Not just another WordPress talk

About climate change, the internet & our responsibility

Csaba Varszegi - 16/12/2019 - csaba.be - globalwarning.blog - littlebigthings.be

We are responsible for the products we make

Products

Each product is a **solution** for a problem

We want to solve a problem but we don't need (to own) the product, because a broken product is an additional problem

We only need the solution

The solution is preferably a **service**

Responsibility is different for a product than for a service

Service

Responsibility is for the creator of the solution

The solution will then be more

- Optimal

- Sustainable

Shouldn't a website be a service?
And think about open source project...

Responsibility

We are responsible for the product for the

Client: to solve their problem (long term)

User: know who they are and what they need to solve their problem

Environment: sustainability

Ruined by Design by Mike Monteiro

Facts

Climate Change

Loss of Biodiversity

Sea Level Rise

Diseases

Tipping points

Tipping points

Passing a threshold can lead to a large change in the climate: no way back?

Examples:

- Melting of land ice

- Methane from under the ice

- Change in large-scale ocean circulations

Causes

Fossil Fuels

Agricultural Practices

Cutting Down and Burning Forests

Waste Management

Act!

Save energy

Travel smart

Reduce, Reuse, Recycle

Plant a tree

Eat local, seasonal food and less meat

Disconnect

"When people talk about travelling to the past, they worry about radically changing the present by doing something small.

But barely anyone in the present really thinks that they can radically change the future by doing something small."

The internet

"The internet is the single biggest thing we're going to build as a species.

If we build it the right way, with the right sources of energy, it could really help power our transition to renewables.

If we build it the wrong way, it could actually exacerbate the problem."

Gary Cook (Greenpeace)

Internet: footprint

Energy is needed for devices, networks and servers

	tonnes CO_2 in 2017
Internet	1 000 000 000*
Belgium	104 000 000
US	5 100 000 000

2% of global emissions
Equivalent to global air travel

Growing rapidly!

Internet by numbers

A Google search	0.2 - 7 g CO_2
An email	> 4 g CO_2
Average web page size	4 Mb?
Median web page (desktop)	2 Mb, 75 requests, incl. > 400 kB JavaScript
First contentful paint	2.4 s
Internet users	> 4 400 000 000
Number of websites	a lot! (> 1 700 000 000?)
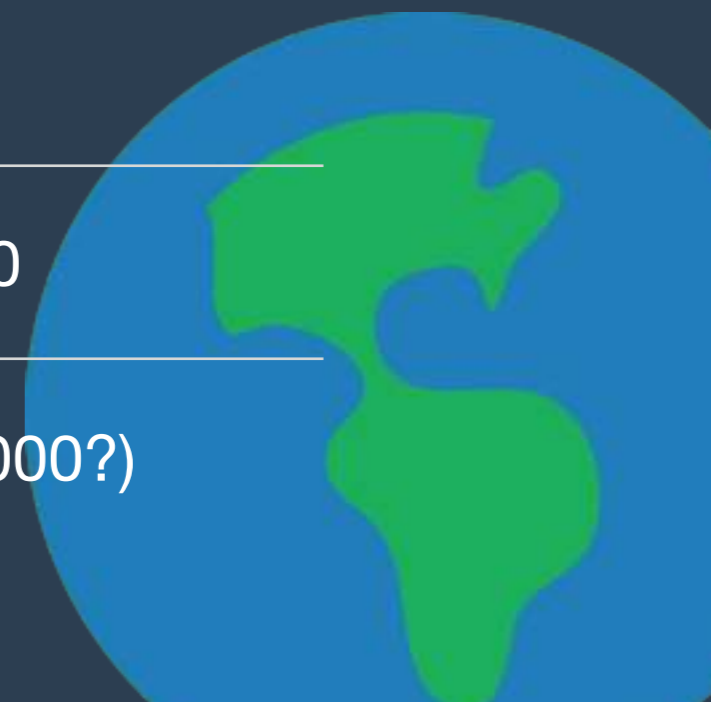
Internet by numbers

How much energy is required to load a page and how much CO_2 is emitted?

Hard to estimate: **5 W/MB?**

Belgium:

0.156 g CO_2 eq/W

= 0.78 g CO_2 eq/MB

Median web page = 1.56 g CO_2 eq

🇧🇪 België

156g — Koolstofintensiteit

77% — Low-carbon

32% — Renewable

"*Sustainable development* meets the needs of the present without compromising the ability of future generations to meet their own needs."

Our Common Future - United Nations

De meeste mensen deugen by Rutger Bregman

Sustainable web design

Performance

Usability

Discoverability

Green hosting

Same as for an optimal site!

Designing for Sustainability by Tim Frick
How better performing websites can help save the planet by Jack Lenox

Tools

A Book Apart books :-)

Your browser: design in the browser from the start and keep an eye on performance

Website carbon calculator

Ecograder

The Green Web Foundation

Global Warning

globalwarning.blog

About the impact of the internet on our environment

Small in size, about 20-30 kb per page, built on top of WordPress

"The future belongs to those who believe in the beauty of their dreams."

Eleanor Roosevelt

About Global Warning

https://global-warning.littlebigthings.be/

The original site was built for 10k apart

Contest to build a functional website in 10 kb or less
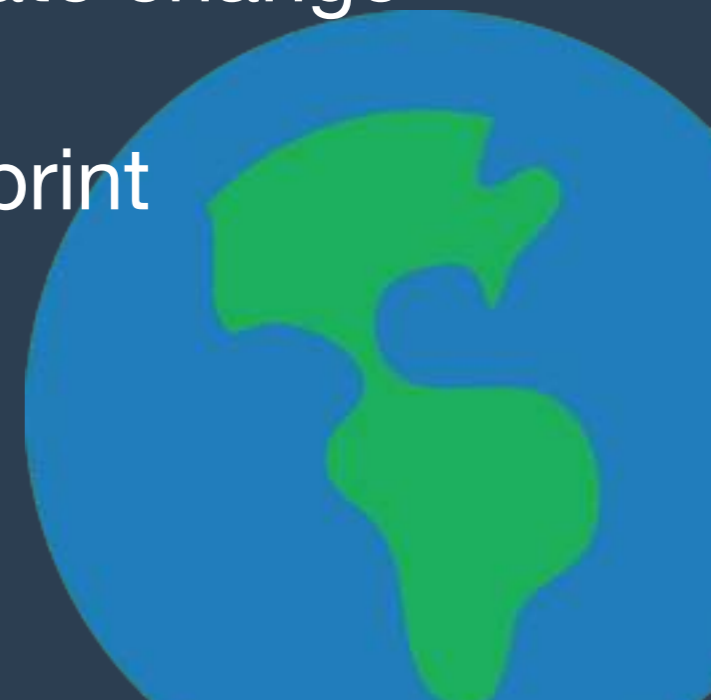
7 kb

Source code on GitHub

About Global Warning

The original site was mentioned at SustainableUX

Jack Lenox, who built SustyWP, a tiny WP theme

Purpose

- blog about the impact of the internet on climate change

- make a manageable website with a little footprint

- show that WordPress is not bloated

How I built it (demo)

_s starter theme

Simplified: CSS, ~~sidebar~~, navigation, ~~emojis~~, …

Support for WP features: navigation menu, header image, ~~responsive images~~, counter

Support for Gutenberg core blocks

Colours and CSS animation

https://www.csaba.be/global-warning-a-wordpress-blog-with-a-tiny-footprint/
https://www.csaba.be/site-with-a-tiny-footprint-about-global-warming/

Comparison

WordPress version	Original version
4.5 kB HTML	2 kB HTML
8 kB CSS	2 kB CSS
4.5 kB images (png)	2 kB images (svg)
< 1 kB JavaScript	< 1 kB JavaScript
system fonts	browser fonts
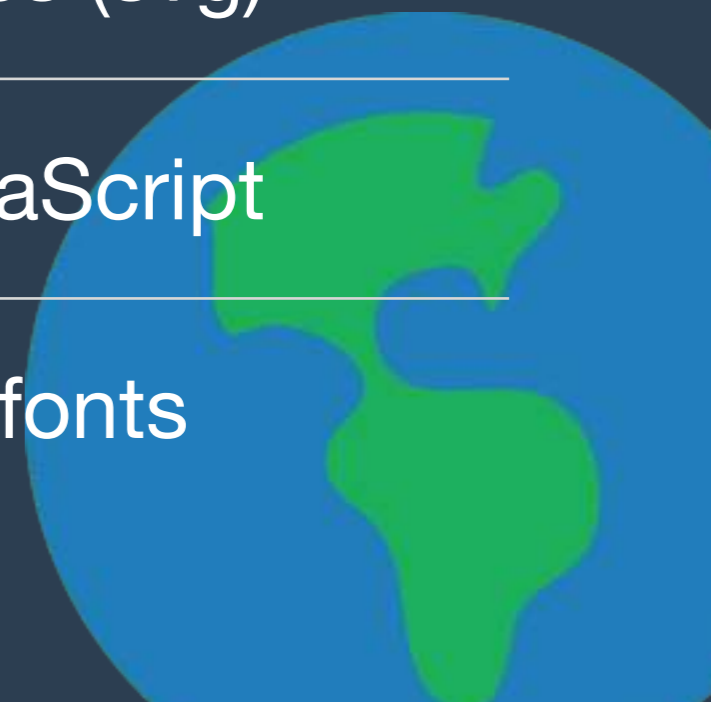
Plugins & stuff

WP Super Cache

Slim SEO

Analytics: Google Analytics (1.5 kb) via
https://minimalanalytics.com/

Conclusions

Think before you start, optimise from the beginning

Only include what you really need

Care for your client **and** for their clients (= end-users)

Be the expert

Contribute (to WordPress)

Create with passion and do it the right way

"Everything is possible, even the impossible."

Mary Poppins

Write for Global Warning

Topics

Everything about the internet and its relation to climate change

Blog posts: lazy loading, service workers, simplicity, performance, variable fonts, dark mode, …

Suggestions and articles are welcome!

hello@globalwarning.blog

I'm Csaba

I am a minimalist web developer at LittleBigThings and author of the blog Global Warning

I love to create things and hope to change things

I blog mostly about WordPress and contribute to it as well

I love to write and listen to music, and play guitar

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Join at
globalwarning.blog/act/

Thank you!

Resources: books

Ruined by Design by Mike Monteiro

Designing for Sustainability by Tim Frick

Material Matters by Thomas Rau & Sabine Oberhuber (Dutch and German)

Hoe gaan we dit uitleggen by Jelmer Mommers (Dutch only)

De meeste mensen deugen by Rutger Bregman (Dutch only)

Going Offline by Jeremy Keith

Resilient Web Design by Jeremy Keith ([free ebook](#))

Resources: sites

Wholegrain Digital: https://www.wholegraindigital.com/ and their Granola WP starter theme: https://www.wholegraindigital.com/blog/granola-starter-theme/

SustainableUX: https://sustainableux.com

The lean web: https://leanweb.dev from Chris Ferdinandi (https://gomakethings.com)

The minimalists: https://theminimalists.com/