

*Happiness through simplicity*

Why simplicity is important.

Ways to make web apps simpler.

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*What I do*

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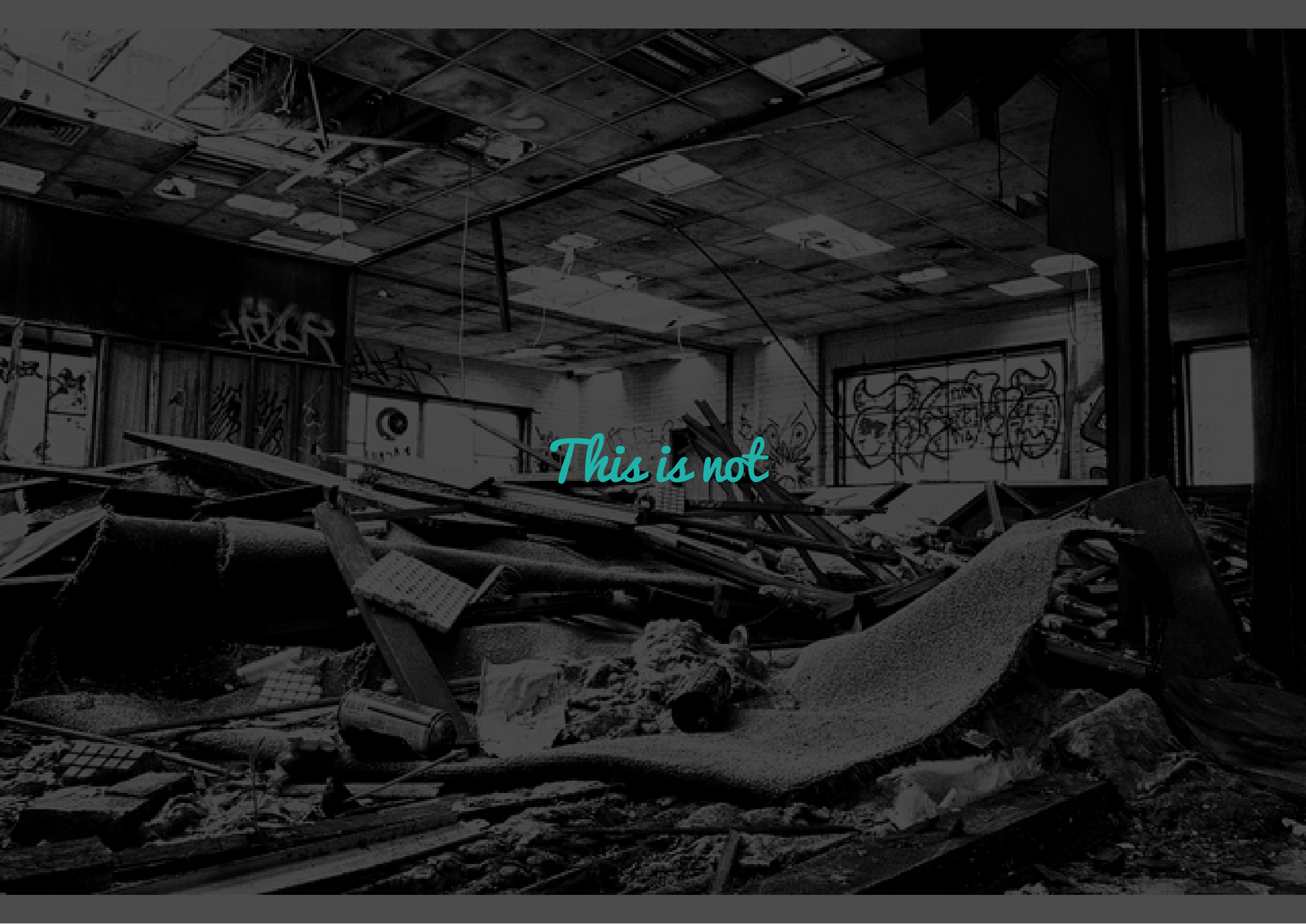
A black and white photograph of two women running towards the camera. The woman on the left has dark, curly hair and is wearing a light-colored short-sleeved top with a Peter Pan collar and a dark skirt. The woman on the right has blonde, curly hair and is wearing a light-colored long-sleeved blouse with a large collar and a dark skirt. Both women are smiling broadly and appear to be in motion. The background is a blurred outdoor setting with a building and windows.

*Keeping people happy and moving ahead*

*Happiness  $\approx$  feeling like you're getting somewhere.*

The image is a grayscale collage consisting of four vertical panels. Each panel shows a different perspective of the Eiffel Tower. The leftmost panel shows the lower part of the tower, the base and the first few levels. The second panel shows the tower rising from the base. The third panel shows the tower from a low angle, looking up. The rightmost panel shows the tower from a high angle, looking down. The text "This is nice to work on" is overlaid in the center of the collage, in a light blue, cursive font.

*This is nice to work on*



*This is not*

# We are designers

## *Design*

*"The art or action of conceiving of and producing a plan of something."*

OED





*"A designer knows he has achieved perfection not when there is nothing left to add,  
but when there is nothing left to take away."*

*Antoine de Saint-Exupery*



*"Refactor on first paste."*

*Luke Benstead @kazade)*

## Good code

**Everything is relevant.** If you're not sure if something's used, delete it. 'git revert' will forgive you.

**You can change something once** because the the code is free of duplication.

There's **less to be updated and maintained or changed** because the code is free of of unnecessary things. That includes **unnecessary good things**.

API client

Every API method:

Repeated auth key

Repeated endpoint

Repeated content-type etc.

# *Simplify: single function export*

Export a single function, that takes auth key, endpoint, and a returns an object with methods that use them.

Smaller, simpler function signatures.

Add additional headers in a single place



Realtime

Repeated paths - REST API and websocket.

Additional complexity to support full duplex communications.

Additional complexity to support old web technologies.

Different debug mechanism.



# *Simplify:*

HTML5 SSE.

Entire API now in REST/HTTP.

Single mechanism to get something from the server.

Less code.

Rate limiting

Third party API.

Limit is amount over a time period.

Technically a very simple problem.

# *Simplify: existing library*

Found `node-rate-limit`.

**Function signature of module was 1:1 match with requirements.**

Benefit: problem fixed, no significant new code.

We use libraries for DOM and AJAX, but they're also good for state machines, statistics and most other common tasks.

# Data Binding

We have data.

We have an HTML template.

We'd like them to be rendered somewhere in the document.

And update what's necessary when the data changes.

# *Simplify:*

ractive.js

Function signature of ractive is 1:1 match with problem of binding.

Benefit: things we didn't consider.

DOM complexity



Needed: some buttons, inside a header, inside a nav

DOM 7 levels deep.

A new JS global.

Styling classes in the DOM.

Things like ``nav class="nav"``

# *Simplify: hand coded DOM and SASS*

Block element layout was a near\* 1:1 match match with design.

All elements styled in SASS.

Elements needed only a single class name at most.



JS has it's own repetition.

Ever made a typo running `console.log()` or `document.querySelector()`?

# *Simplify: add short aliases*

log(), query() on whatever scope you control.

Less typos.

Boosts signal/noise ratio of your code.

## *In Summary*

Unnecessary complexity is a drag.

Actively think about simplicity.

And most importantly...



*Keep moving, keep happy.*

*Thanks!*

*@mikemaccana*