



Do Fast Websites Get **MORE** Customers?

DOES WEBSITE SPEED MATTER AT ALL?

Who does this apply to?

- ▶ Businesses with websites
 - ▶ E-commerce
 - ▶ Customer relations (product or company information)
- ▶ Website Designers
- ▶ SEO/SEM/Advertising experts

What You'll Discover

- ▶ Speed = more buyers?
- ▶ How Staples increased their online revenue by 10% (without more traffic)
- ▶ How fast?
- ▶ How to improve?
- ▶ Speed = SEO rank?



Who is Siggy?

And why should you listen to him?

Question for the audience

Can you easily increase your revenue by **7%**?

How (Web) Speed Affects Buying Decisions

CAN I INCREASE MY
CONVERSION BY IMPROVING
MY WEBSITE SPEED?

Here are some facts

- ▶ E-commerce giant, Amazon, extensively A/B tested their website in regards to speed and conversions.
- ▶ The results?
 - ▶ 100 millisecond delay
= **1% drop in revenue**

amazon.com[®]

Quick Falcon

Here are some facts

- ▶ Search giant, Google, did an extensive A/B test in the search result numbers, moving from 10 to 20 results per page.
- ▶ The results?

▶ 500 millisecond delay
= **20% drop in traffic**

The Google logo is displayed in its characteristic multi-colored font: 'G' is blue, 'o' is red, 'o' is yellow, 'g' is blue, 'l' is green, and 'e' is red.

Quick Falcon

Here are some facts

- ▶ Glasses Direct hired a company to measure conversion rate in comparison to load time, then improve the load time.
- ▶ The results?

▶ 1 second delay
= **6.7% loss of conversions**



glasses direct

Quick Falcon

Here are some facts

- ▶ WalMart did a huge test on their website in regards to page speed and their conversion from visitor to customer
- ▶ The results?

▶ 1 second improvement
= **2% increase in conversions**



Here are some facts

- ▶ Staples decided to do a massive improvement to their website and measure what would happen
- ▶ The results?

▶ 1 second improvement
= **10% increase in conversions**

STAPLES[®]

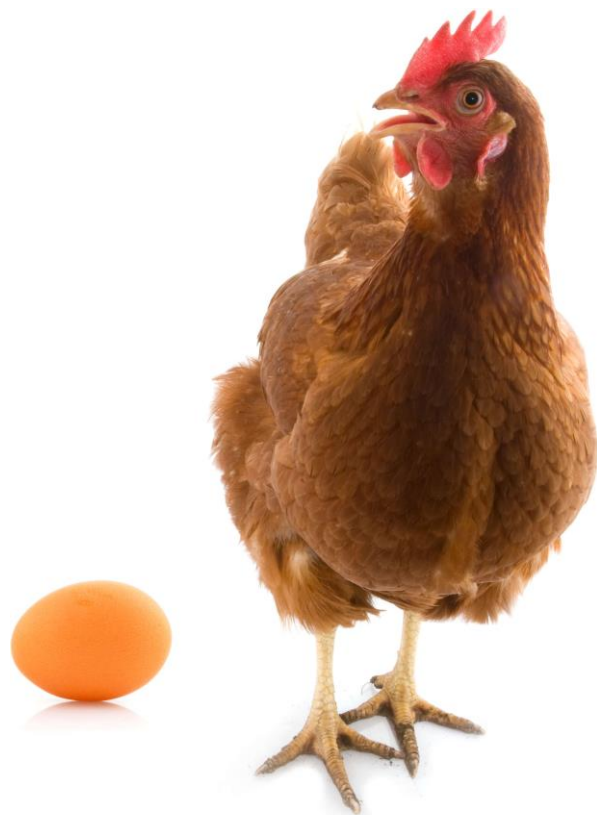
MAKE more HAPPENsm

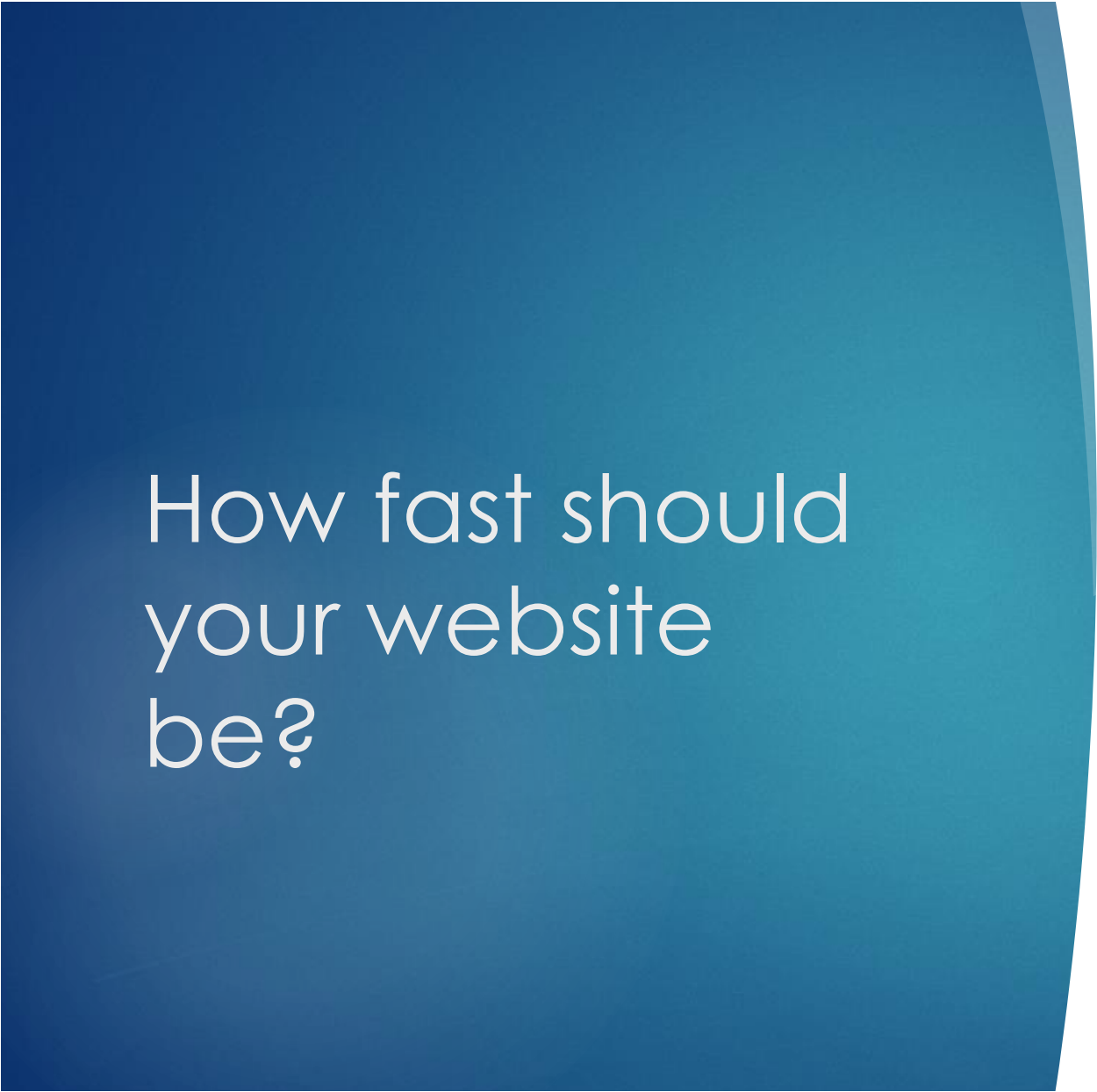
Quick Falcon

Answer for the audience

Yes

Who came first?





How fast should
your website
be?



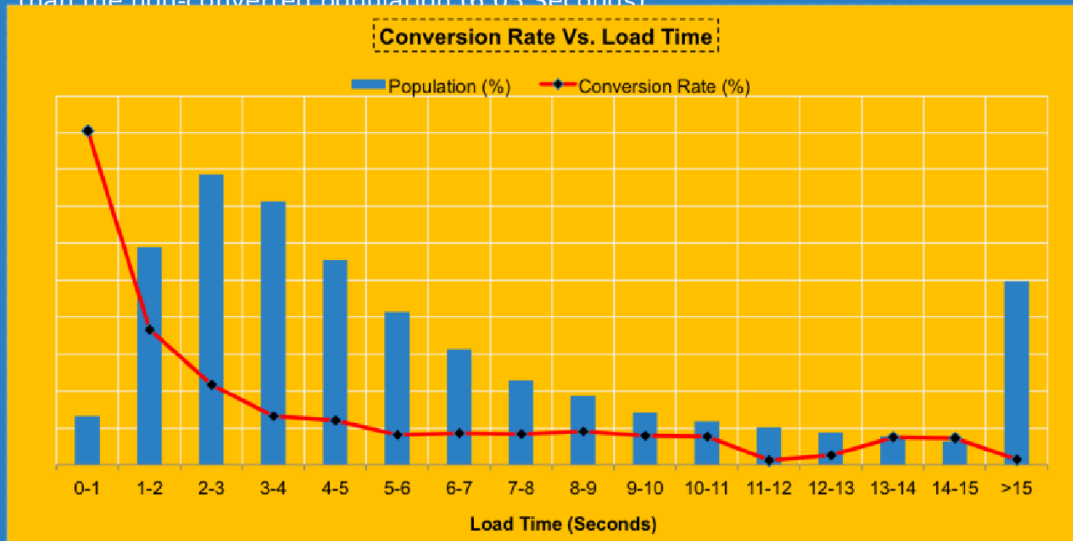
ARE 10 SECONDS A FAST
WEBSITE?

How Fast?

Impact of site performance on overall site conversion

Baseline – 1 in 2 site visits had response time > 4 seconds

- * Sharp decline in conversion rate as average site load time increases from 1 to 4 seconds
- * Overall average site load time is lower for the converted population (3.22 Seconds) than the non-converted population (6.03 Seconds)



Note: Load Time here is the time taken from head of the page to page ready (T_Page)



Quick Falcon

Why does this happen?



How Fast?

- ▶ Best: > 1 second
- ▶ Good: 1-2 seconds
- ▶ Not too bad: 2-3 seconds
- ▶ Fix your site: 3+ seconds

User Perception of Responsiveness



- 0-100ms** Instant perception
- 100-300ms** Small perceptible delay
- 300-1000ms** Machine is working
- 1000+ ms** Likely mental context switch
- 10000+ ms** Task is abandoned

How fast are e-commerce websites?

- ▶ Top 100 e-commerce websites in the world
- ▶ Median main content render: **6.5 seconds**
- ▶ Median load time: **11.4 seconds**

- ▶ Only 12% rendered main content under 3 seconds

How fast are Icelandic websites?

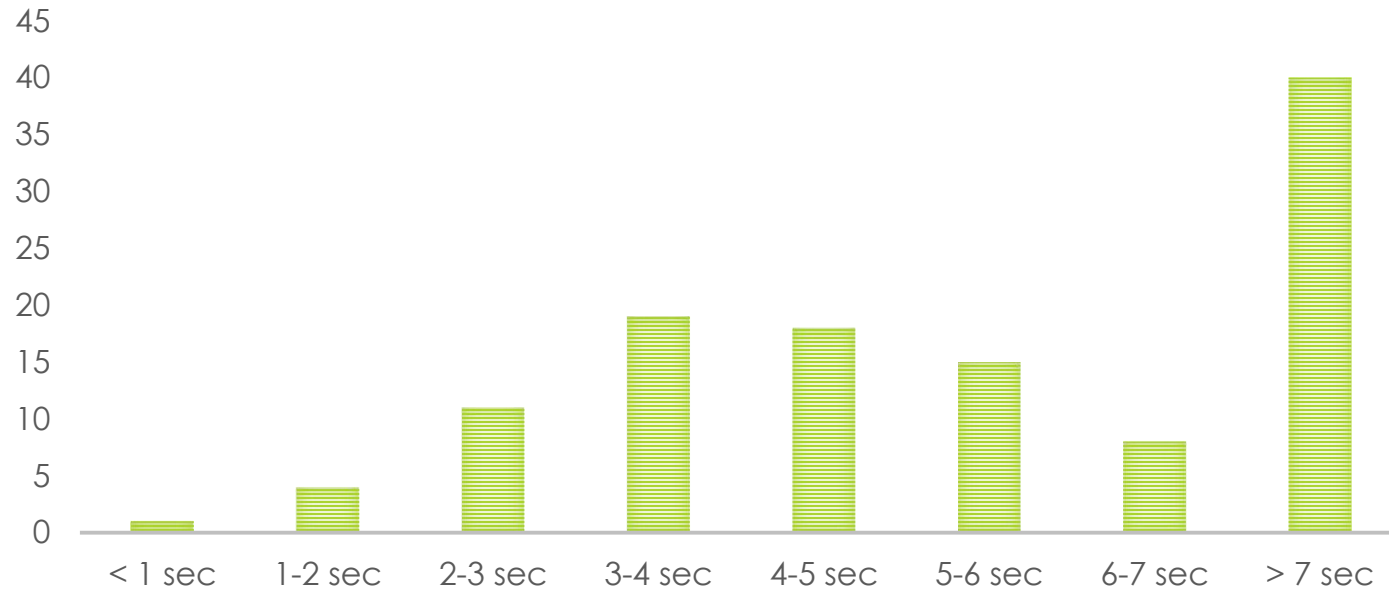
- ▶ Top 120 websites from Modernus
- ▶ Measured using WebPageTest.org
 - ▶ Latest Chrome browser
 - ▶ Cable (1 MB up, 5 MB down)
 - ▶ From Dulles, Virginia

Question to the audience

- ▶ How fast is your website?
- ▶ Does it load under 3 seconds?

How fast are Icelandic websites?

LOAD TIME



What if the webpage is big?

- ▶ Aim for less than 3 seconds load time
 - ▶ What if 3 seconds is impossible?
- ▶ Load items „above the fold“ (on top) first
- ▶ Defer loading images, social media and iframes



How big are
websites?

100 KB?

1 MB?

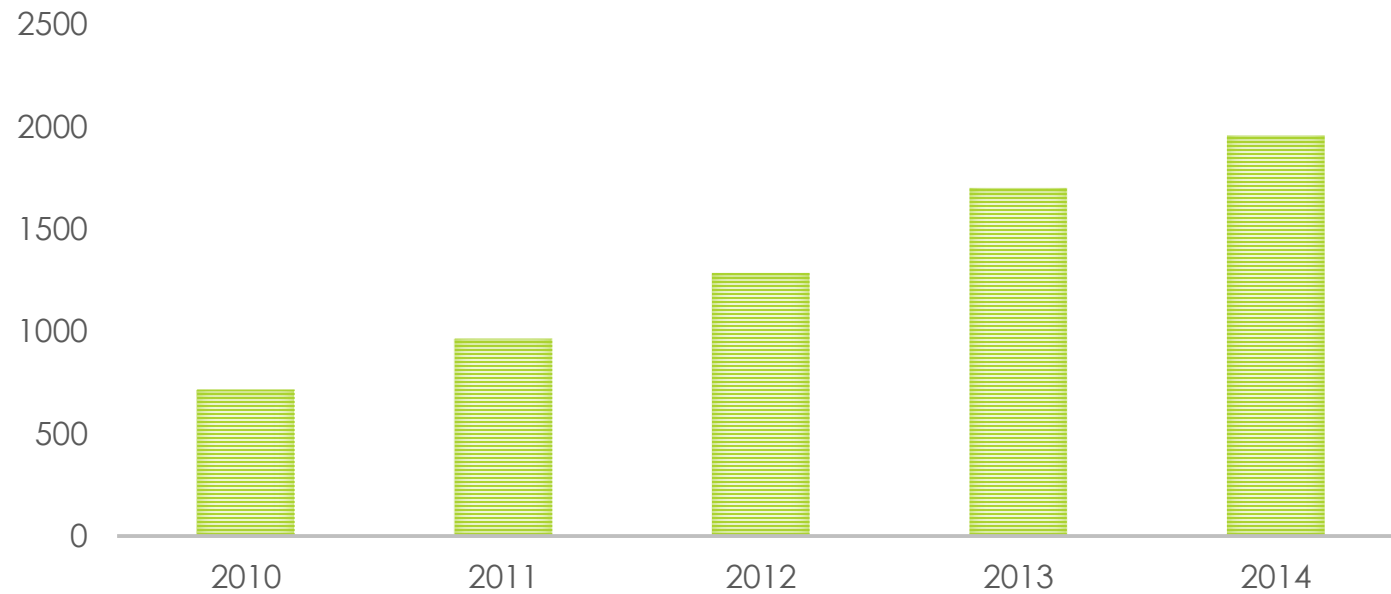
10 MB?

How big should websites be?

- ▶ Depends on your users
 - ▶ Mobile 2G/3G/4G
 - ▶ ADSL
 - ▶ Dial up
 - ▶ Fiber
- ▶ In general – 1 MB or less
 - ▶ 300-500 kB is ideal

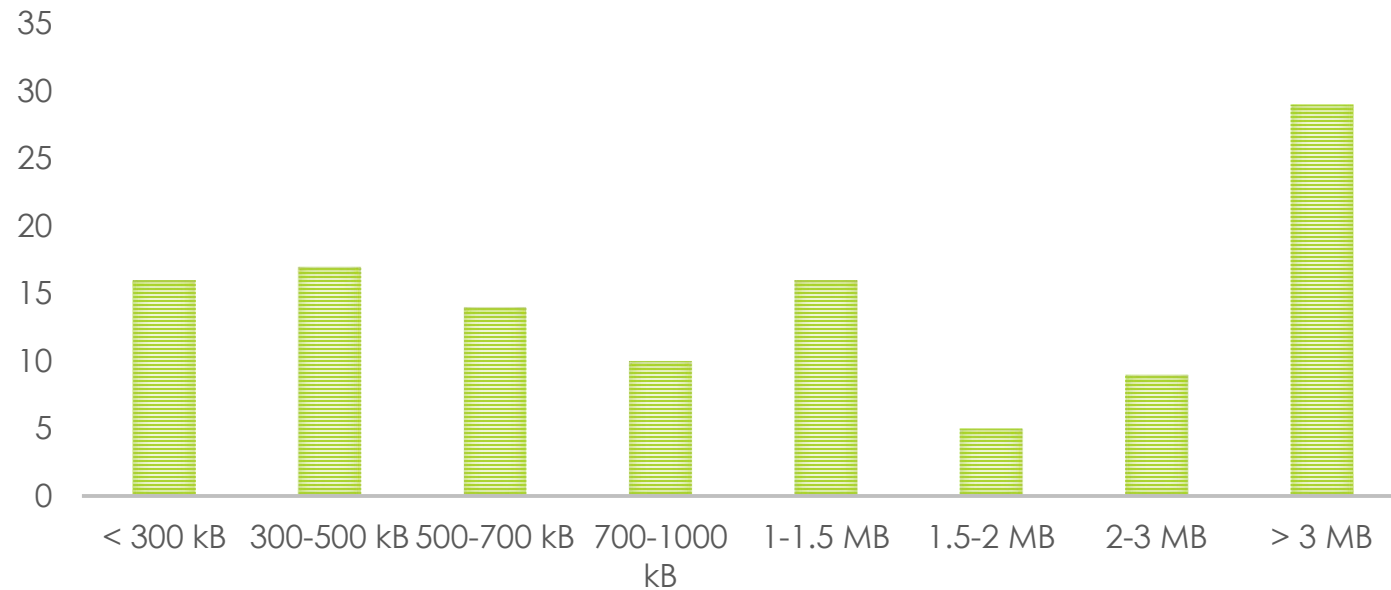
Average Webpage Size Trend

SIZE TREND IN KB



Average Webpage Size (Iceland)

PAGE SIZE (2015)



Does website
speed affect
SEO?

TRIVIA

Google's PageRank is named after

The Rank of
a Webpage

Larry Page

Does website speed affect SEO?

„we're including a new signal in our search ranking algorithms: **site speed**”

- Google Webmasters Blog

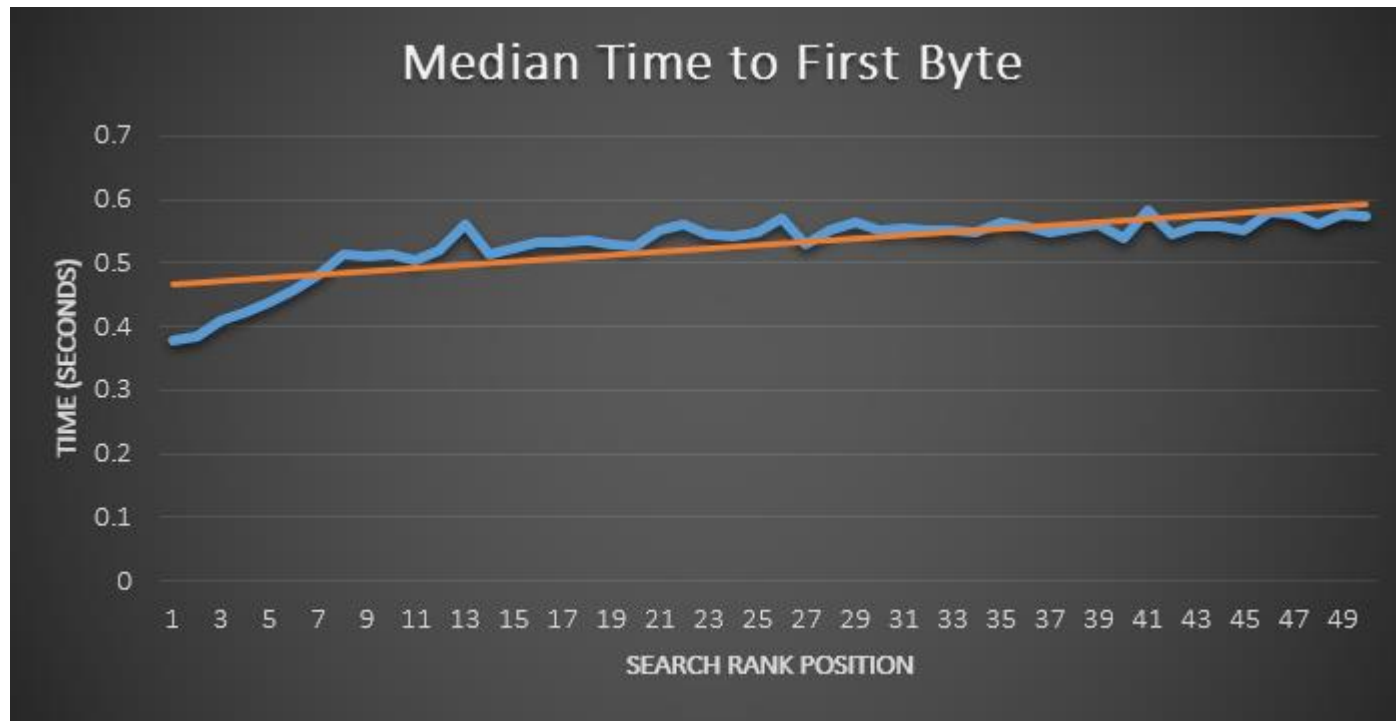
The Google logo is displayed in its characteristic multi-colored font: 'G' is blue, the first 'o' is red, the second 'o' is yellow, 'g' is blue, 'l' is green, and 'e' is red.

Quick Falcon

Show me proof!

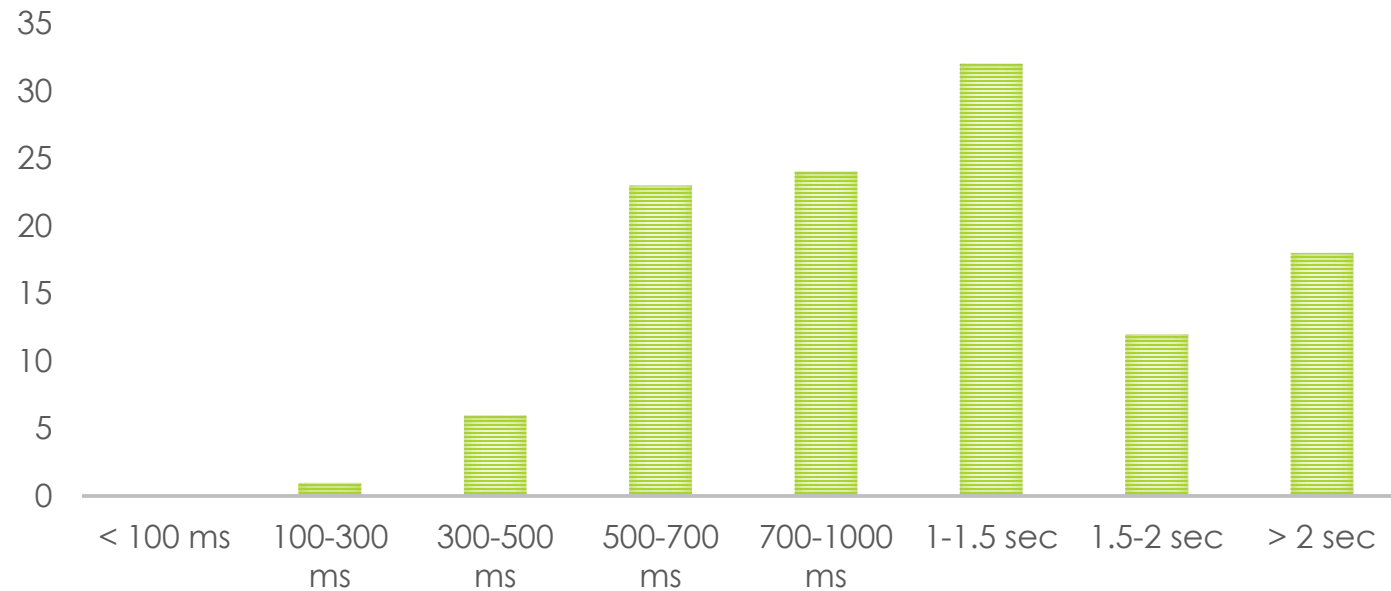
- ▶ Moz asked Zoomph to do a study on ranking and website speed
- ▶ Dataset
 - ▶ 2,000 random search queries
 - ▶ Top 50 for each query
 - ▶ 100,000 web pages

Show me proof!



What about TTFB in Iceland?

TIME TO FIRST BYTE



How do I
measure my
website?

Measuring your website

- ▶ Most people

- ▶ Web Page Test – <http://www.webpagetest.org/>

- ▶ Advanced hackers

- ▶ Boomerang -

- <https://github.com/lognormal/boomerang/>

WebPageTest.Org

The screenshot shows the WebPageTest.Org homepage. At the top left is the logo. Below it is a navigation menu with links for HOME, TEST HISTORY, FORUMS, DOCUMENTATION, and ABOUT. The main heading is "Test a website's performance". Below this are three tabs: Analytical Review, Visual Comparison, and Traceroute. The "Analytical Review" tab is active. The main form contains a large input field labeled "Enter a Website URL", a "Test Location" dropdown menu showing "Dulles, VA USA (IE 8-11, Chrome, Firefox, Android, iOS)", and a "Browser" dropdown menu showing "Chrome". To the right of the form is a yellow "START TEST" button. Below the form is an "Advanced Settings" section with a right-pointing arrow and the text "1 run, Cable connection, results are public". At the bottom, there is a paragraph of text explaining the service and a link to the forums.

1. Type in Website URL

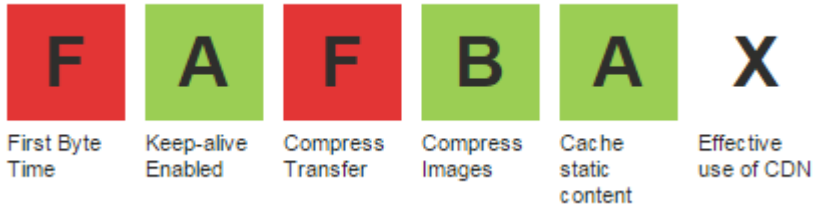
4. Click Start Test

2. Select a location

3. Select a browser

WebPageTest.Org

[Need help improving?](#)



1. Load time
2. Time to First Byte
3. Webpage Size

					Document Complete			Fully Loaded		
	Load Time	First Byte	Start/Render	DOM Elements	Time	Requests	Bytes In	Time	Requests	Bytes In
First View	14.076s	1.241s	2.195s	2011	14.076s	162	1,182 KB	4.442s	163	6,286 KB
Repeat View	1.390s	0.927s	0.795s	2011	1.390s	6	184 KB	1.390s	6	186 KB

Boomerang

- ▶ JavaScript library
- ▶ Collects data from the browser
- ▶ Sends it to a server

- ▶ <https://github.com/lognormal/boomerang/>

How do I
improve my
website?

SHOULD I GET A FASTER
SERVER?



Before you start

▶ DO NOT MOVE TO A “FASTER”
SERVER!

First steps ...

- ▶ Measure and analyze
- ▶ Compress images

Join JavaScript and CSS

- ▶ 10-40% improvement

Cache static pages

- ▶ 5-60% improvement

Defer loading

- ▶ Only load what is visible
- ▶ (Lazy Load)
- ▶ 10-60% improvement

Summary

Summary

- ▶ 1 second is 7% revenue
- ▶ Your website should load in 3 seconds
- ▶ Speed has SEO powers
- ▶ You should measure and optimize your websites



FREE stuff and more information

<http://quickfalcon.com/utmessian>

Thank you 😊

Questions?

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