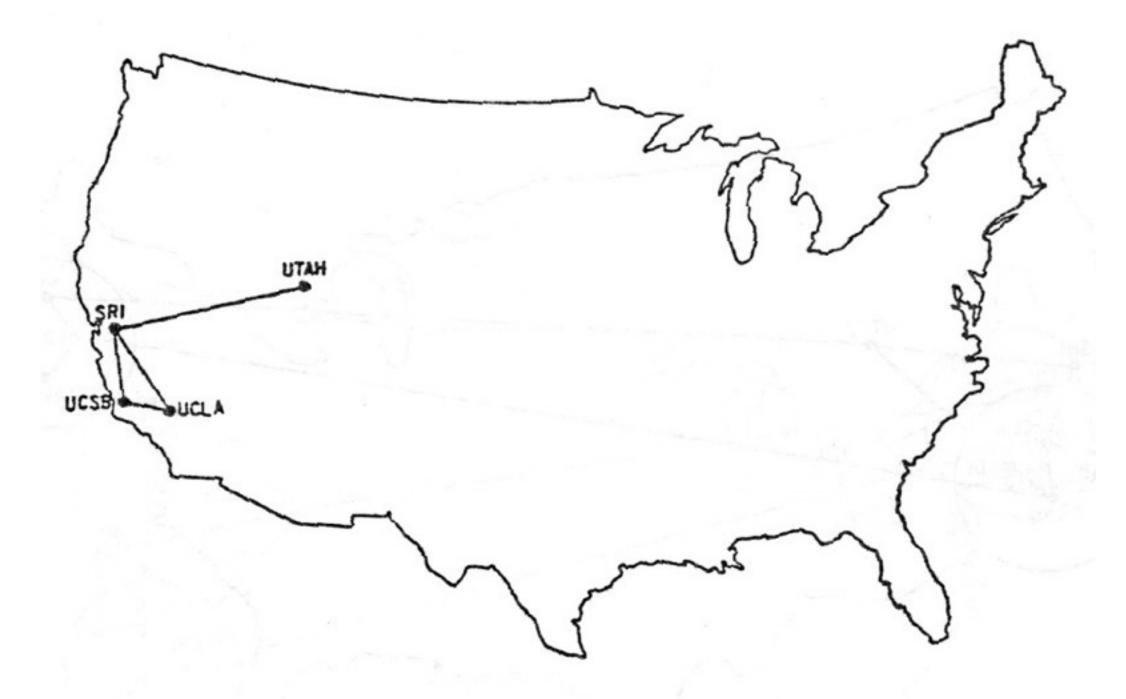
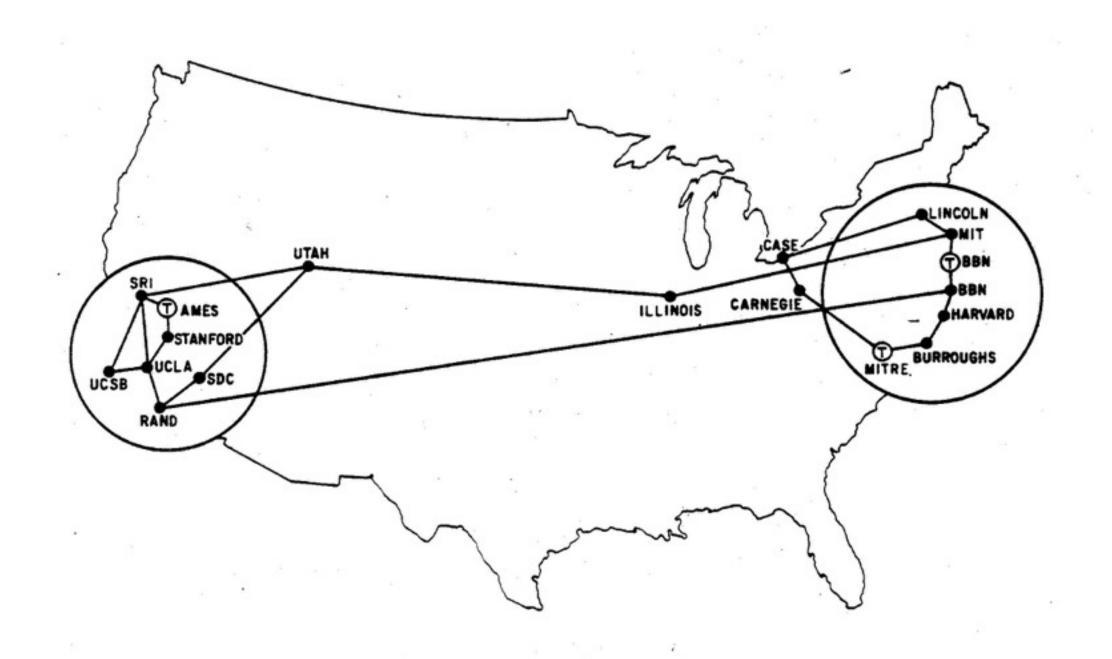
### RESILIENCE

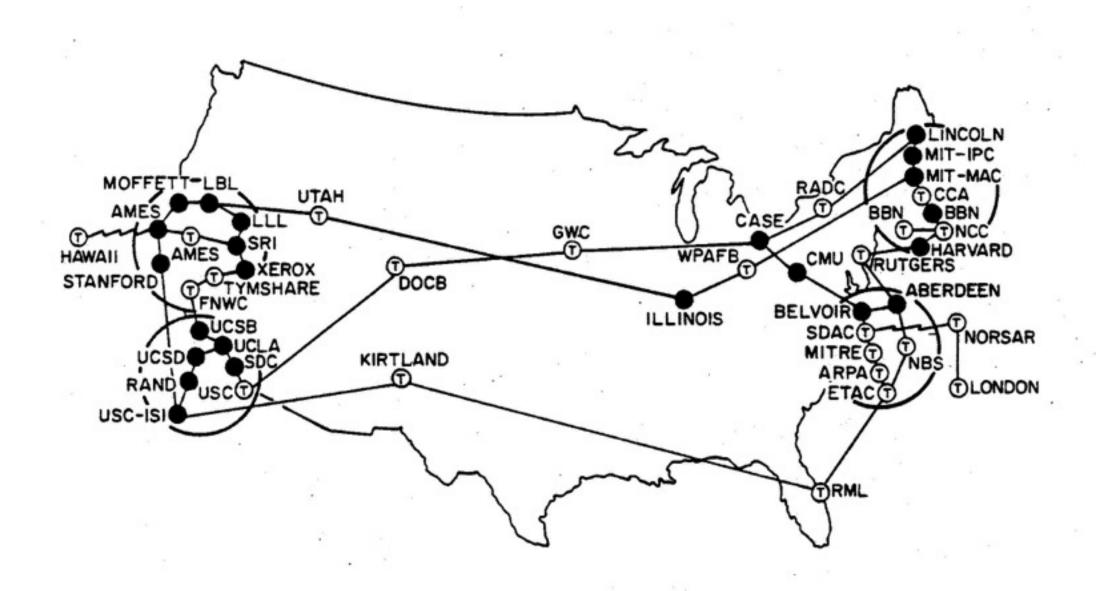


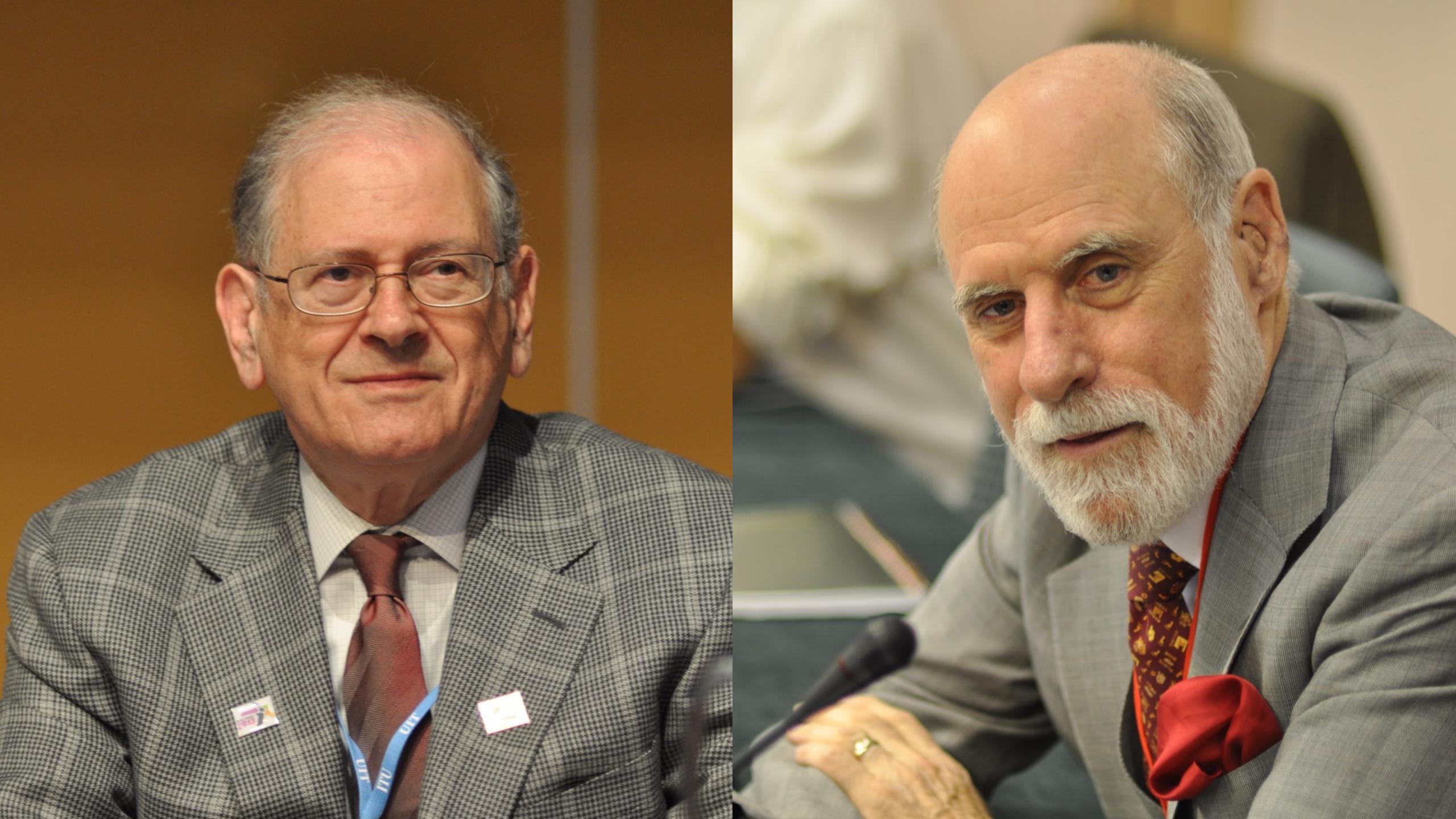


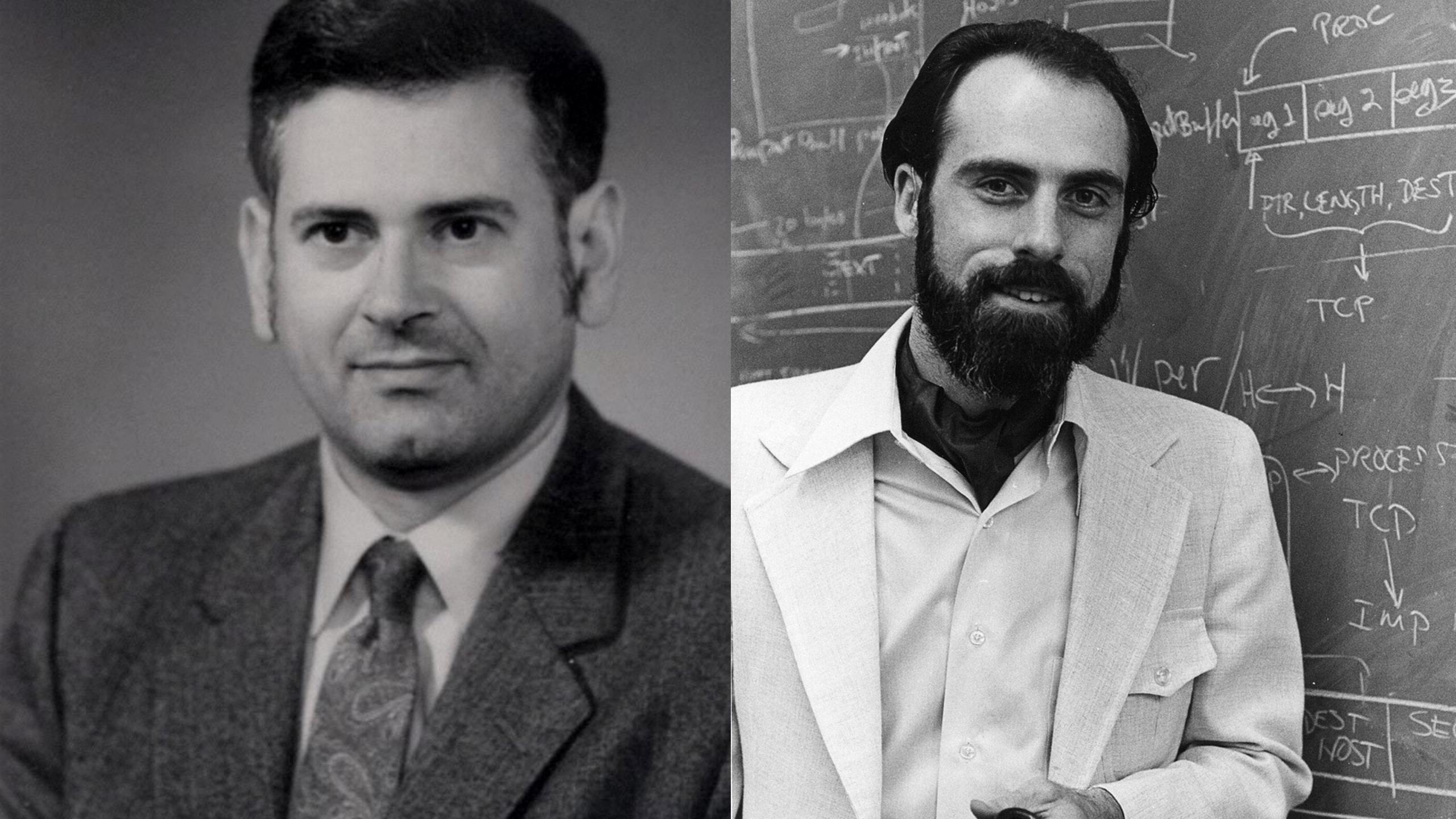
The ARPANET in December 1969

### 









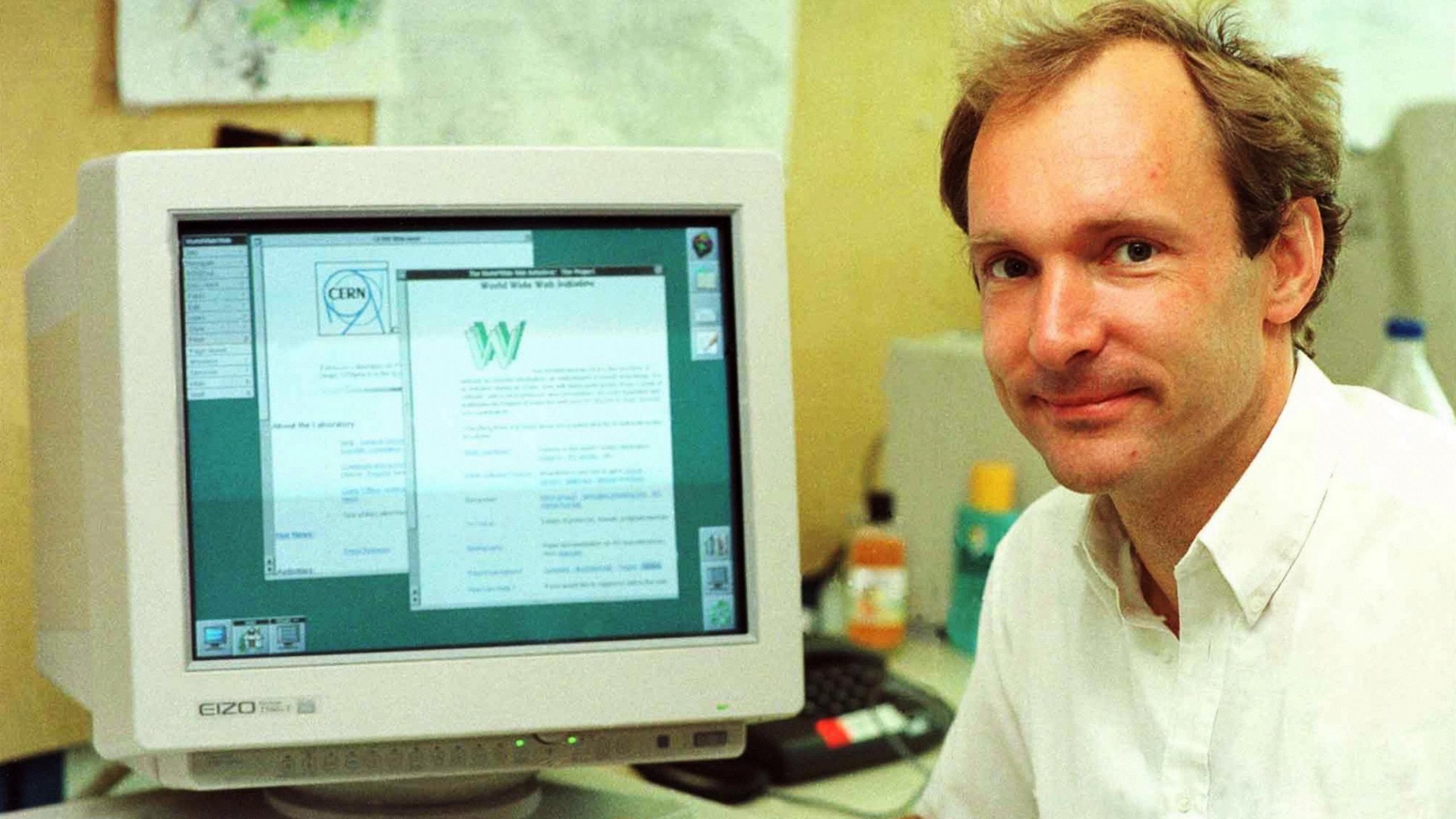
#### Deliver the bits, stupid."

—David Isenberg
"Rise of the Stupid Network"

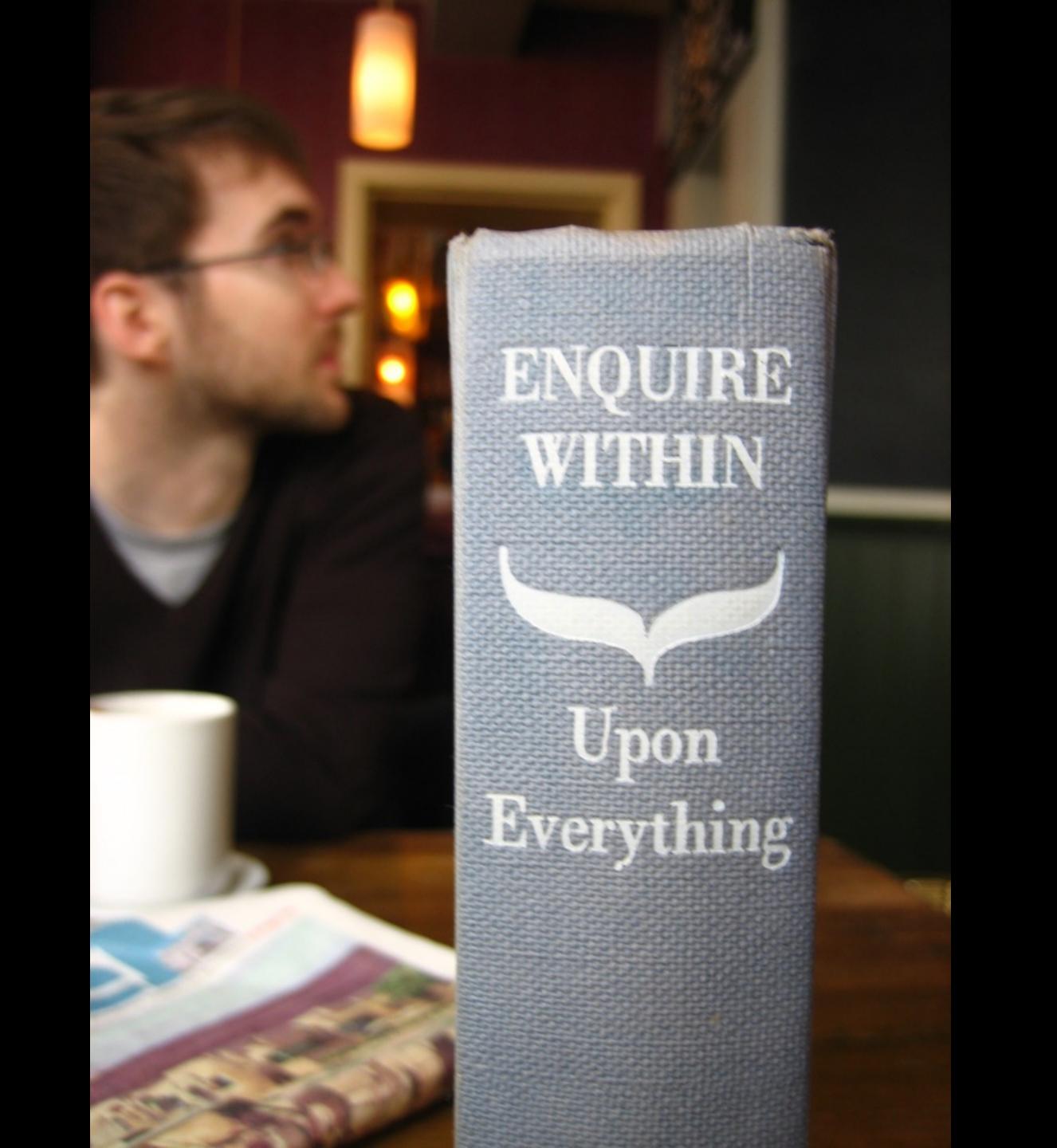
### HTTP email telnet gopher

TCP/IP

# HTTP URLS HTML







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 sytstem.

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



"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

### 

### HTML tags

21 elements

#### HTML 5

### 121 elements

## <div> show me </div>

## <foo> show me </foo>

## <main> showme </main>

### <anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas><anvas<<anvas><anvas><anvas</a><anvas><anvas<<anvas><anvas</a><anvas<<anvas</a><anvas<<anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas</a><anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<anvas<an

### <ing src alt>

### <ing src alt srcset>

cture> <source srcset> <source srcset> <ing src alt srcset> 

### CSS

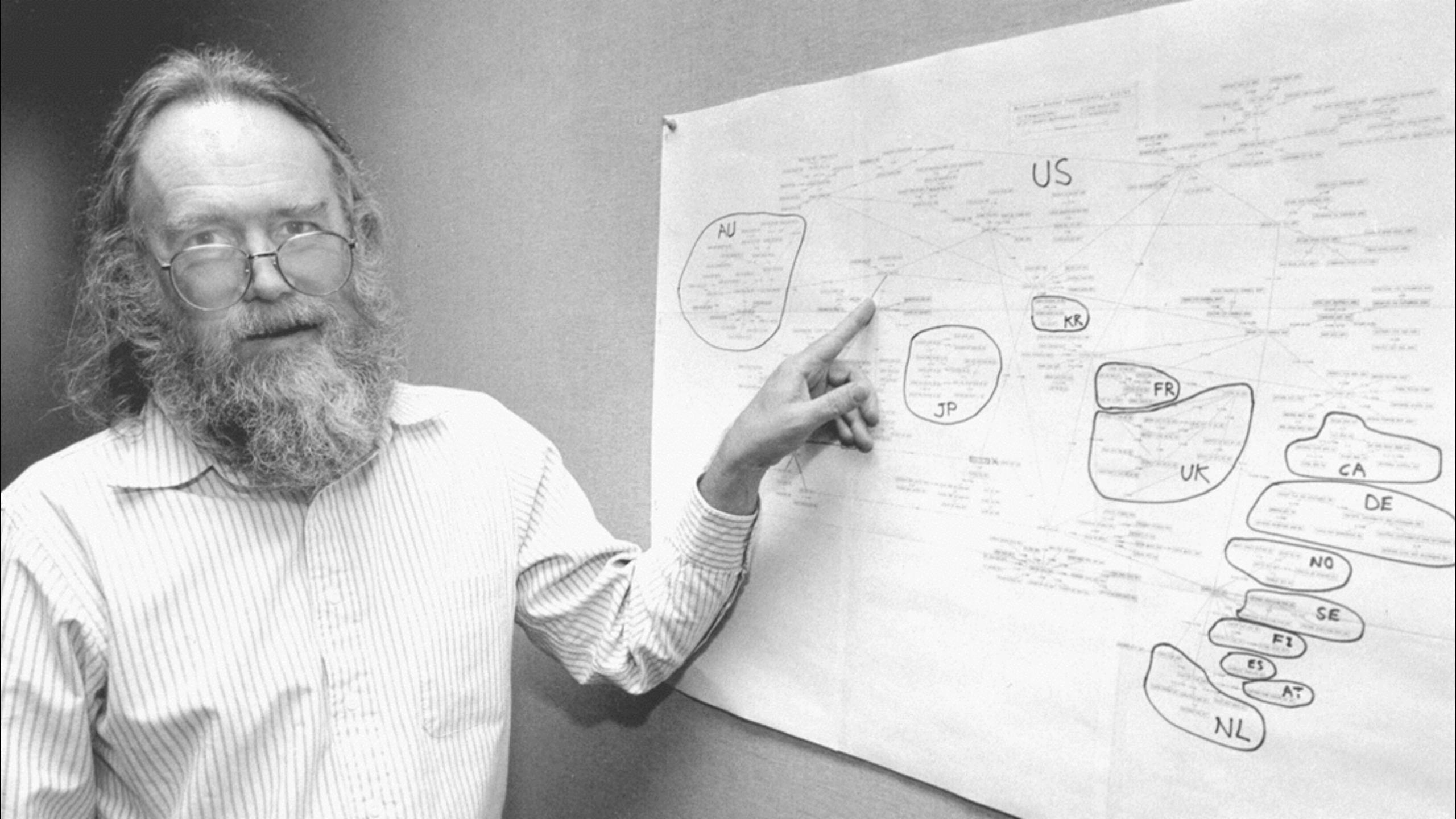
# OOCSS SMACSS BEM

selector {
property: value;

### CSS HTML

"Be conservative in what you send, be liberal in what you accept."

—Jon Postel



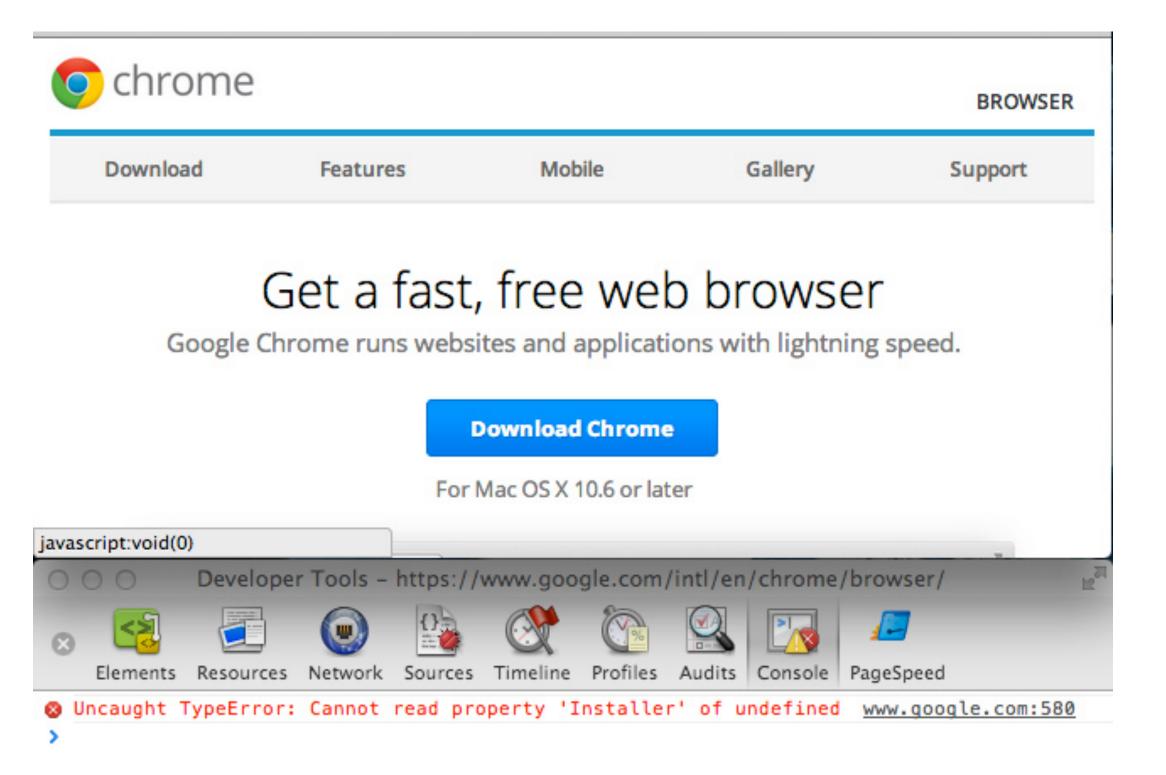
### fragile imperative JavaScript CSS declarative HTML resilient

### fragile

### XHTML 2

### fragile

### JavaScript



# <a href="javascript:void(0)"> Download Chrome



"Anything that can possibly go wrong, will go wrong."

-Edward Aloysius Murphy, Jr.

#### Everyone has JavaScript, right?

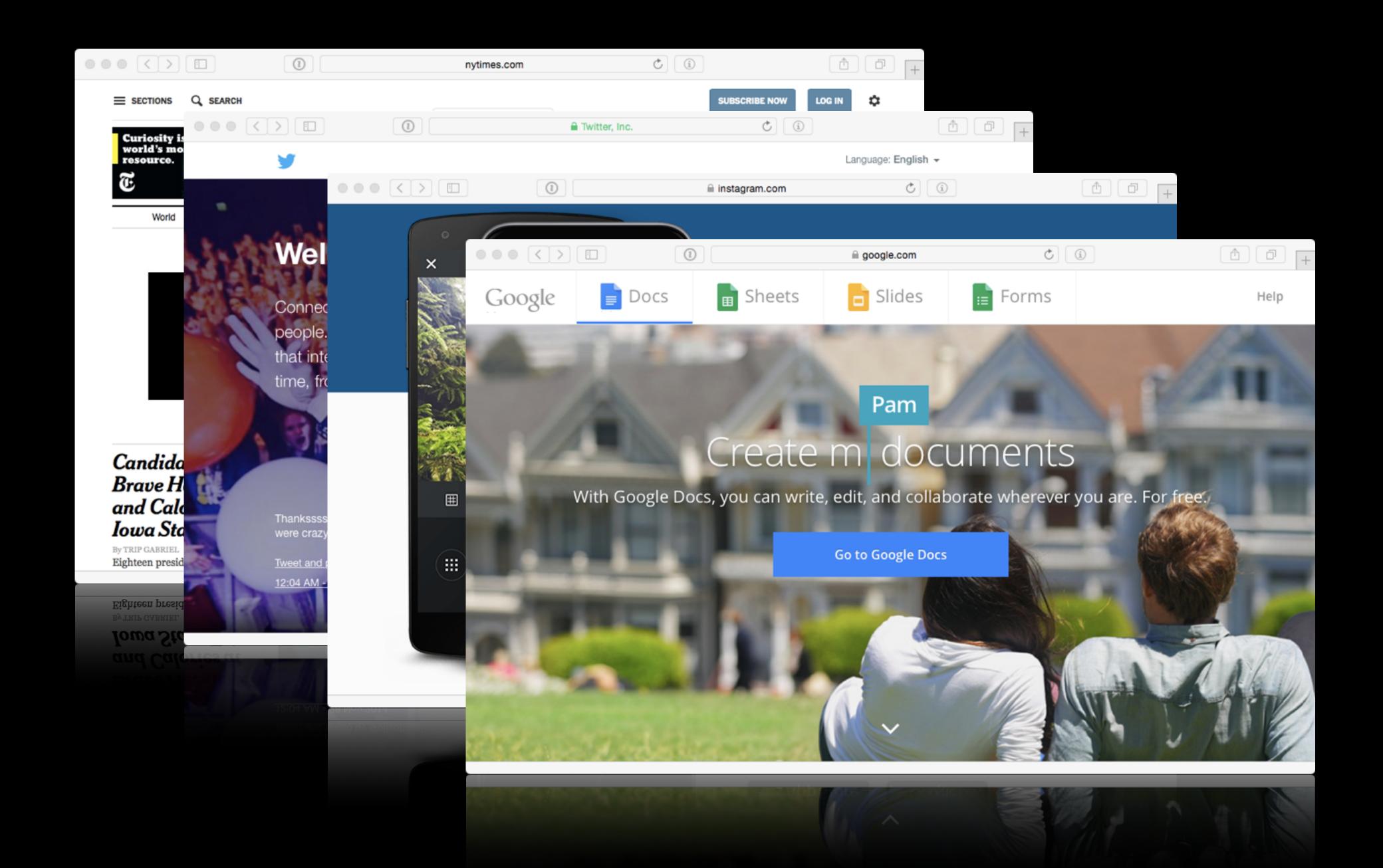
YOUR USER REQUESTS YOUR WEB APP HAS THE PAGE LOADED YET? "All your users are non-JS while they're downloading your JS" — Jake Archibald DID THE HTTP REQUEST FOR THE JAVASCRIPT SUCC€€D? If they're on a train and their net connection goes away before your JavaScript loads, then there's no JavaScript. DID 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?



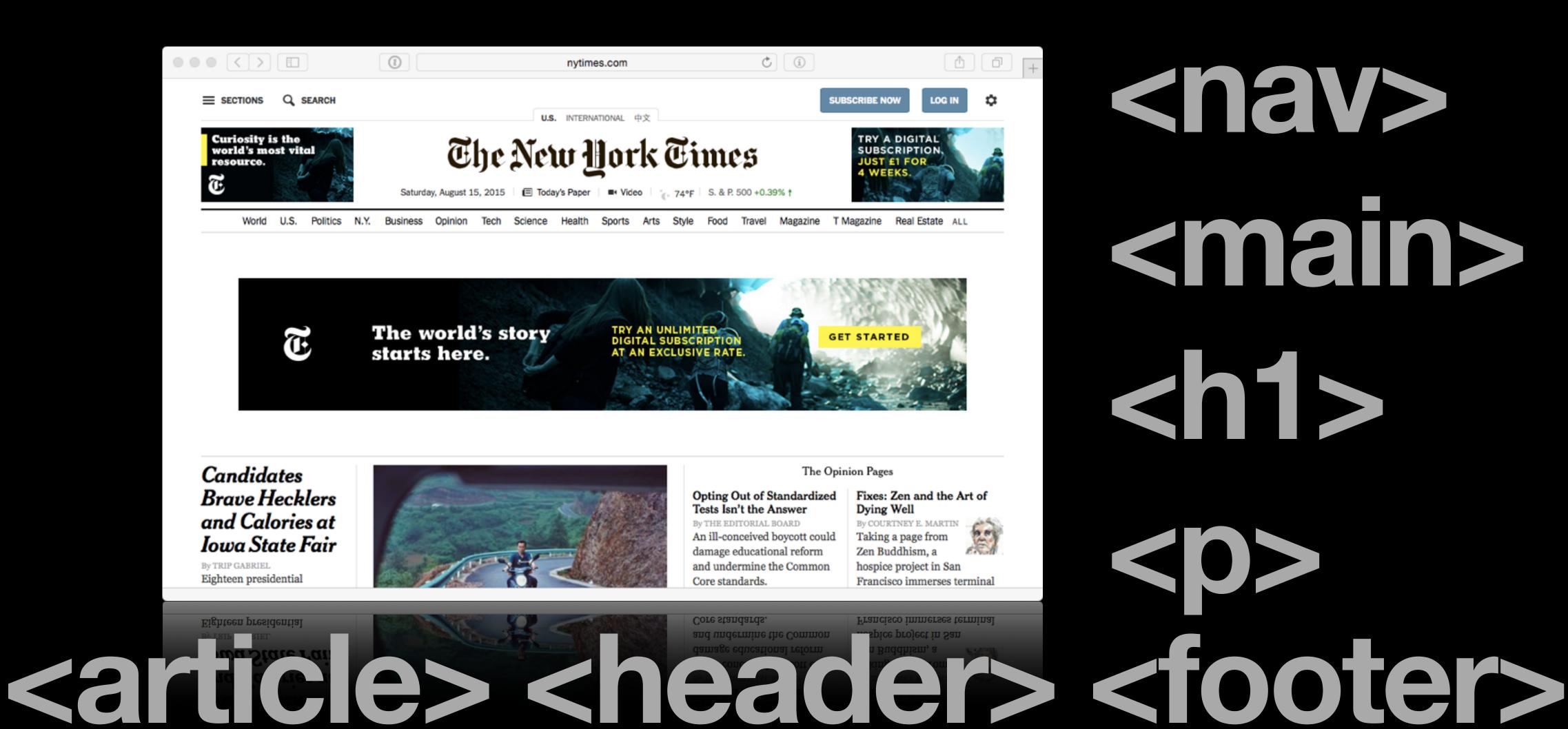
- 1. Identify core functionality.
- 2. Make that functionality available using the simplest technology.

#### 1. Identify core functionality.

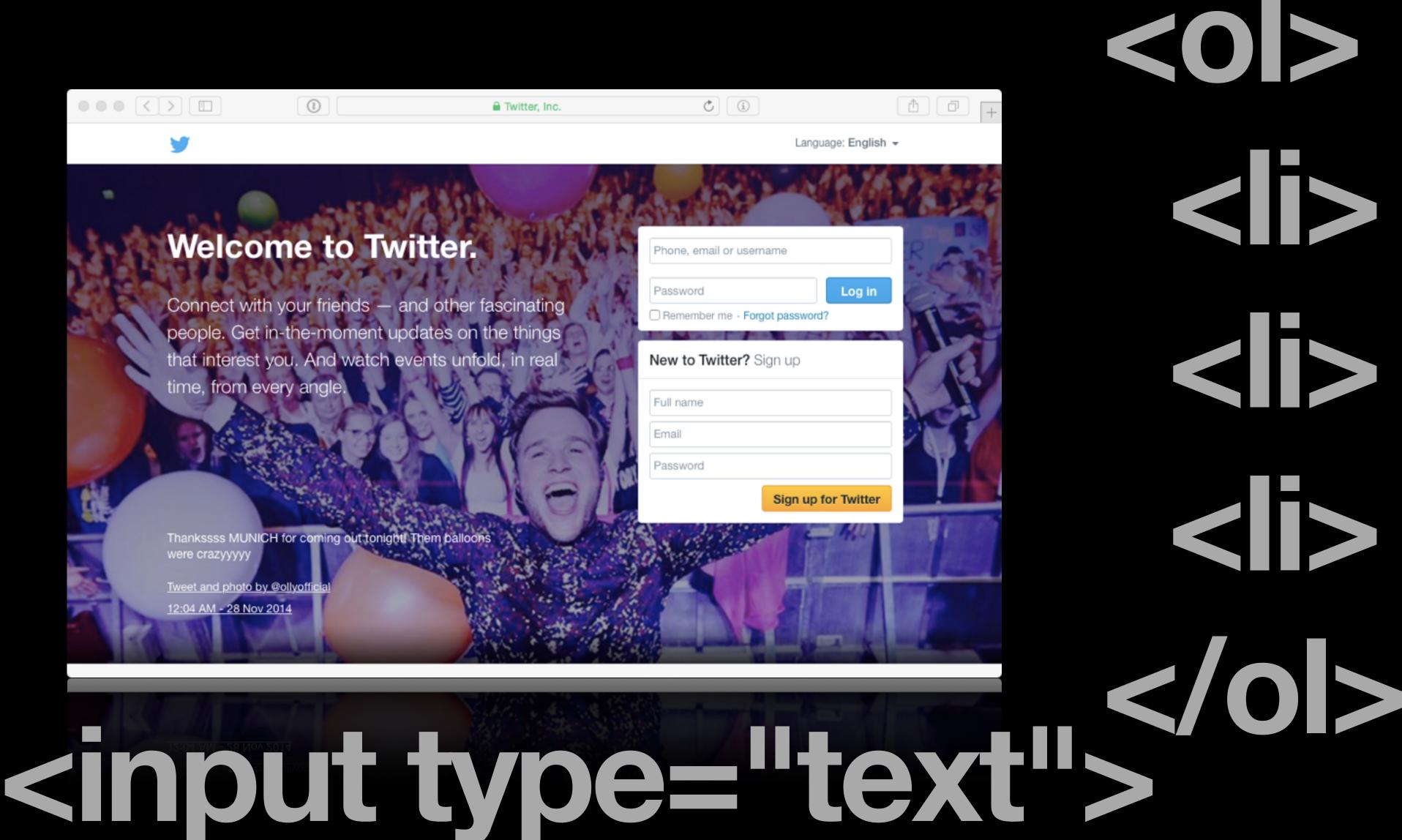
2. Make that functionality available using the simplest technology.



- 1. Identify core functionality.
- 2. Make that functionality available using the simplest technology.

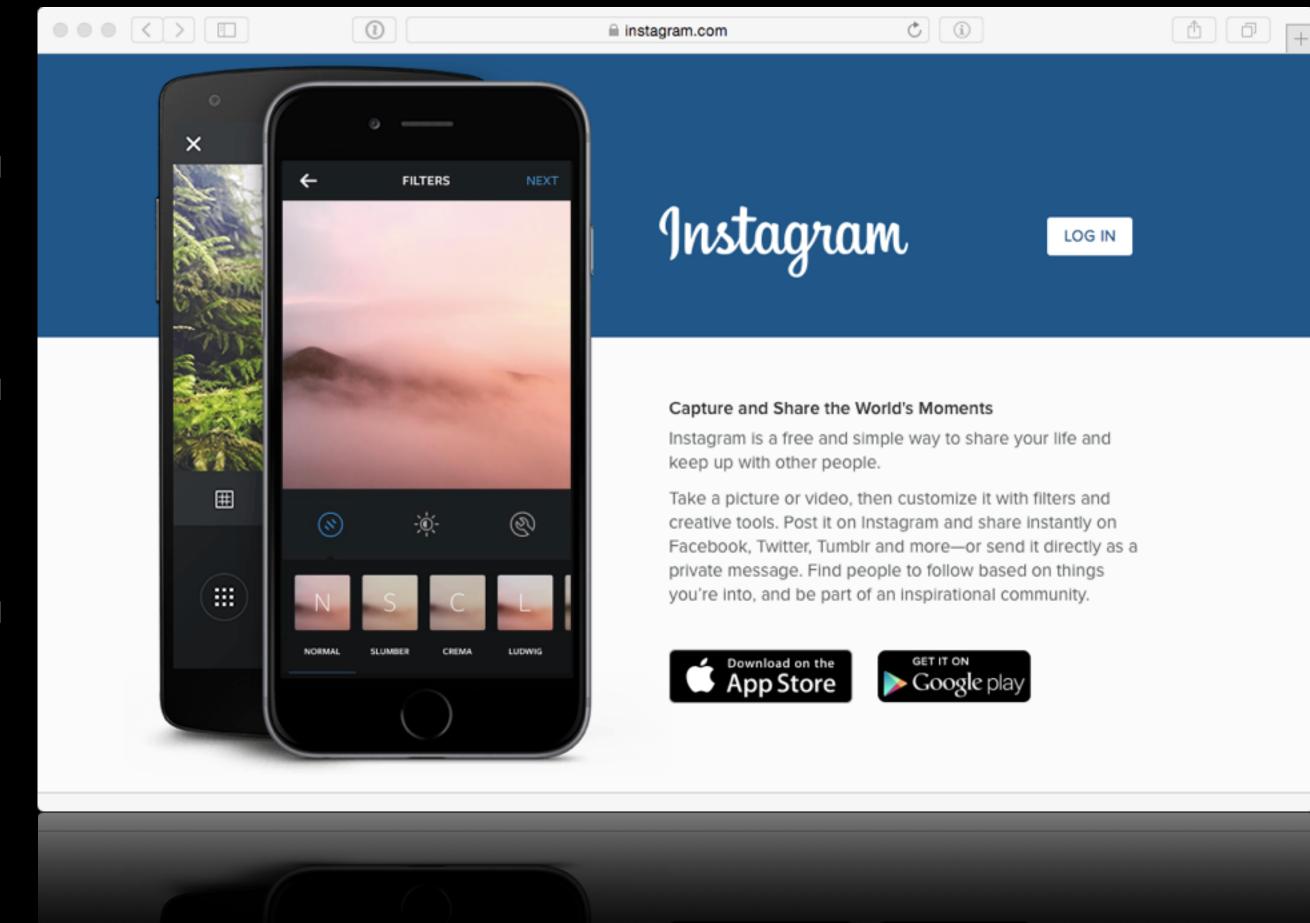


# <nav> <mail>

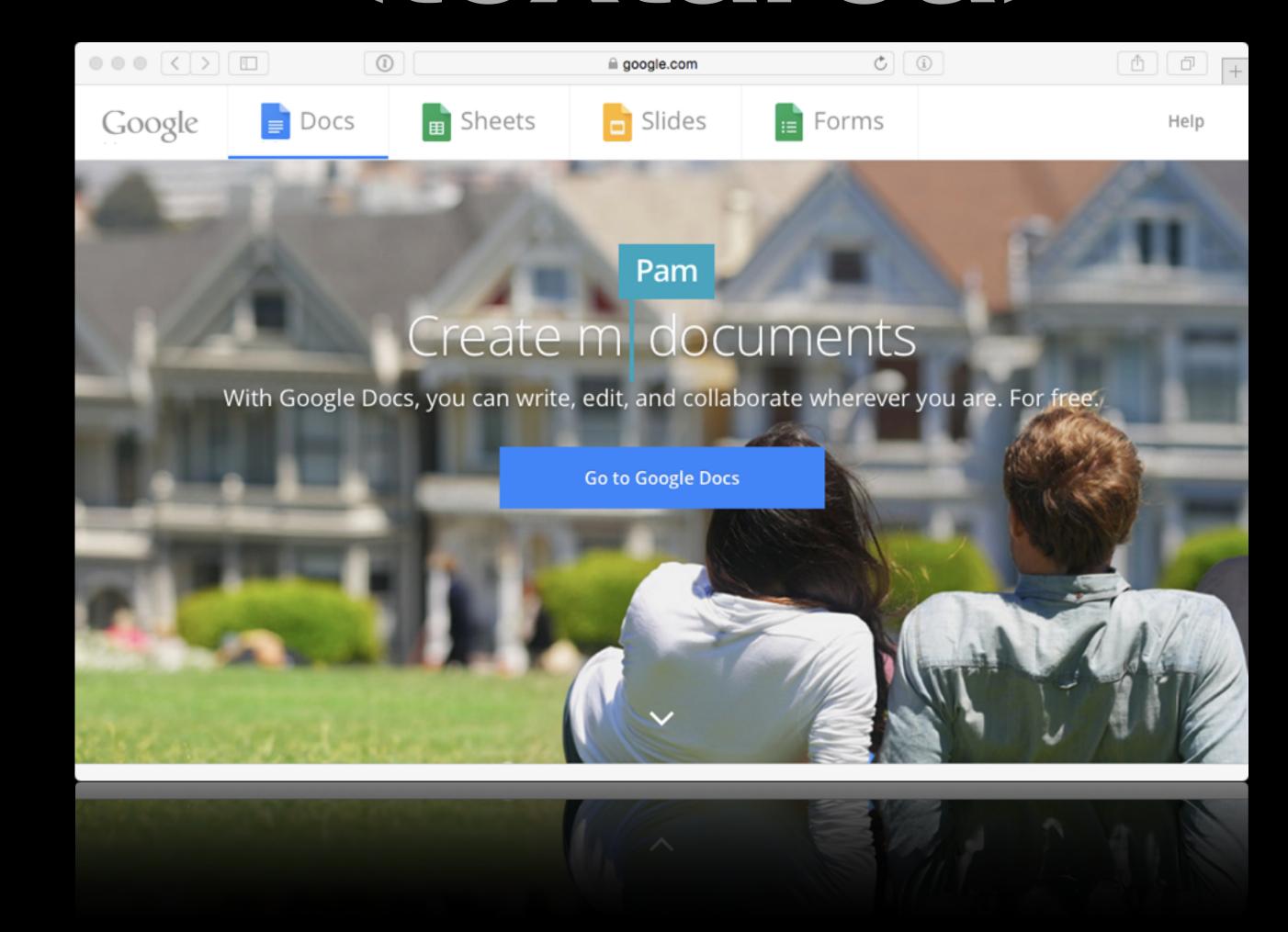


## <input type="file">

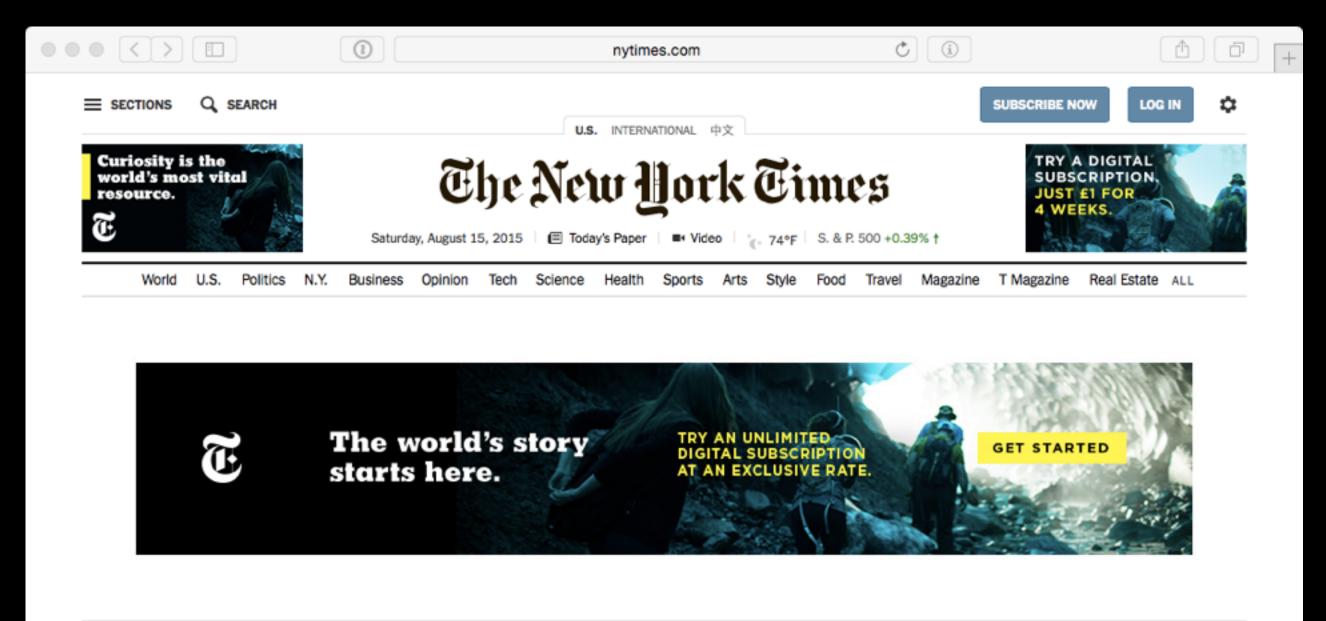
<img><img><img><img><



#### <textarea>



- 1. Identify core functionality.
- 2. Make that functionality available using the simplest technology.



Candidates Brave Hecklers and Calories at Iowa State Fair

By TRIP GABRIEL Eighteen presidential



#### The Opinion Pages

#### Opting Out of Standardized Tests Isn't the Answer

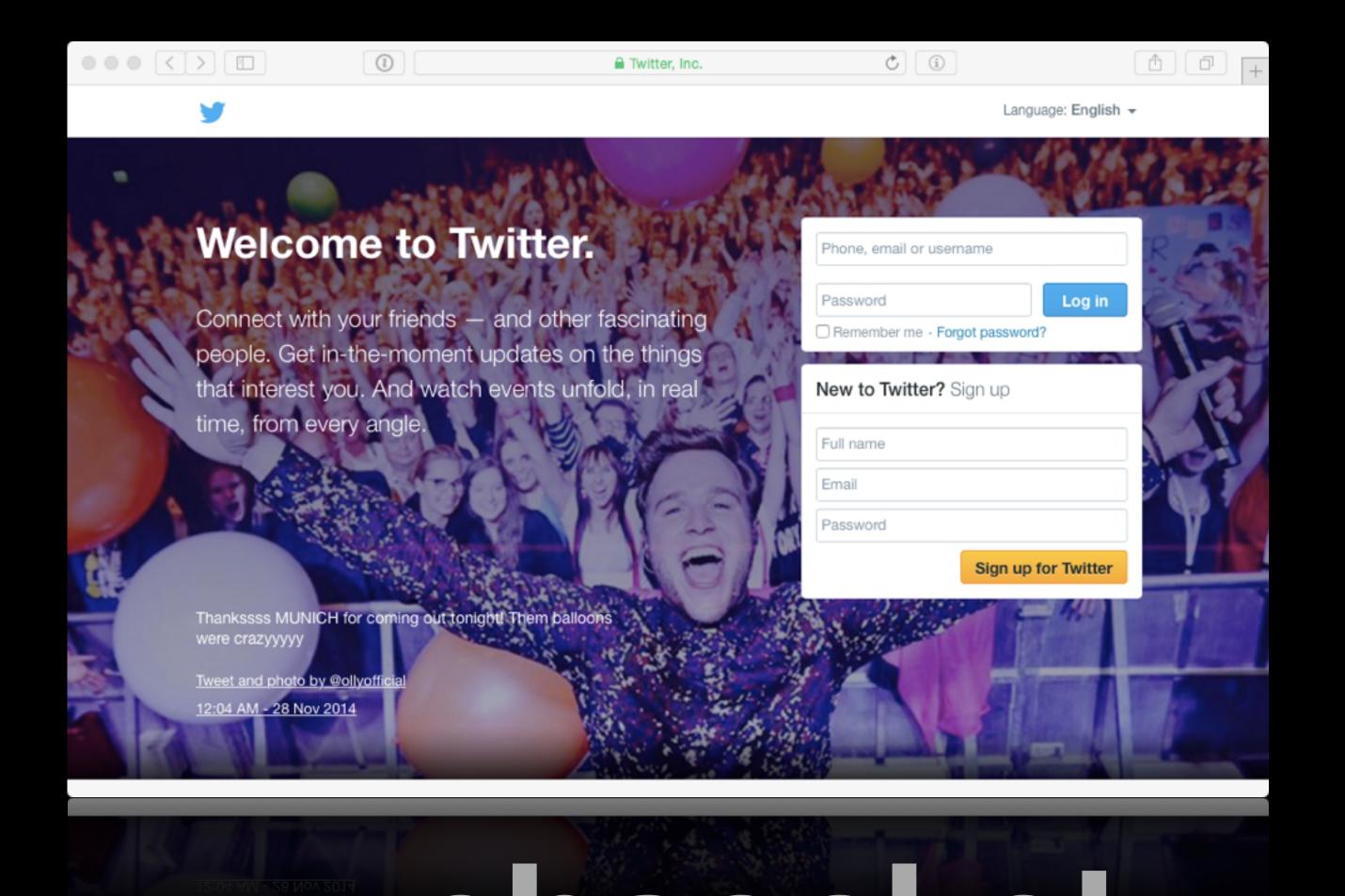
By THE EDITORIAL BOARD
An ill-conceived boycott could damage educational reform and undermine the Common Core standards.

#### Fixes: Zen and the Art of Dying Well

Taking a page from
Zen Buddhism, a
hospice project in San
Francisco immerses terminal

Iowa State Fan Caloures of Control of the state of the st

#### layout

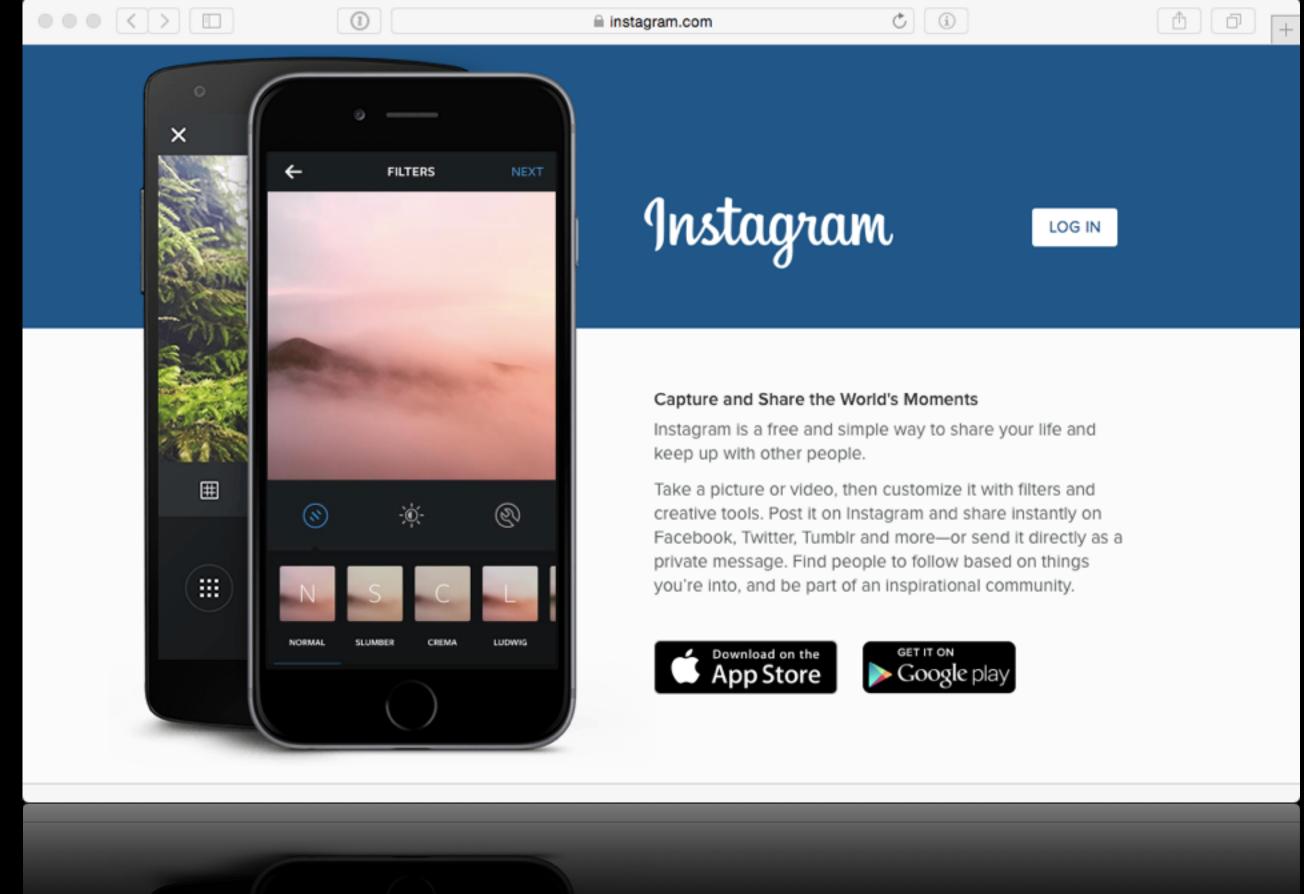


Wedsocket

## ajax

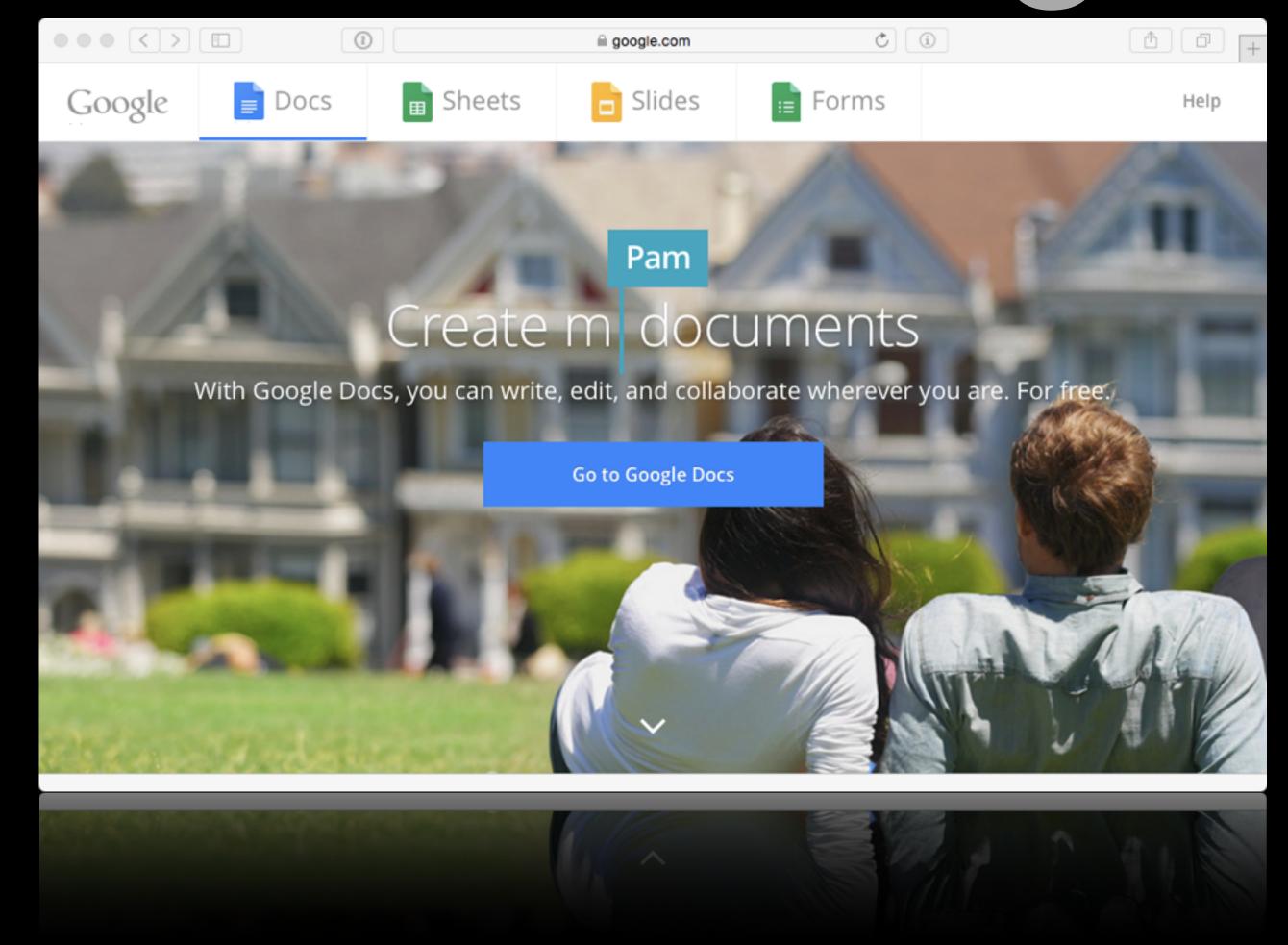
## CSS filters





#### service worker

### local storage



- 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

Times New Roman

Verdana Arial

## 216 colours Netscape 4 IE 6

Windows XP Android 2.x





# HTTP URLS HTML

#### URLS

# RESILIENCE