

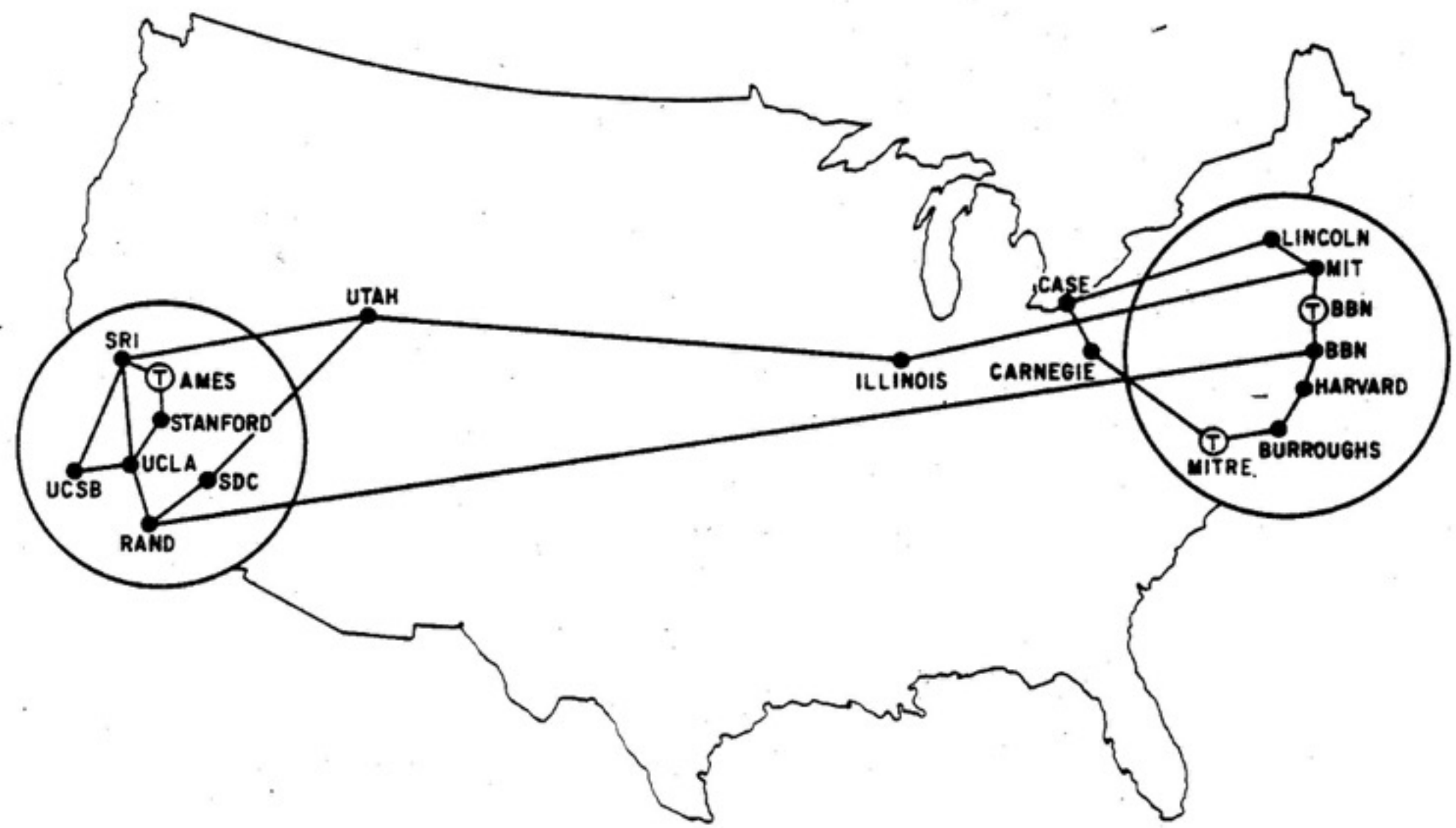
RESILIENCE

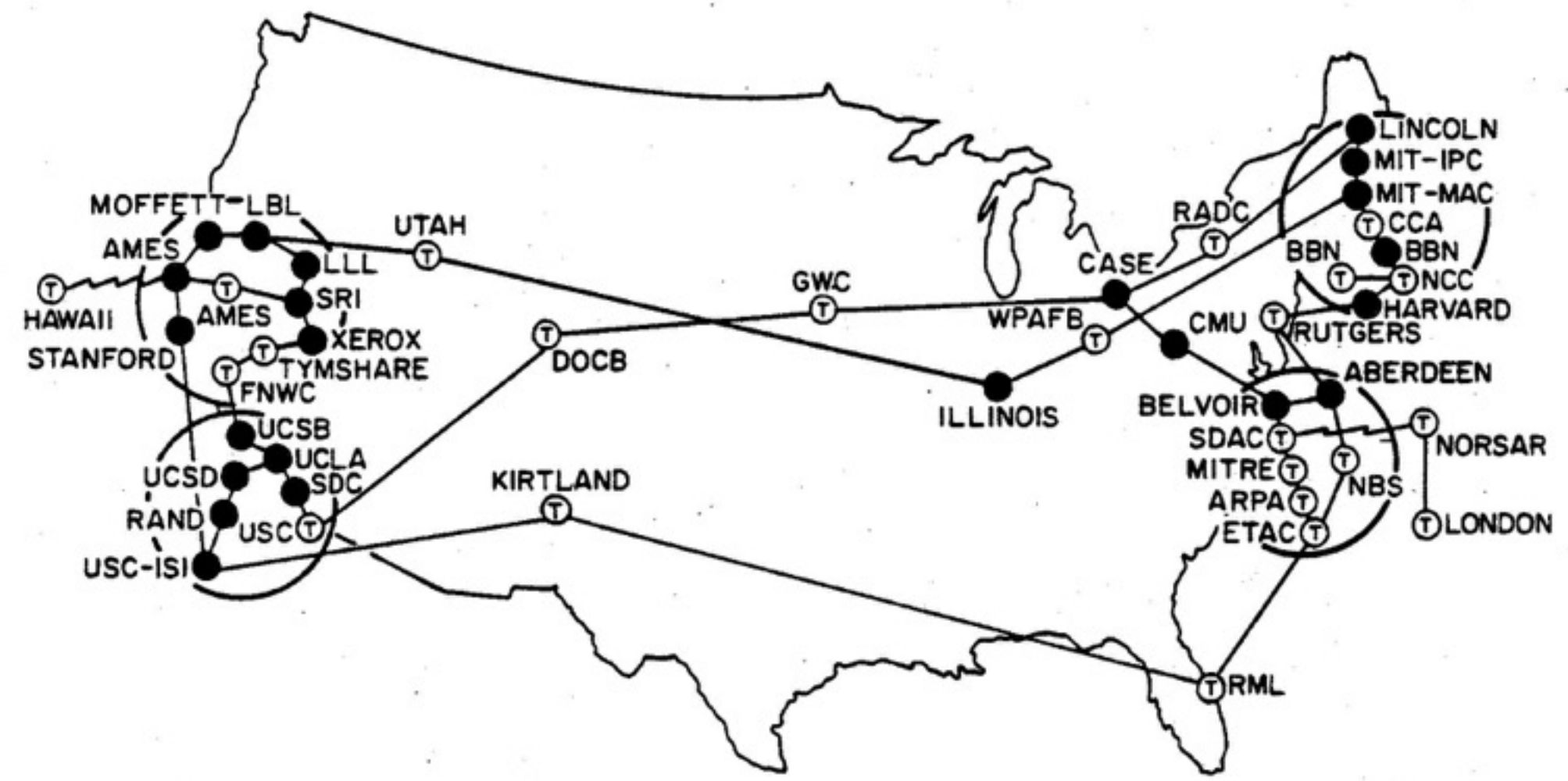




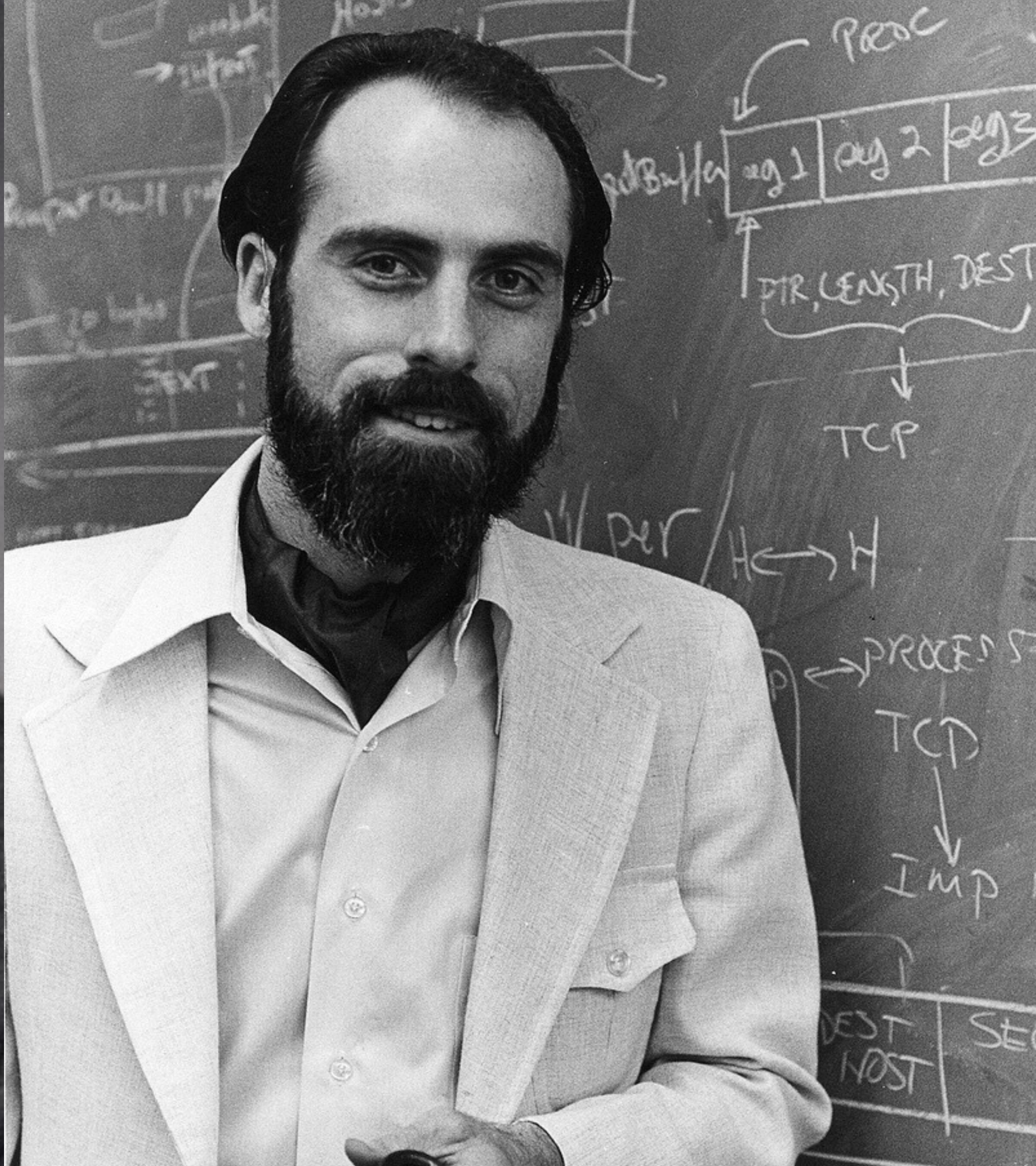
The ARPANET in December 1969

10









“Deliver the bits, stupid.”

—David Isenberg
“Rise of the Stupid Network”

HTTP

email

ftp

telnet

gopher

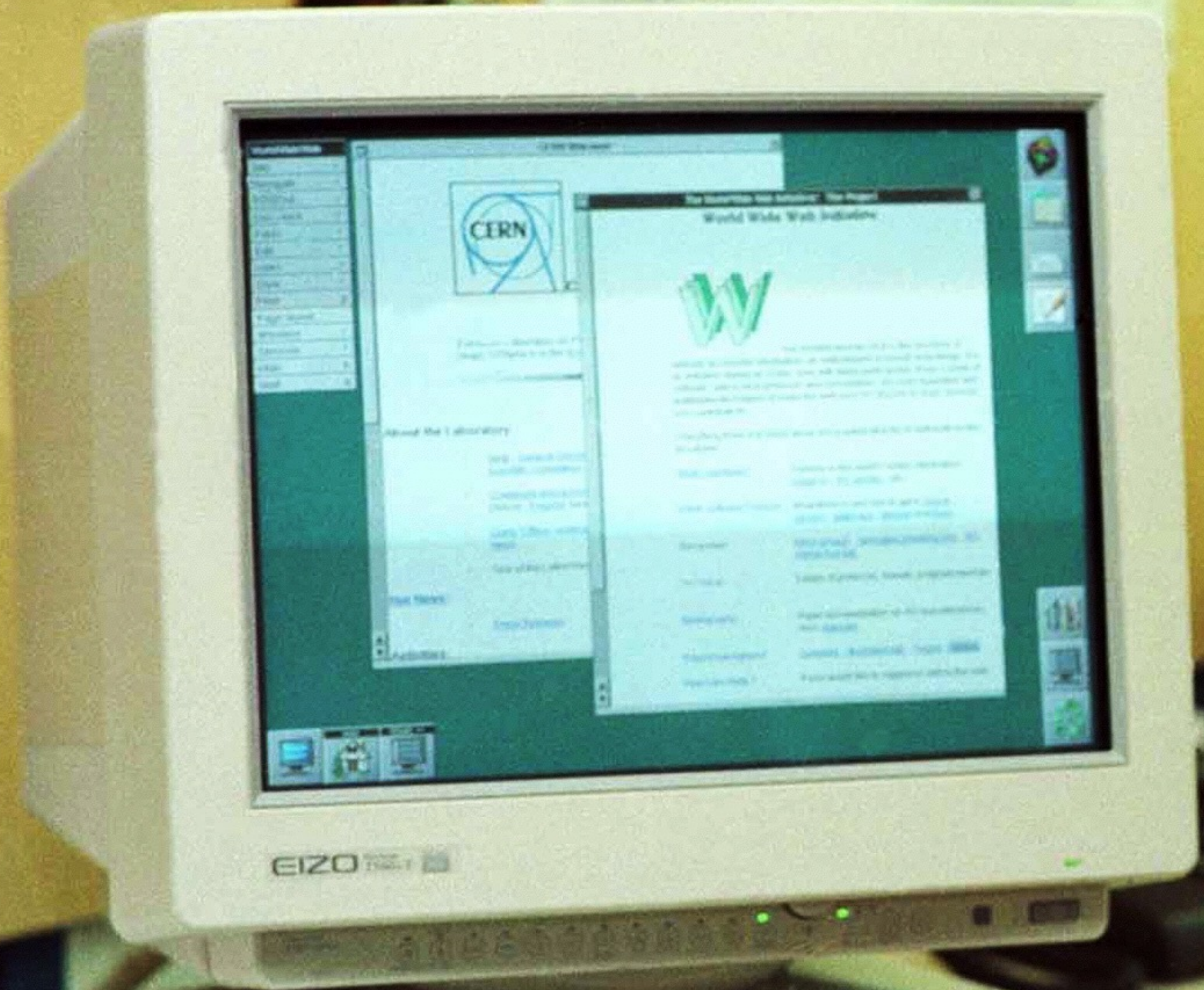
TCP/IP

HTTP

URLs

HTML

WWW





ENQUIRE
WITHIN



Upon
Everything

CERN DD/OC

Tim Berners-Lee, CERN/DD

Information Management: A Proposal

March 1989

Information Management: A Proposal

Abstract

This proposal concerns the management of general information about accelerators and experiments at CERN. It discusses the problems of loss of information about complex evolving systems and derives a solution based on a distributed hypertext system.

Keywords: Hypertext, Computer conferencing, Document retrieval, Information management, Project control



WHERE THE WEB WAS BORN

In the offices of this corridor, all the fundamental technologies of the World Wide Web were developed.

Started in 1990 from a proposal made by Tim Berners-Lee in 1989, the effort was first divided between an office in building 31 of the Computing and Networking Division (CN) and one in building 2 of the Electronics and Computing for Physics Division (ECP).

In 1991 the team came together in these offices, then belonging to EC. It was composed of two CERN staff members, Tim Berners-Lee (GB) and Robert Cailliau (BE), aided by a number of Fellows, Technical Students, a Coopérant and Summer Students.

At the end of 1994 Tim Berners-Lee left CERN to direct the World Wide Web Consortium (W3C), a world-wide organization devoted to leading the Web to its full potential. The W3C was founded with the help of CERN, the European Commission, the Massachusetts Institute of Technology (MIT), the Institut National pour la Recherche en Informatique et en Automatique (INRIA), and the Advanced Research Projects Agency (ARPA).

In 1995 Tim Berners-Lee and Robert Cailliau received the ACM Software System Award for the World Wide Web. In 2004, Tim Berners-Lee was awarded the first Millennium Technology Prize by the Finnish Technology Award Foundation.

The CERN Library
June 2004

“The trick... is to make sure that each limited mechanical part of the web, each application, is within itself composed of simple parts that will never get too powerful.”

—Tim Berners-Lee

HTTP

URLs

HTML

WWW

HTML

HTML tags

21 elements

HTML 5

121 elements

```
<div>  
show me  
</div>
```

<foo>
show me
</foo>

<main>
show me
</main>


```
<canvas>  
hide me  
</canvas>
```

<picture>

<source srcset>

<source srcset>

</picture>

CSS

OOCSS

SMACSS

BEM

```
selector {
```

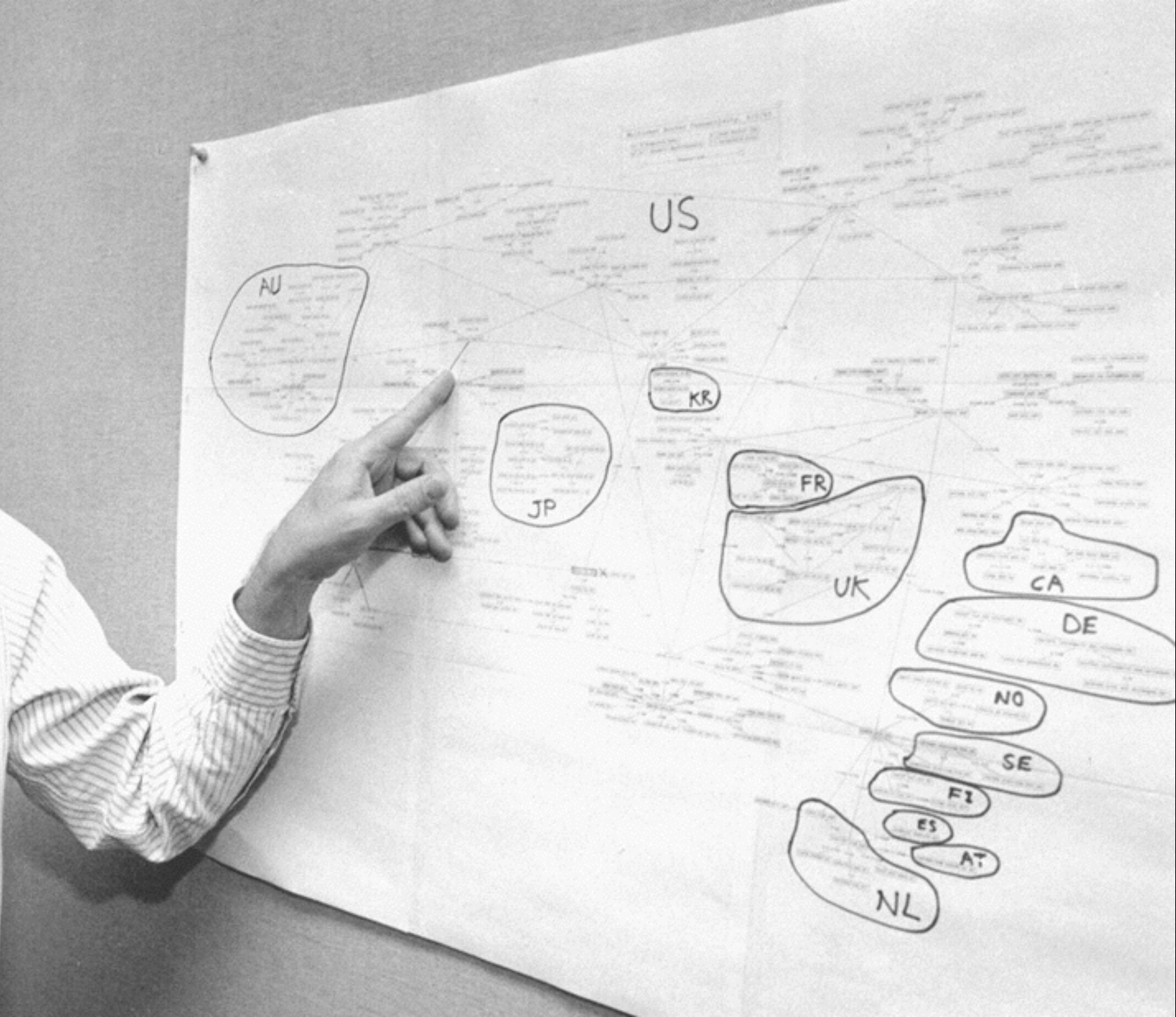
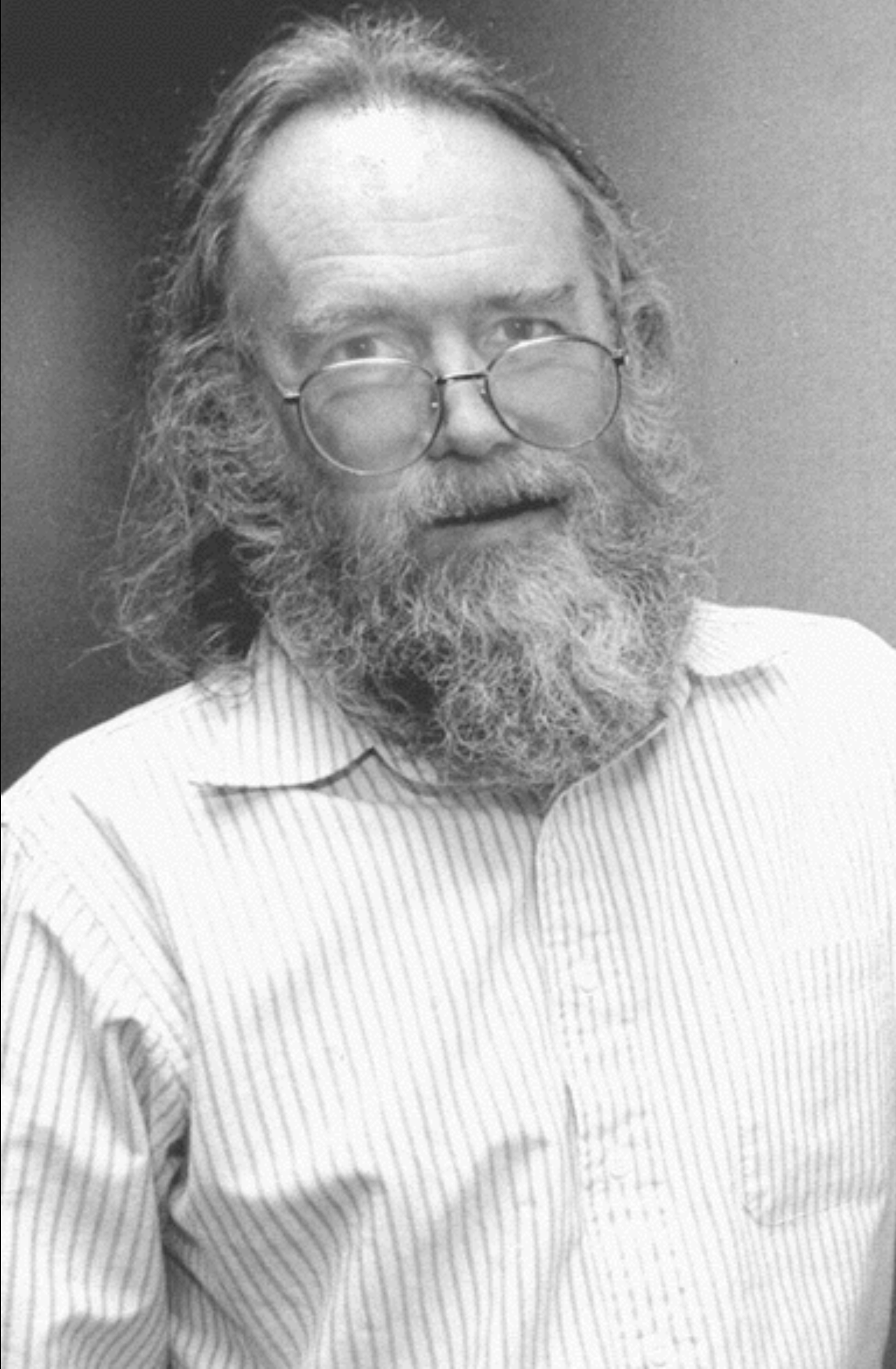
```
  property: value;
```

```
}
```

CSS
HTML

*“Be conservative in what you send,
be liberal in what you accept.”*

—Jon Postel



fragile

imperative JavaScript

CSS

declarative HTML

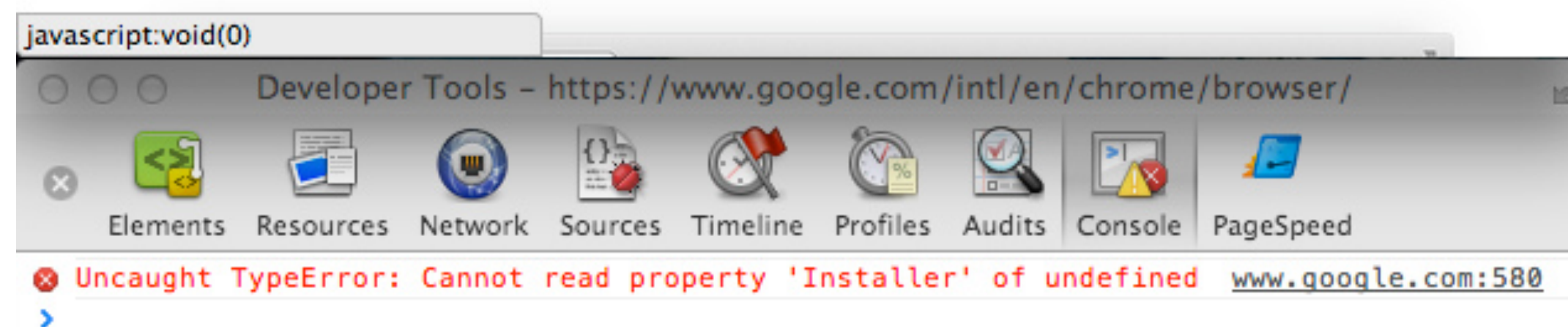
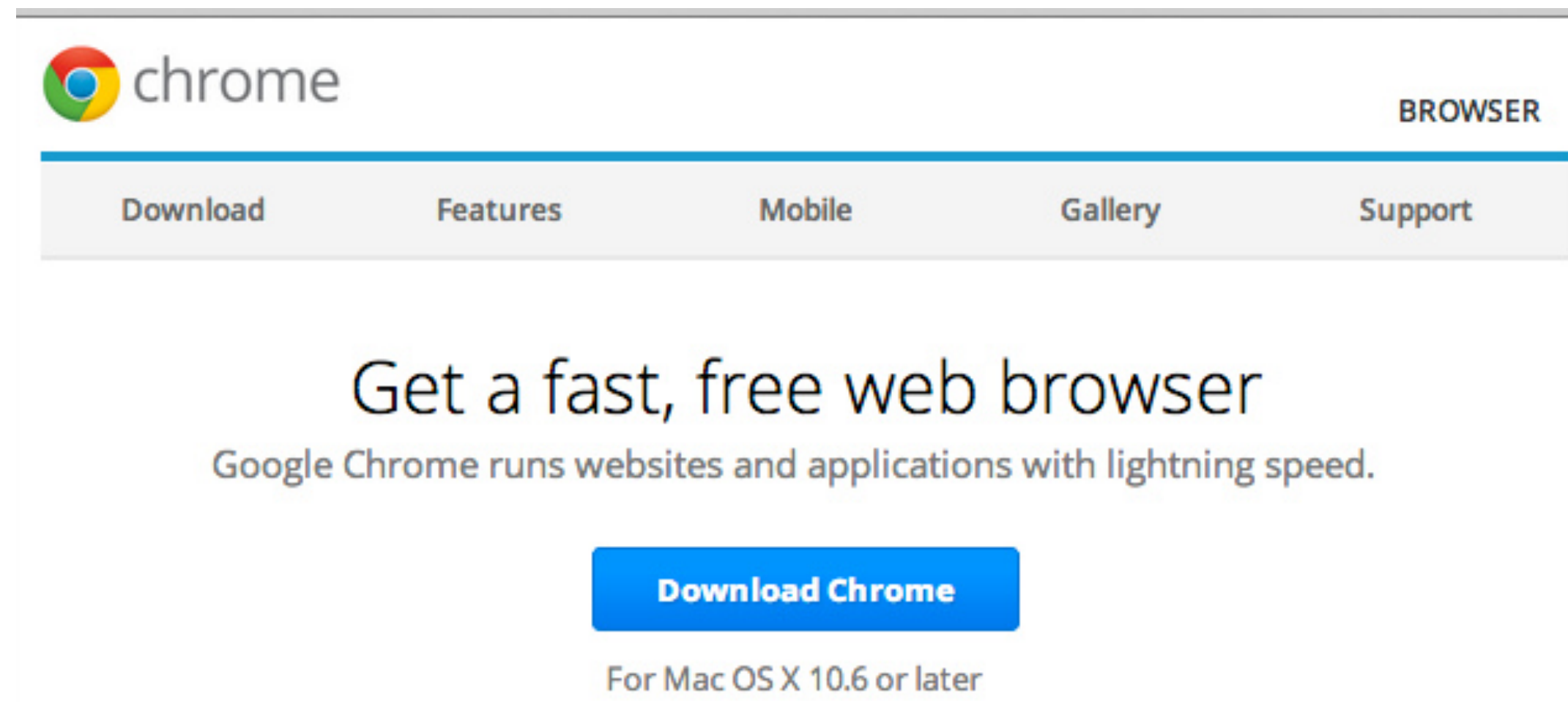
resilient

fragile

XHTML 2

fragile

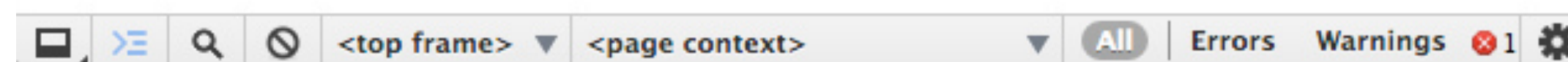
JavaScript



``

`Download Chrome`

``



*“Anything that can possibly go wrong,
will go wrong.”*

—Edward Aloysius Murphy, Jr.

Everyone has JavaScript, right?

YOUR USER REQUESTS YOUR WEB APP

HAS THE PAGE LOADED YET?

“All your users are non-JS while they're downloading your JS” — [Jake Archibald](#)

DID THE HTTP REQUEST FOR THE JAVASCRIPT SUCCEED?

If they're on a train and their net connection goes away before your JavaScript loads, then there's no JavaScript.

DID THE HTTP REQUEST FOR THE JAVASCRIPT COMPLETE?

How many times have you had a mobile browser hang forever loading a page and then load it instantly when you refresh?



FO43040Z01

FO43040Z01

FO43040Z01

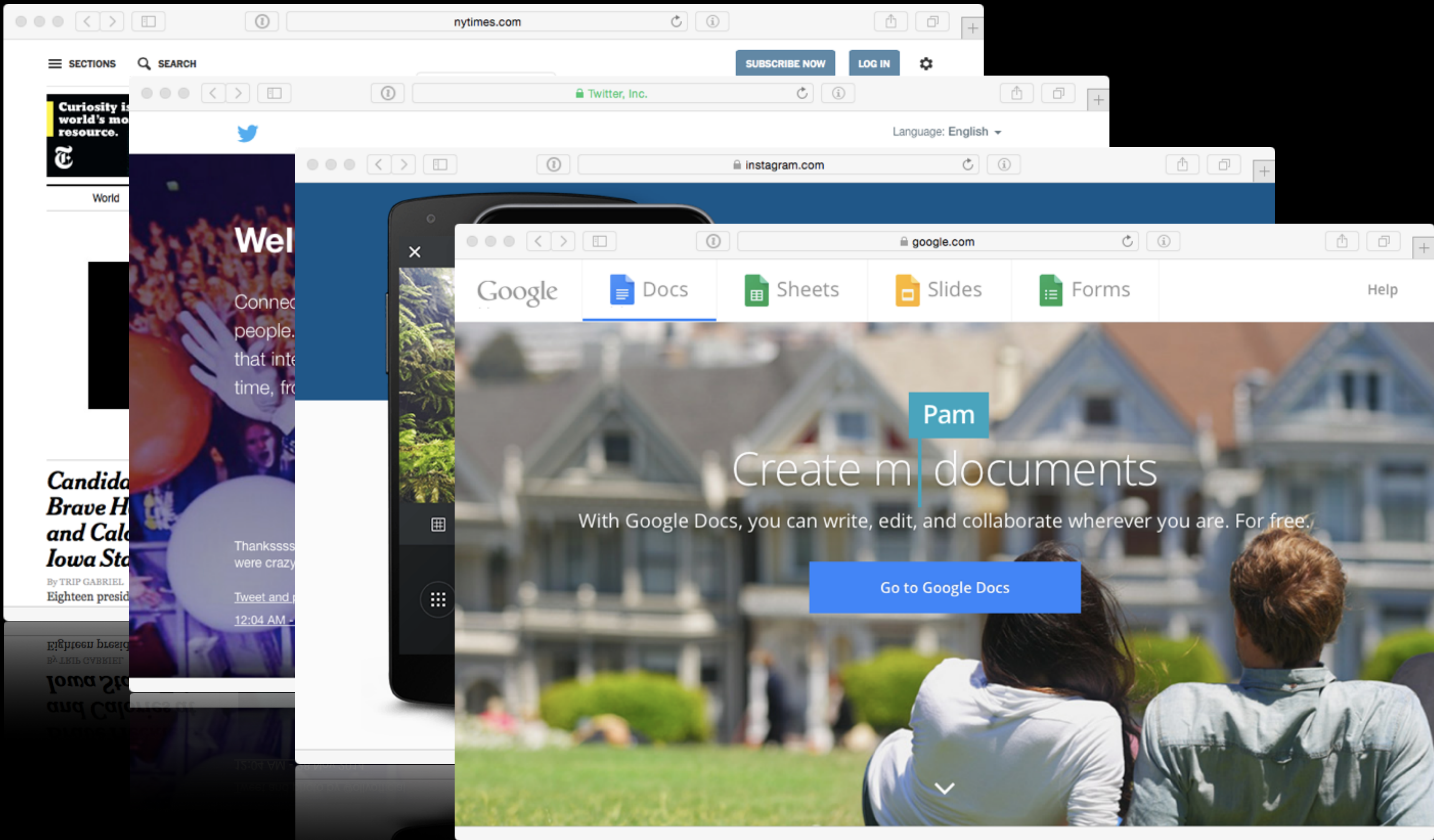
ADAC AMTC



0.15

1. Identify core functionality.
2. Make that functionality available using the simplest technology.
3. Enhance!

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2. Make that functionality available using the simplest technology.
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nytimes.com

SECTIONS SEARCH

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Curiosity is
world's mo
resource.
T

Twitter, Inc.

Language: English

Instagram.com

google.com

Google

Docs

Sheets

Slides

Forms

Help

Candida
Brave H
and Cal
Iowa Sta
By TRIP GABRIEL
Eighteen presid

Wel
Connec
people.
that inte
time, fr
Thankssss
were crazy
Tweet and
12:04 AM -

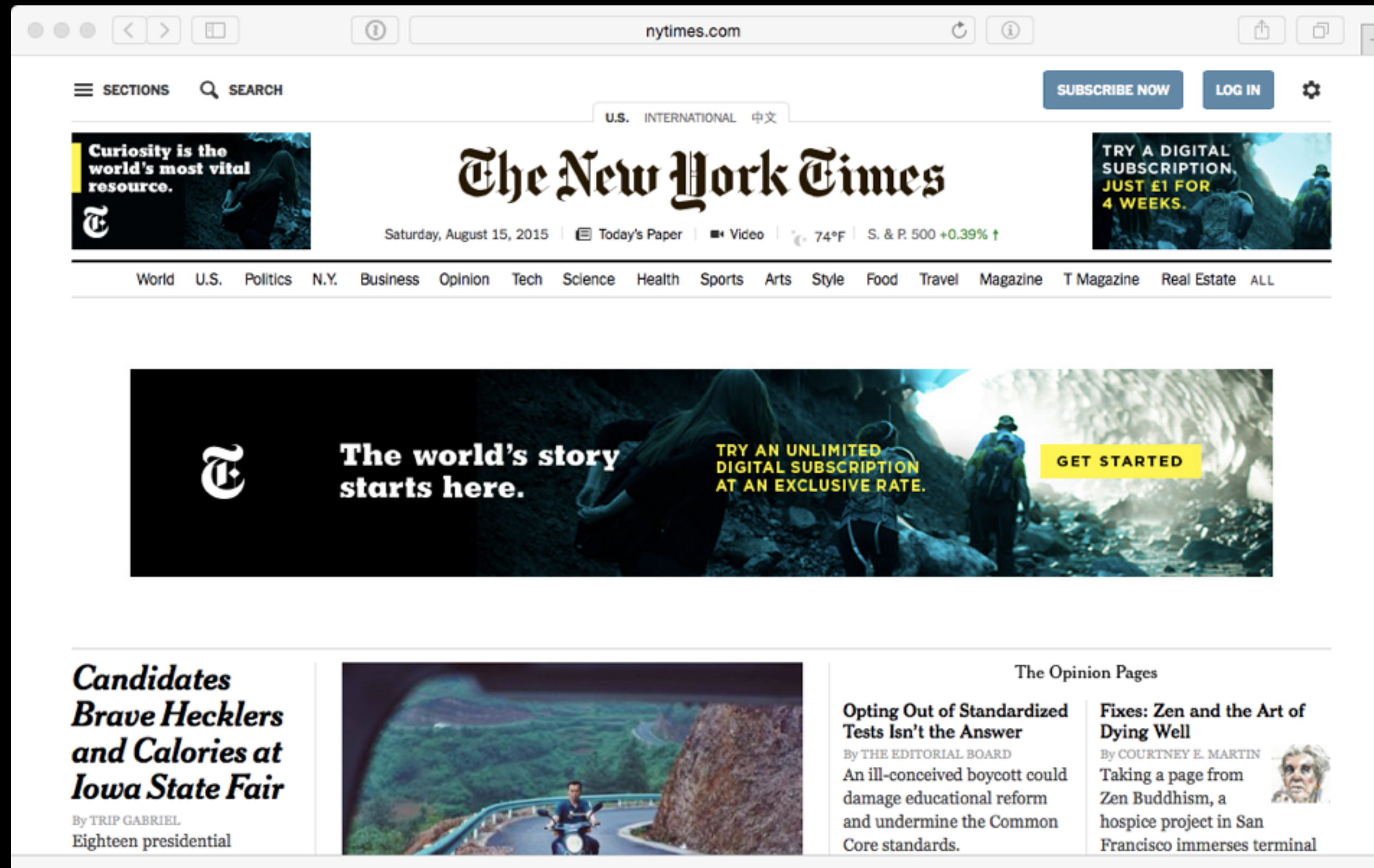
Pam

Create my documents

With Google Docs, you can write, edit, and collaborate wherever you are. For free.

Go to Google Docs

1. Identify core functionality.
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<nav>

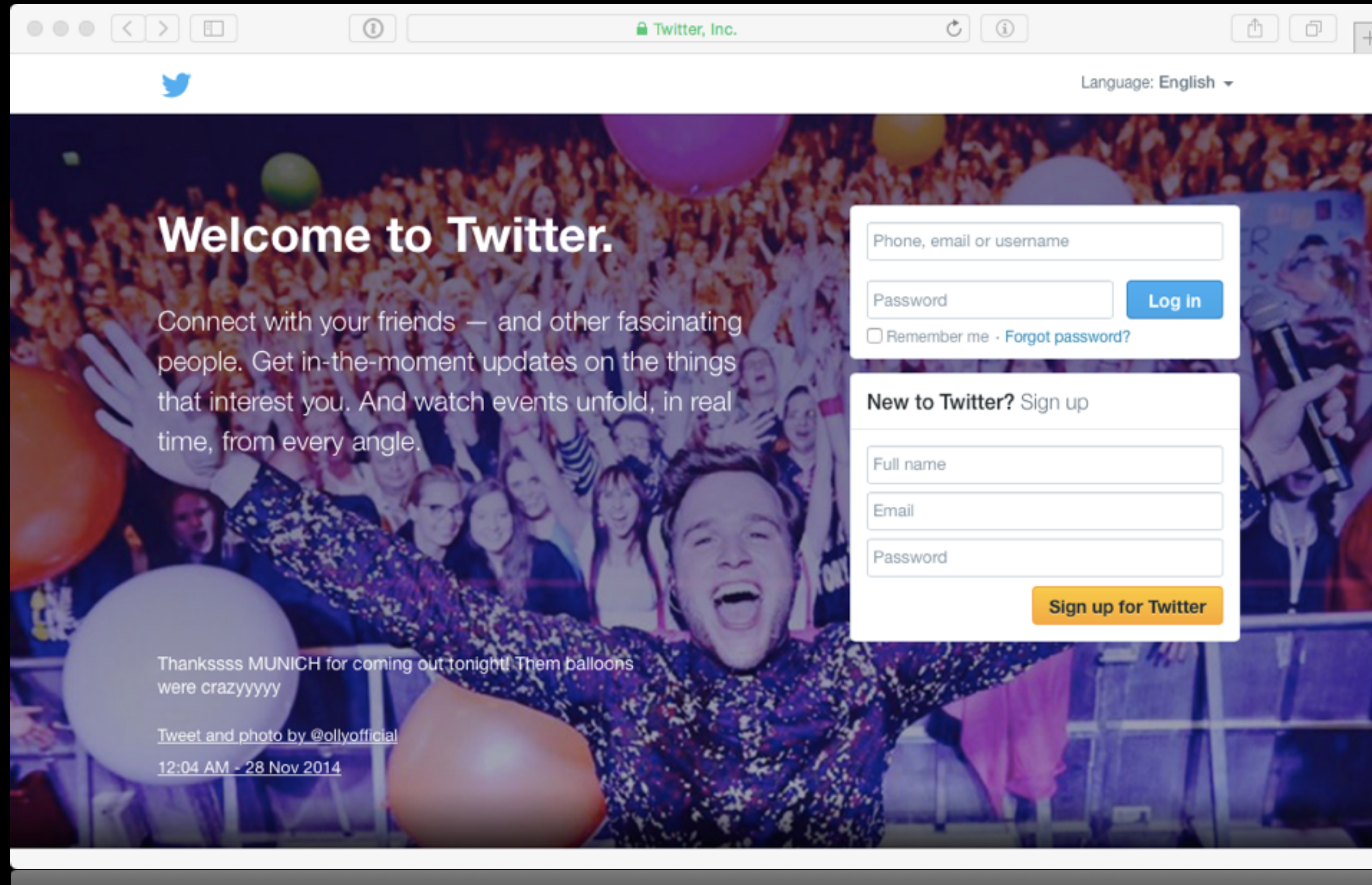
<main>

<h1>

<p>

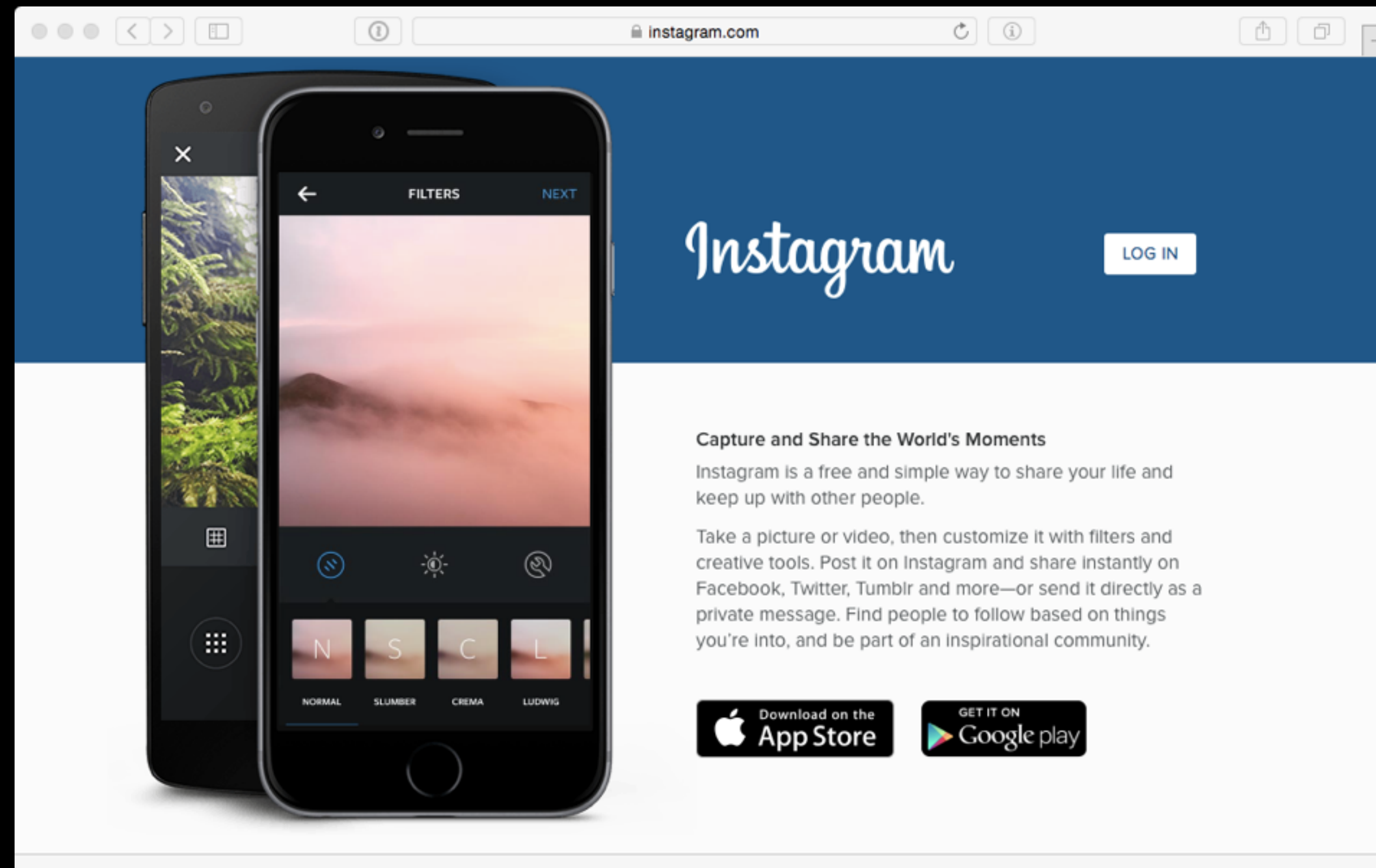
<footer>

<article> <header>

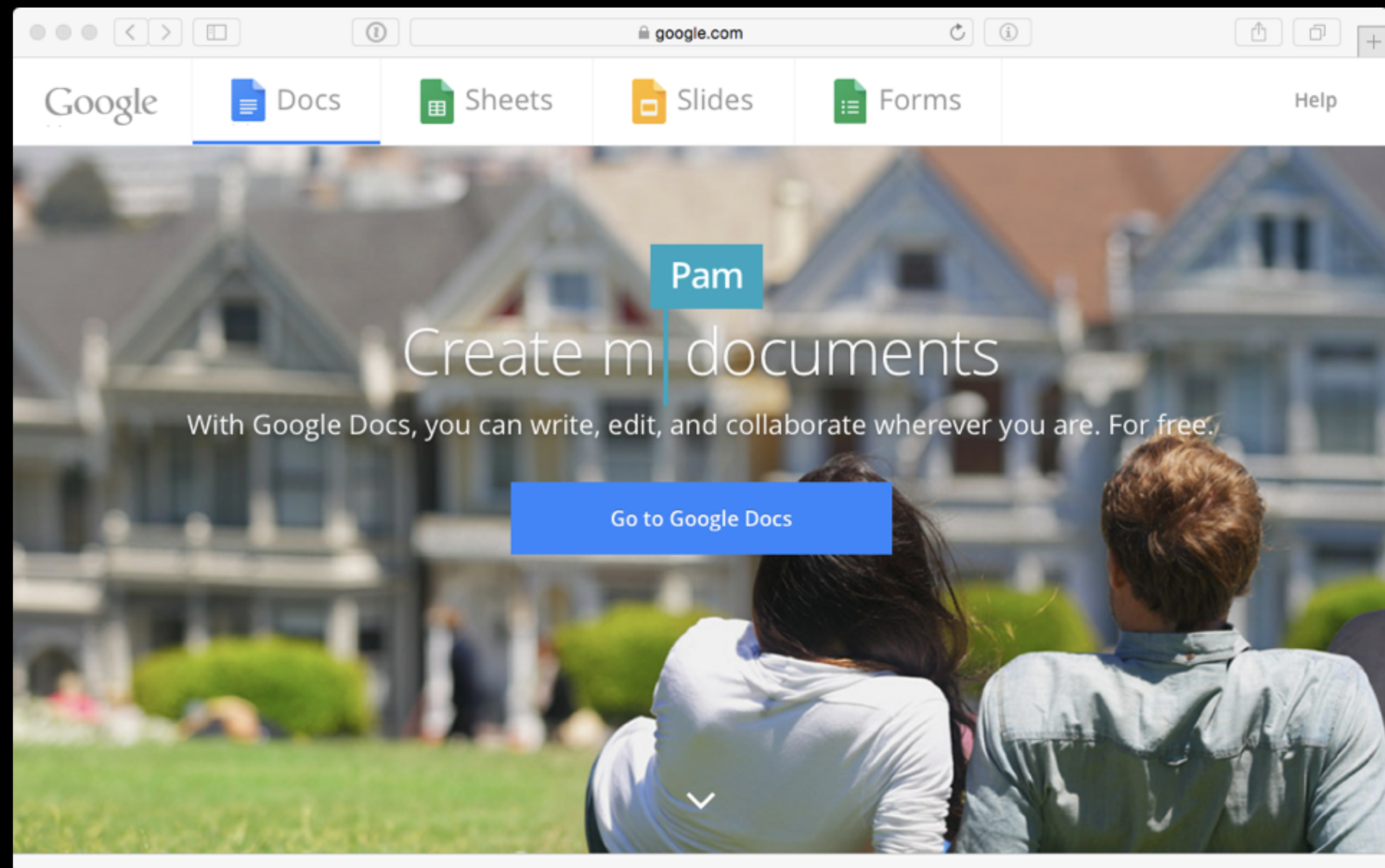


<input type="text">

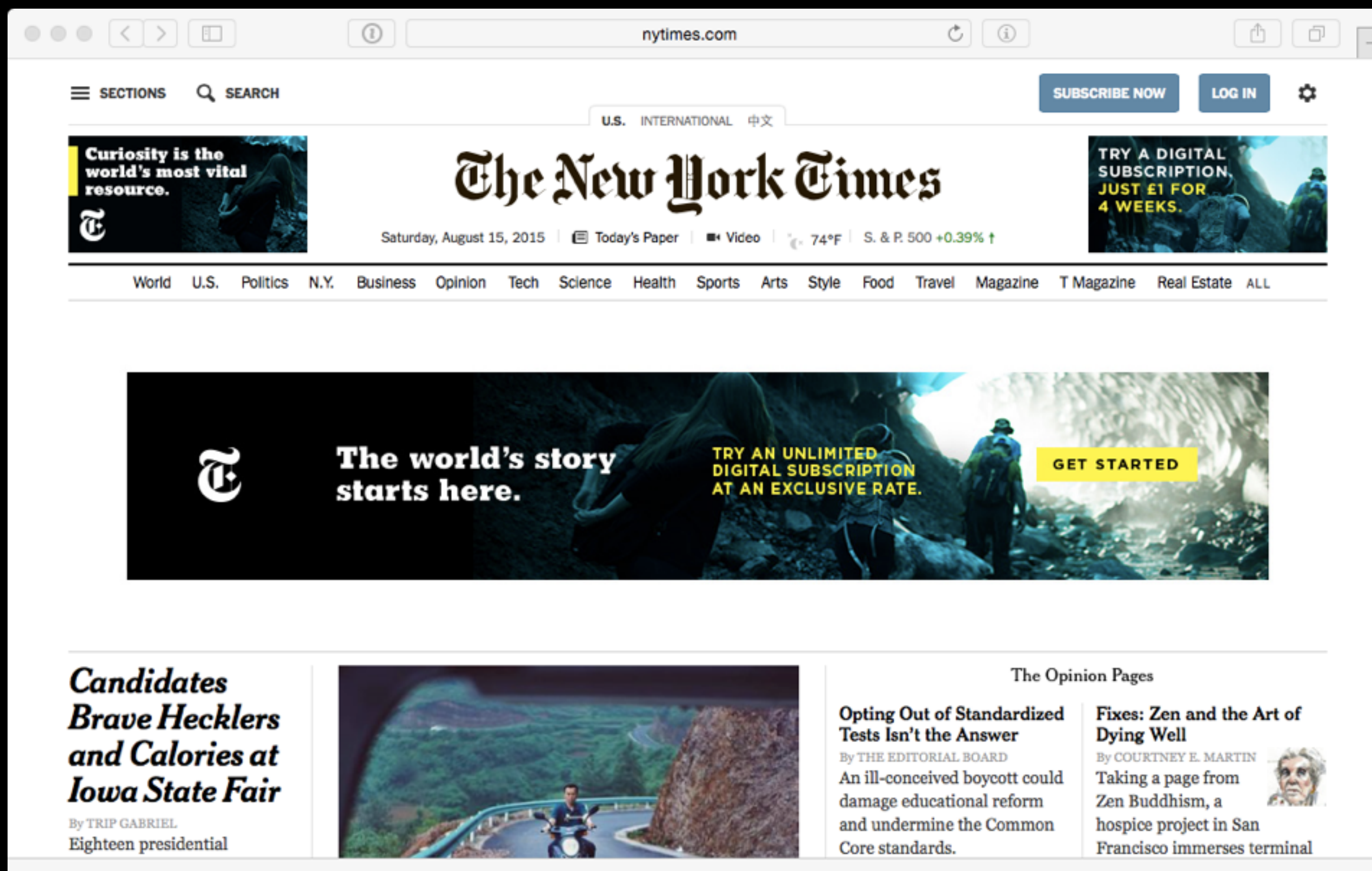
<input type="file">



<textarea>

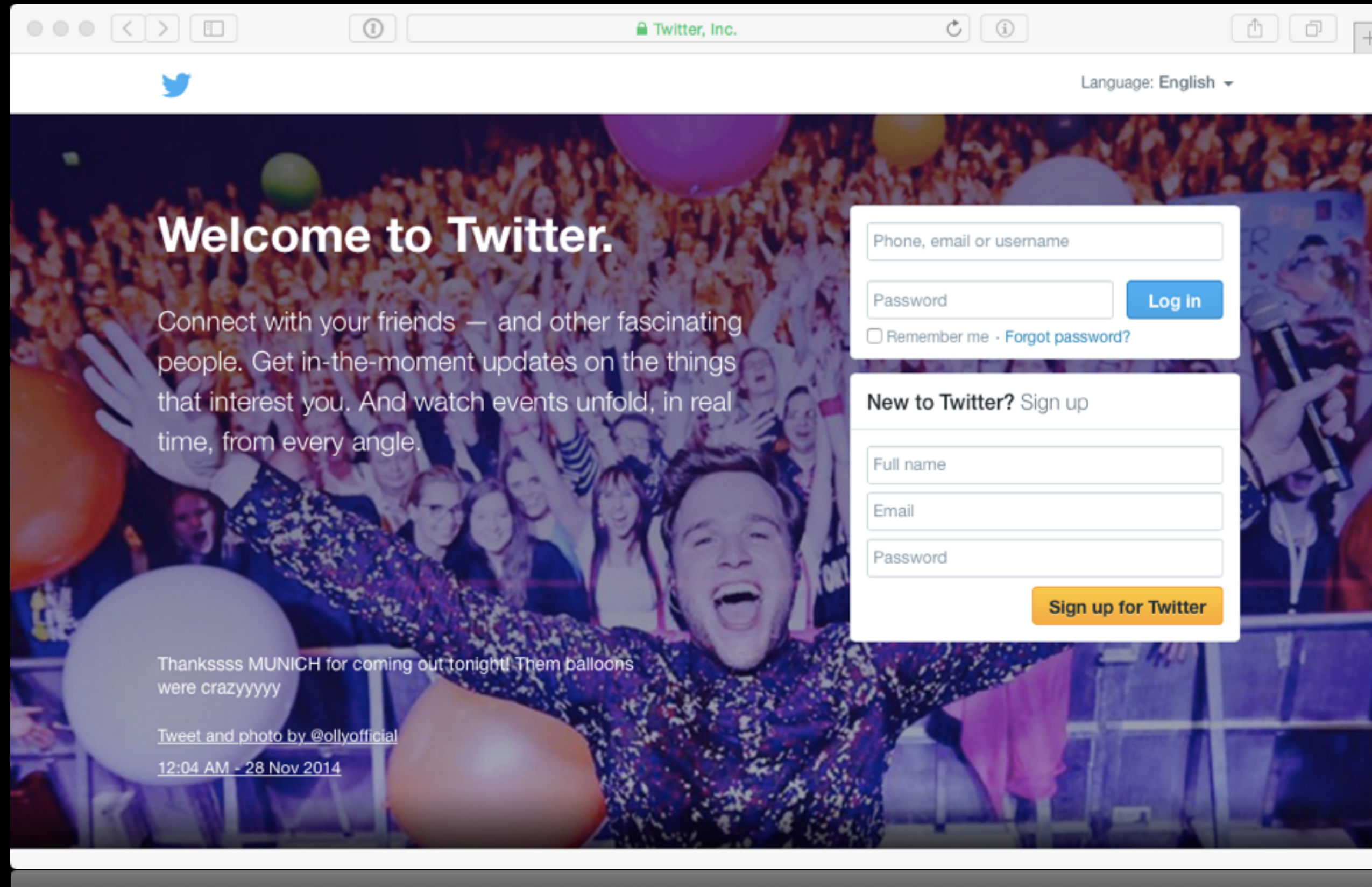


1. Identify core functionality.
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layout

@font-face

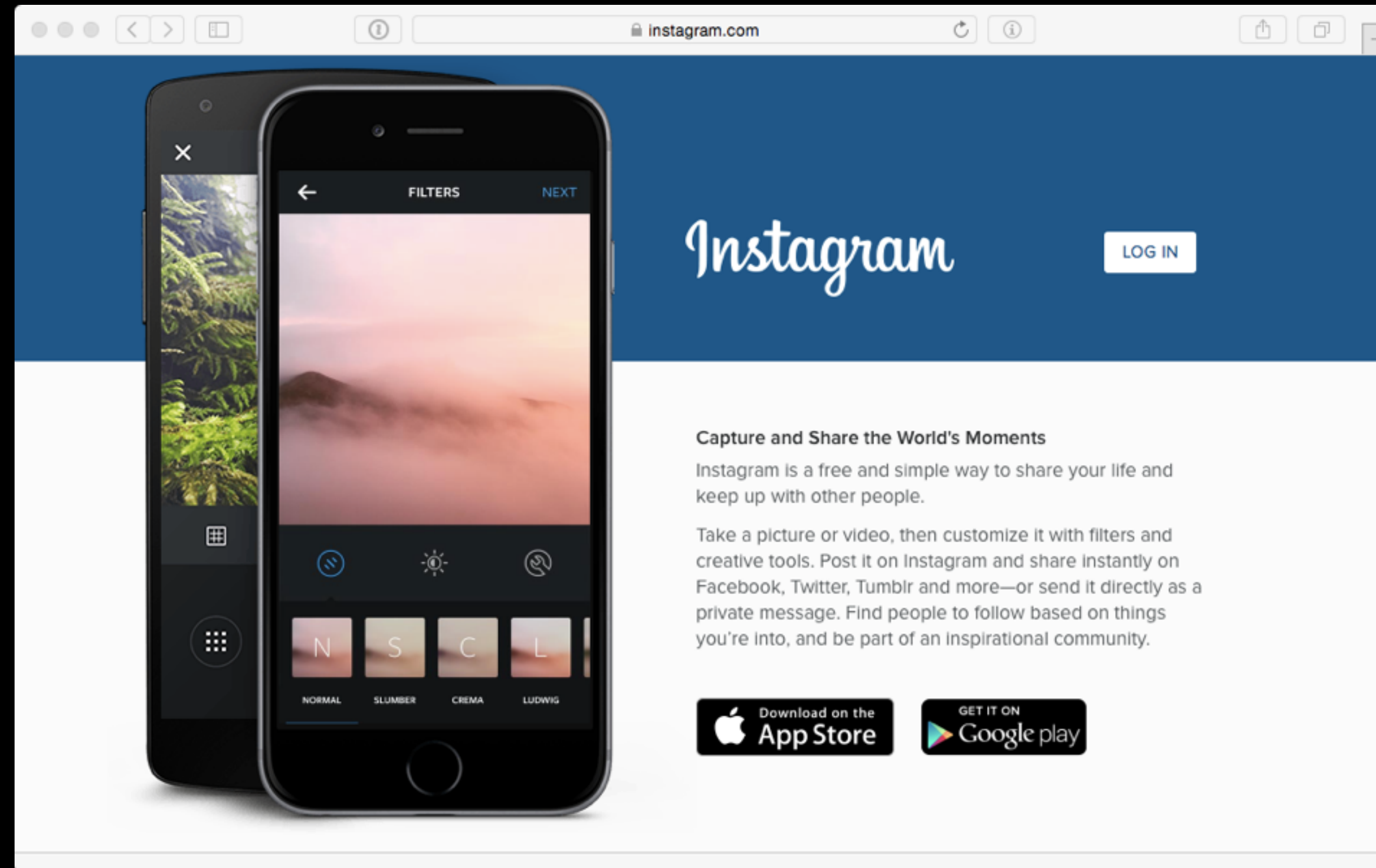


ajax

websocket

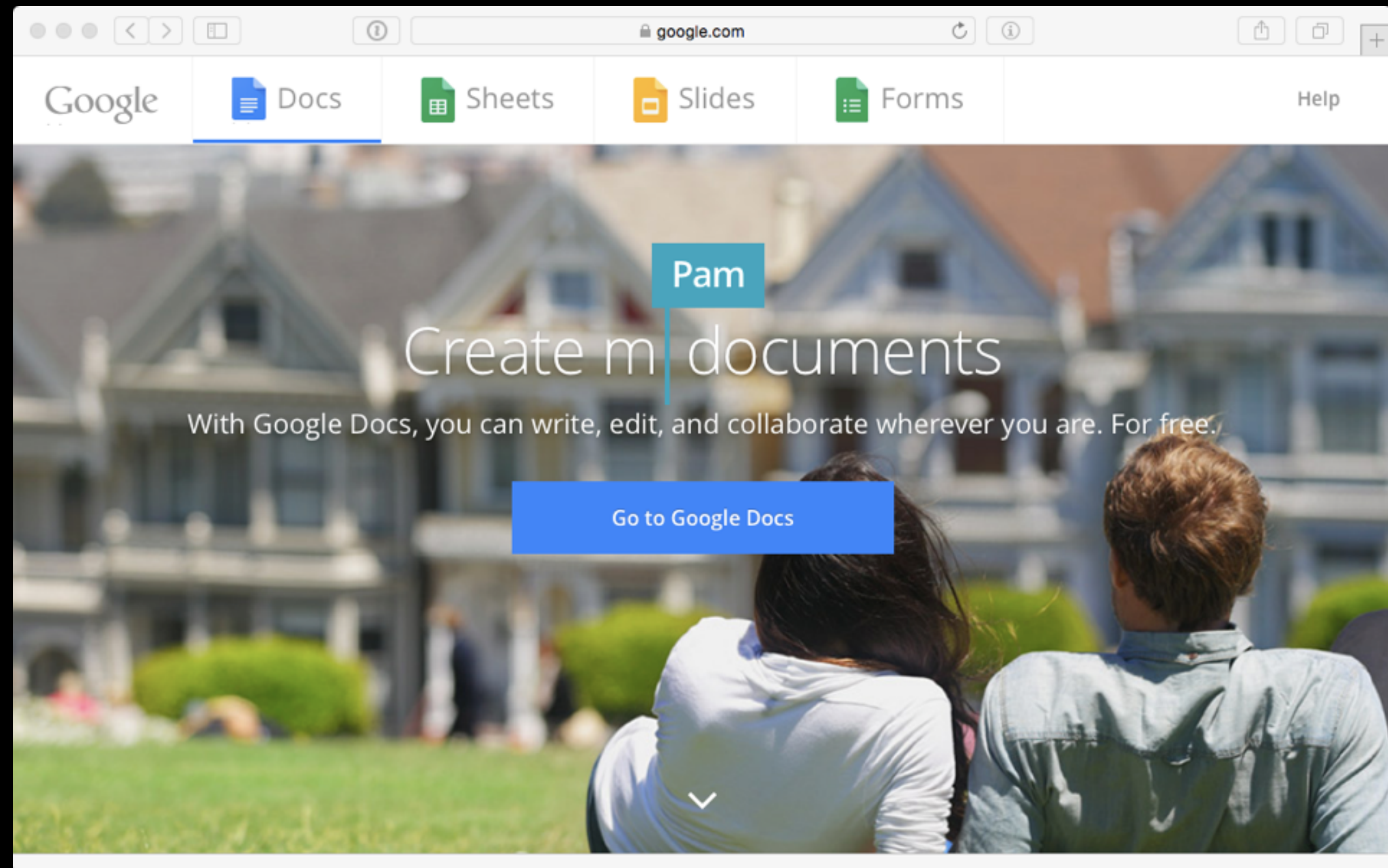
CSS filters

file API



local storage

service
worker



1. Identify core functionality.
2. Make that functionality available using the simplest technology.
3. Enhance!

“This is too easy.”

“This is too hard.”

1. Identify core functionality.
2. Make that functionality available using the simplest technology.
3. Enhance!

developer convenience

user needs

216 colours

Netscape 4

Times New Roman

IE 6

Verdana

Arial

Windows XP

Android 2.x

EVERYTHING IS AMAZING

AND NOBODY'S HAPPY

GET THE YEAR



To meet with a friend or family, talk to the
Language and will be you in a room to get help.
To purchase a product, it's best to sign up
before the opening hours.

GET THE YEAR



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Language and will be you in a room to get help.
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HTTP

URLs

HTML

WWW

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RESILIENCE