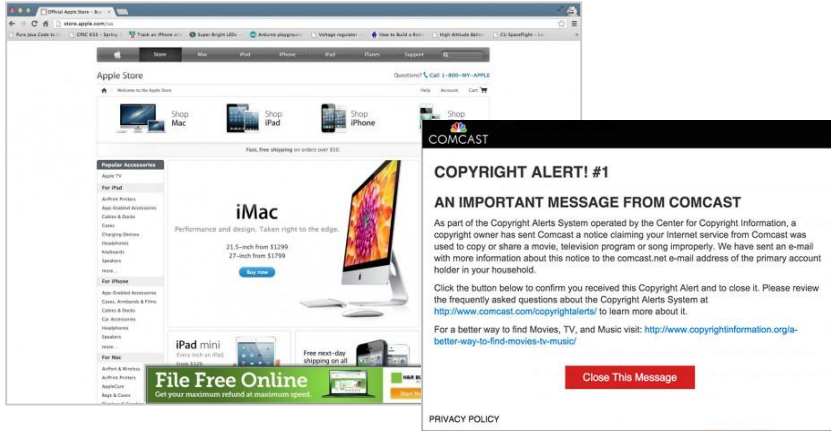
The web feels safe...



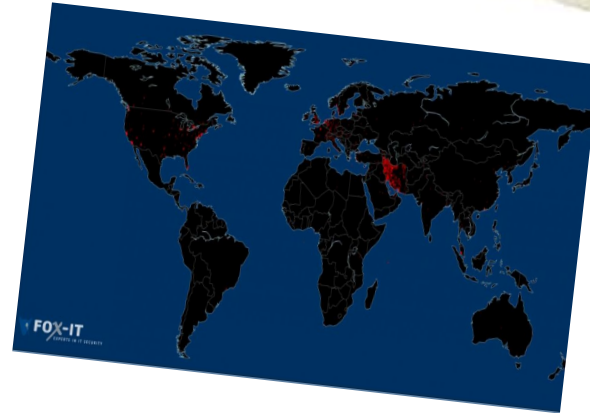
but it's not!



[Internet routing, circa 1998](#)
ADVERSARIES INCLUDED



Internet service providers



Governments



Wall of Sheep



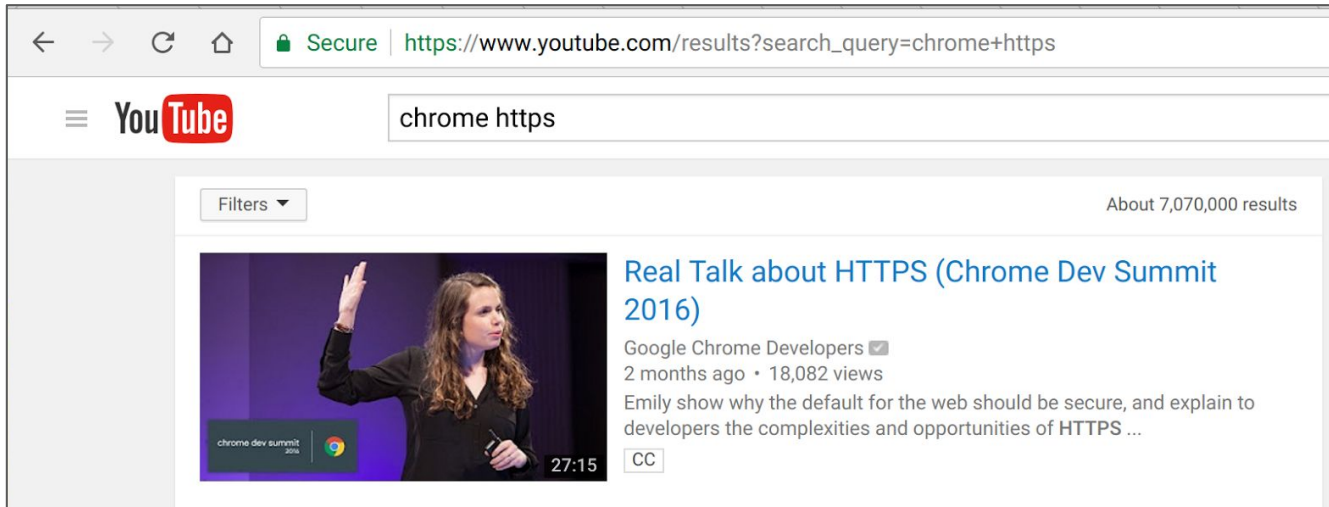
ip	pass	domain_ip	application	MAC ADDR
motorola	*****	ciscom.ru/hackerrussia	HTTP	AA:AA
pamthorpin	*****	myspace.com	HTTP	AA:AA
huanapower	*****	pup.wvst.cox.ne	POP	AA:AA
guyman	*****	www.chroniclesofzeal.co	HTTP	AA:AA
arm_619	*****	myspace.com	HTTP	AA:AA
stealthde5narho	*****	yahoo.com	HTTP	AA:AA
Ben-Lucas	*****	forum.geekquadforums	HTTP	AA:AA
web61p1	*****	62.153.108.10	IMAP	AA:AA
		18.85.170	POP	AA:AA
		veted.com	POP	AA:AA
		47.75.55	HTTP	AA:AA
		pace.com	HTTP	AA:AA
		l.com	SIP (VoIP)	AA:AA
		hone.com	HTTP	AA:AA
		117.154.52	HTTP	AA:AA
		58.169.165	HTTP	AA:AA
		pace.com	HTTP	AA:AA
		arathesis.net	HTTP	AA:AA
		232.140.131	FTP	AA:AA
		reserver.net	POP	AA:AA
		121.132.211	HTTP	AA:AA
		iyus.org	HTTP	AA:AA
		ndernet.org	IRC	AA:AA
		2.161.185	ICQ	AA:AA
		l.net.8	ICQ	AA:AA

MySpace Lover!!!



I am a BIG sheep !!!

HTTPS THE WEB!




A screenshot of a web browser showing a YouTube search results page. The browser's address bar displays "Secure | https://www.youtube.com/results?search_query=chrome+https". The YouTube logo is visible on the left, and the search bar contains the text "chrome https". Below the search bar, there is a "Filters" dropdown menu and a result count of "About 7,070,000 results". The first search result is a video titled "Real Talk about HTTPS (Chrome Dev Summit 2016)" by "Google Chrome Developers". The video thumbnail shows a woman speaking on stage, with a "27:15" duration indicator. The video description reads: "Emily show why the default for the web should be secure, and explain to developers the complexities and opportunities of HTTPS ...". A Creative Commons license icon (CC) is also visible.

← → ↻ 🏠 Secure | https://www.youtube.com/results?search_query=chrome+https

☰ **You** **Tube**

Filters ▾ About 7,070,000 results

 **Real Talk about HTTPS (Chrome Dev Summit 2016)**
Google Chrome Developers ✓
2 months ago • 18,082 views
Emily show why the default for the web should be secure, and explain to developers the complexities and opportunities of HTTPS ...
CC

chrome dev summit 2016 27:15

HTTPS for Top 100 sites

	JAN 2016
Supports HTTPS	39
Defaults HTTPS	24

<https://www.google.com/transparencyreport/https/>

HTTPS for Top 100 sites

	JAN 2016	FEB 2017
Supports HTTPS	39	54
Defaults HTTPS	24	44

<https://www.google.com/transparencyreport/https/>

Host	Site works on HTTPS i	Modern TLS Config i	Default HTTPS i
360.cn	✗	✗	✗
alibaba.com	✗	✗	✗
amazonaws.com	✗	✗	✓
ask.com	✗	✗	✗
ask.fm	✗	✗	✗
bbc.co.uk	✗	✗	✗
bing.com	✓	✗	✗
chinadaily.com.cn	✗	✗	✗
cnn.com	✗	✗	✗
craigslist.org	✓	✗	✗
dailymail.co.uk	✗	✗	✗
dailymotion.com	✓	✗	✗
daum.net	✗	✗	✗
ebay.co.uk	✗	✗	✗
ebay.com	✗	✗	✗
fc2.com	✓	✗	✗
forbes.com	✗	✗	✗
globo.com	✗	✗	✗
gmw.cn	✗	✗	✗
go.com	✗	✗	✗

CHROME SECURITY

1. Provide Chrome users with the most secure way to use the web.
2. Make the Internet safer!



bit.ly/HowIWouldPwnYou

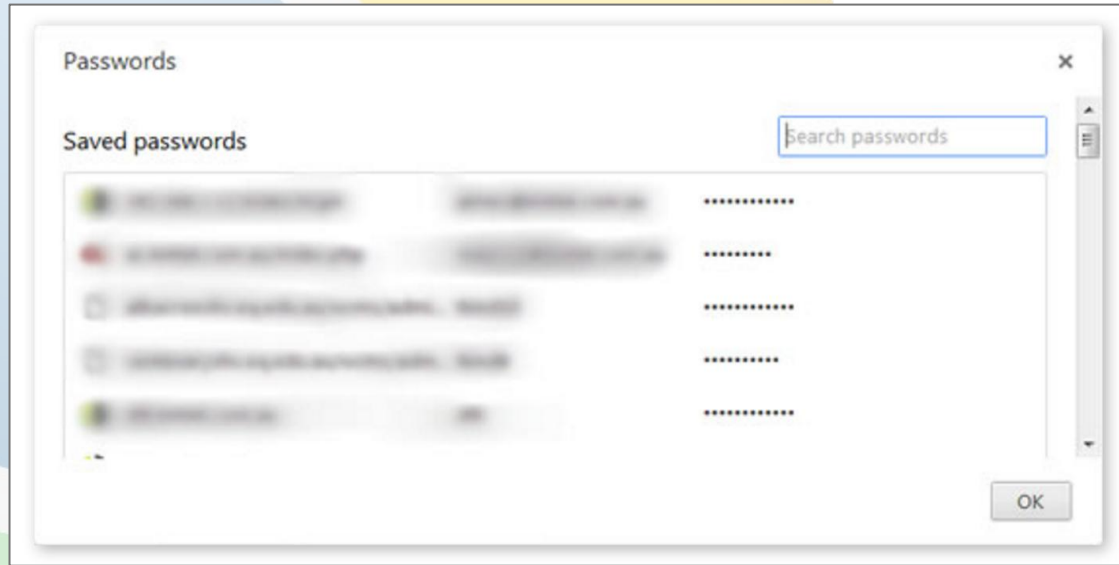
TOP 5 SECURITY TIPS

1. Be leery of unsolicited help and freebies.

TOP 5 SECURITY TIPS

1. Be leery of unsolicited help and freebies.
2. Don't reuse or share same password.

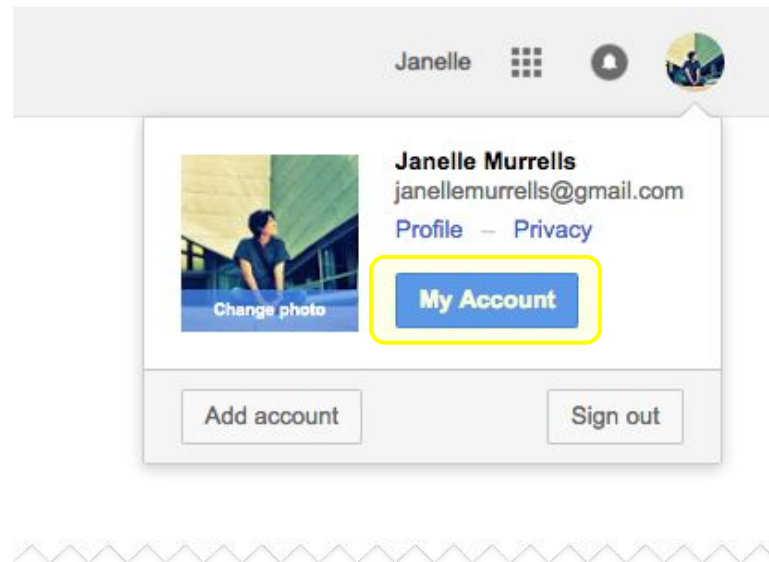
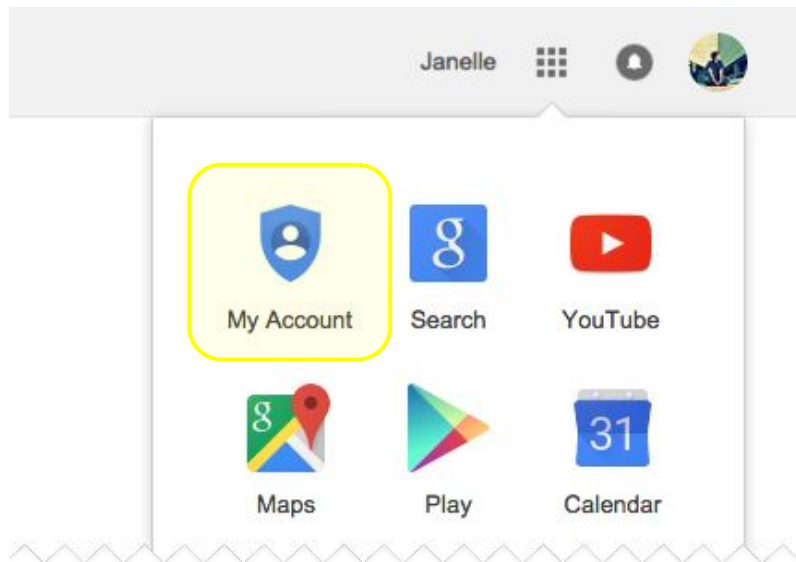
PASSWORD MANAGER



TOP 5 SECURITY TIPS

1. Be leery of unsolicited help and freebies.
2. Don't reuse or share same password.
3. Don't login on shared computers and verify your account security settings.

ACCOUNT SECURITY



2-STEP AUTHENTICATION



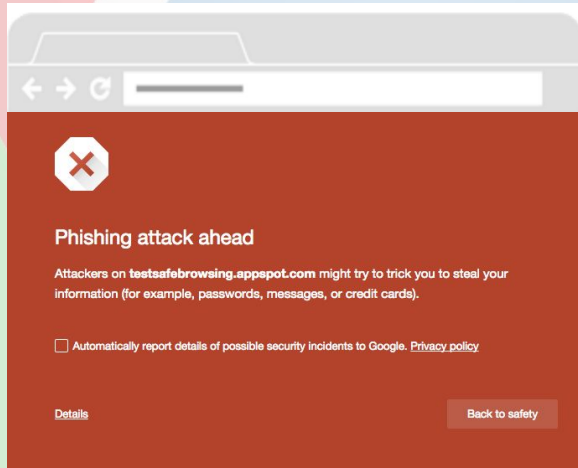
TOP 5 SECURITY TIPS

1. Be leery of unsolicited help and freebies.
2. Don't reuse or share same password.
3. Don't login on shared computers and verify your account security settings.
4. Be mindful of all software or applications you install on your computer and phone.




Google™ Safe Browsing

SAFE BROWSING



A screenshot of a browser window showing a security warning. The address bar is empty. The main content area has a dark red background with a white octagonal icon containing a red 'X' at the top left. Below the icon, the text reads: "Phishing attack ahead", "Attackers on [testsafebrowsing.appspot.com](#) might try to trick you to steal your information (for example, passwords, messages, or credit cards).", and a checkbox labeled "Automatically report details of possible security incidents to Google. [Privacy policy](#)". At the bottom left is a "Details" link, and at the bottom right is a "Back to safety" button.

← → ↻

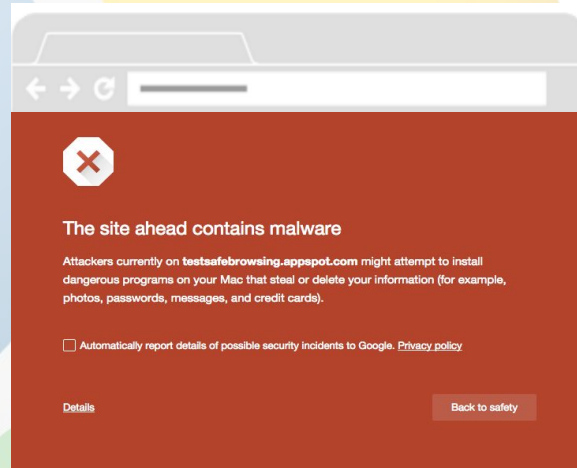


Phishing attack ahead

Attackers on [testsafebrowsing.appspot.com](#) might try to trick you to steal your information (for example, passwords, messages, or credit cards).


Automatically report details of possible security incidents to Google. [Privacy policy](#)

[Details](#) [Back to safety](#)



A screenshot of a browser window showing a security warning. The address bar is empty. The main content area has a dark red background with a white octagonal icon containing a red 'X' at the top left. Below the icon, the text reads: "The site ahead contains malware", "Attackers currently on [testsafebrowsing.appspot.com](#) might attempt to install dangerous programs on your Mac that steal or delete your information (for example, photos, passwords, messages, and credit cards).", and a checkbox labeled "Automatically report details of possible security incidents to Google. [Privacy policy](#)". At the bottom left is a "Details" link, and at the bottom right is a "Back to safety" button.

← → ↻

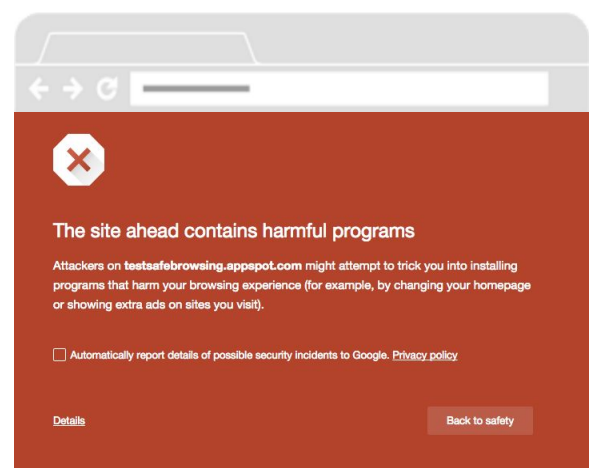


The site ahead contains malware

Attackers currently on [testsafebrowsing.appspot.com](#) might attempt to install dangerous programs on your Mac that steal or delete your information (for example, photos, passwords, messages, and credit cards).


Automatically report details of possible security incidents to Google. [Privacy policy](#)

[Details](#) [Back to safety](#)



A screenshot of a browser window showing a security warning. The address bar is empty. The main content area has a dark red background with a white octagonal icon containing a red 'X' at the top left. Below the icon, the text reads: "The site ahead contains harmful programs", "Attackers on [testsafebrowsing.appspot.com](#) might attempt to trick you into installing programs that harm your browsing experience (for example, by changing your homepage or showing extra ads on sites you visit).", and a checkbox labeled "Automatically report details of possible security incidents to Google. [Privacy policy](#)". At the bottom left is a "Details" link, and at the bottom right is a "Back to safety" button.

← → ↻



The site ahead contains harmful programs

Attackers on [testsafebrowsing.appspot.com](#) might attempt to trick you into installing programs that harm your browsing experience (for example, by changing your homepage or showing extra ads on sites you visit).

Automatically report details of possible security incidents to Google. [Privacy policy](#)

[Details](#) [Back to safety](#)

TOP 5 SECURITY TIPS

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2. Don't reuse or share same password.
3. Don't login on shared computers and verify your account security settings.
4. Be mindful of all software or applications you install on your computer and phone.
5. Keep your programs up to date.

AUTOUPDATE

(No action from you needed!)

THE END. QUESTIONS?

parisa@google.com

parisa@chromium.org

@laparisa

