

# GDES-3091 Interactive Media: Web

Fall 2018

Garry Ing

# Course Description

Learn how to weave a range of online technologies into engaging interactive experiences. In this course, students will learn the basics of web technologies that are fundamental to building an online presence for any design project. Students will learn how to identify the current technologies underlying social media interfaces, mobile web applications that rely on browsers and apps. You will also gain an understanding of the fundamentals of markup languages (HTML, XML) as well as formatting (CSS) and client-side programming (JS). These basic skills will be contextualized within a basic overview of interface design. With the knowledge built in this course students will begin to understand how to create responsive web-based projects that adapt to different devices and develop strategies for creating screen-based interfaces.

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# **Hypertext Markup Language**

# **Extensible Markup Language**

# **Cascading Style Sheets**

# **JavaScript**

# **Course Objectives**

1. Demonstrate an understanding of the appropriate use of web technologies.
2. Apply the current standard in web formatting and programming.
3. Integrate technologies from a variety of web-services.
4. Plan and execute the design of a basic web-based application.
5. Develop an appreciation of the current culture and underlying issues of the web as networked medium as well its implications for artists and designers.

# Course Breakdown

Readings 15%

→  $(4 \times 3.75\%)$

Short & In-Class Assignments 40%

→  $(4 \times 10\%)$

Major Assignments 35%

→  $(2 \times 17.5\%)$

Attendance and Participation 10%

Total 100%

# **Course Load**

Full Course Load > Full Time Job

5 Courses = Minimum 50 Hours

10 Hours per Course per Week

Subtract 3 Hours of Class Time

7 Hours of Homework per Week

# **Office Hours**

Fridays, 11:30am–12:30pm

→ Room 620, 100 McCaul St.

Additional office hours can be scheduled if requested.

→ [ging@faculty.ocadu.ca](mailto:ging@faculty.ocadu.ca)

# Hello World

Think of technology as a verb,  
not a noun

Red Burns

Sharing by default

Open Source by default

The best software or hardware ever designed cannot calculate a tiny fraction of relationships that exist in a simple pond.

Red Burns

Metadata is a love note  
to the future

Documentation is a love note  
to the future

# Designers as developers

# Developers as designers

Often when designers start working with computation as a medium, there's a tendency to shut off their design instincts, because they're in this foreign and “technical” space.

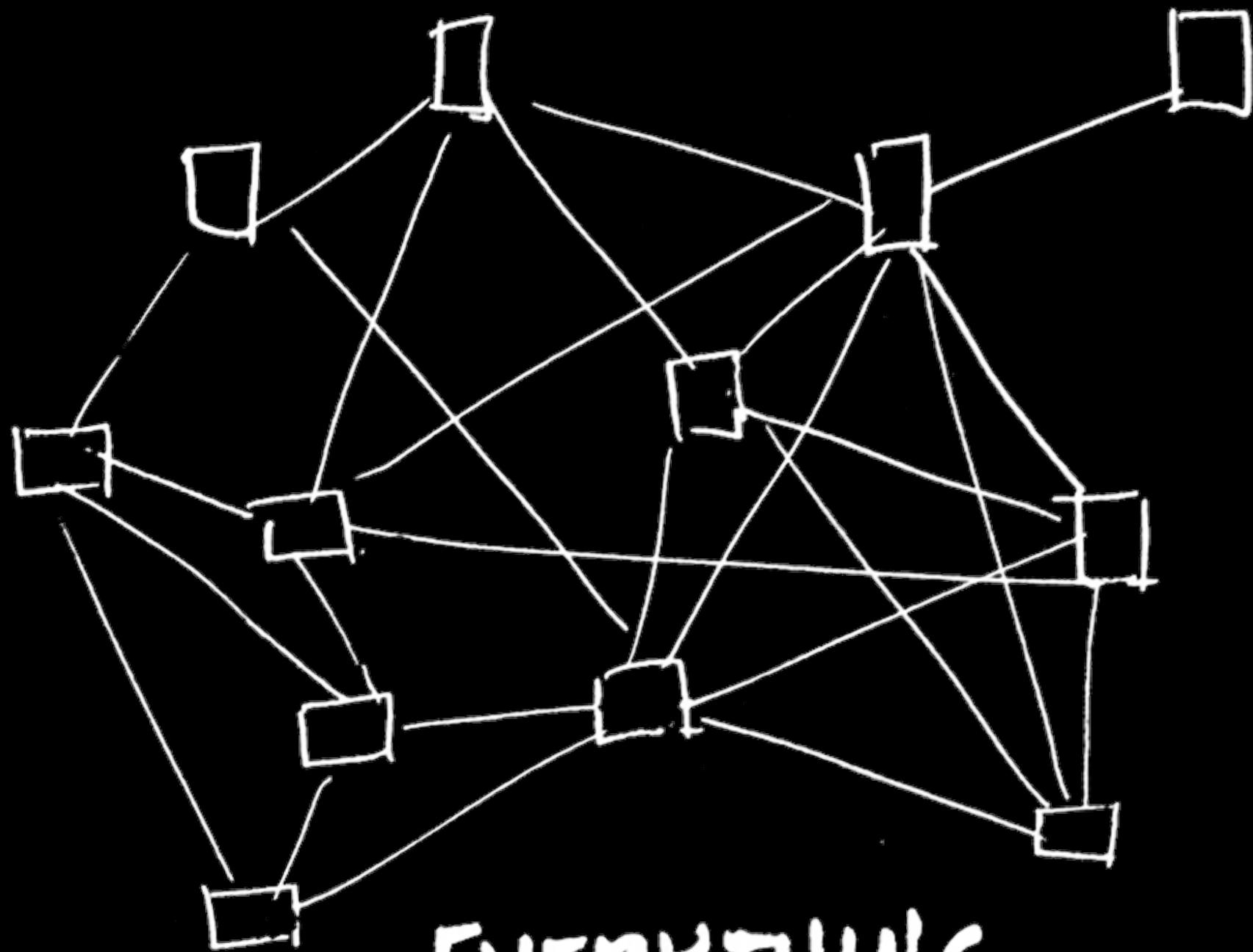
Ben Fry on Muriel Cooper

To make the transition you need to keep your critical eye and treat computation as just another medium—as imperfect as any other—and learn to work within its constraints while challenging yourself to overcome them.

Ben Fry on Muriel Cooper

These came from an approach grounded in fields like photography, film, and typography, and a desire to make this cold medium a bit more humanistic.

Ben Fry on Muriel Cooper



## EVERYTHING IS DEEPLY INTERTWINED.

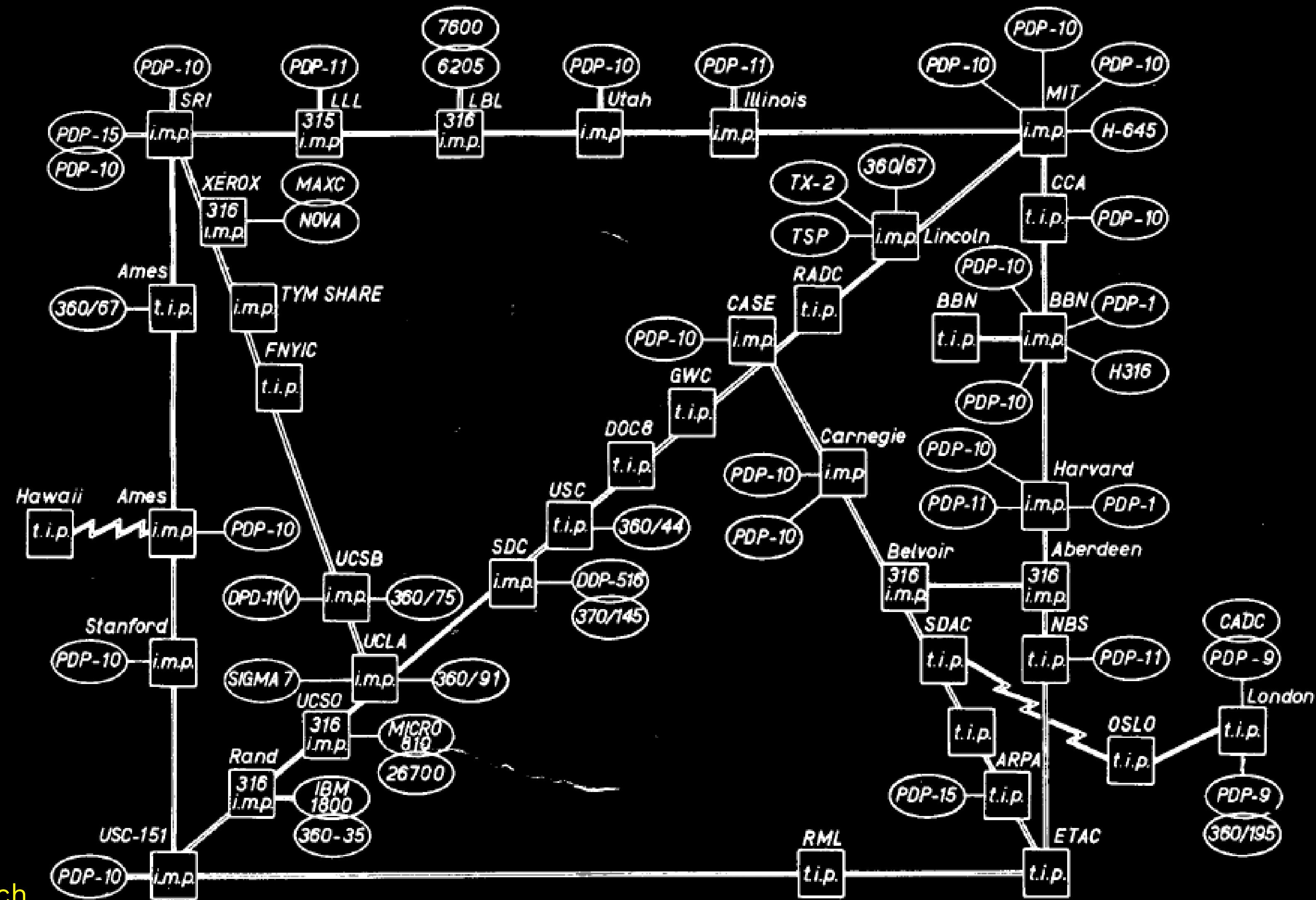
*In an important sense there are no "subjects" at all; there is only all knowledge, since the cross-connections among the myriad topics of this world simply cannot be divided up neatly.*

*Hypertext at last offers the possibility of representing and exploring it all without carving it up destructively.*

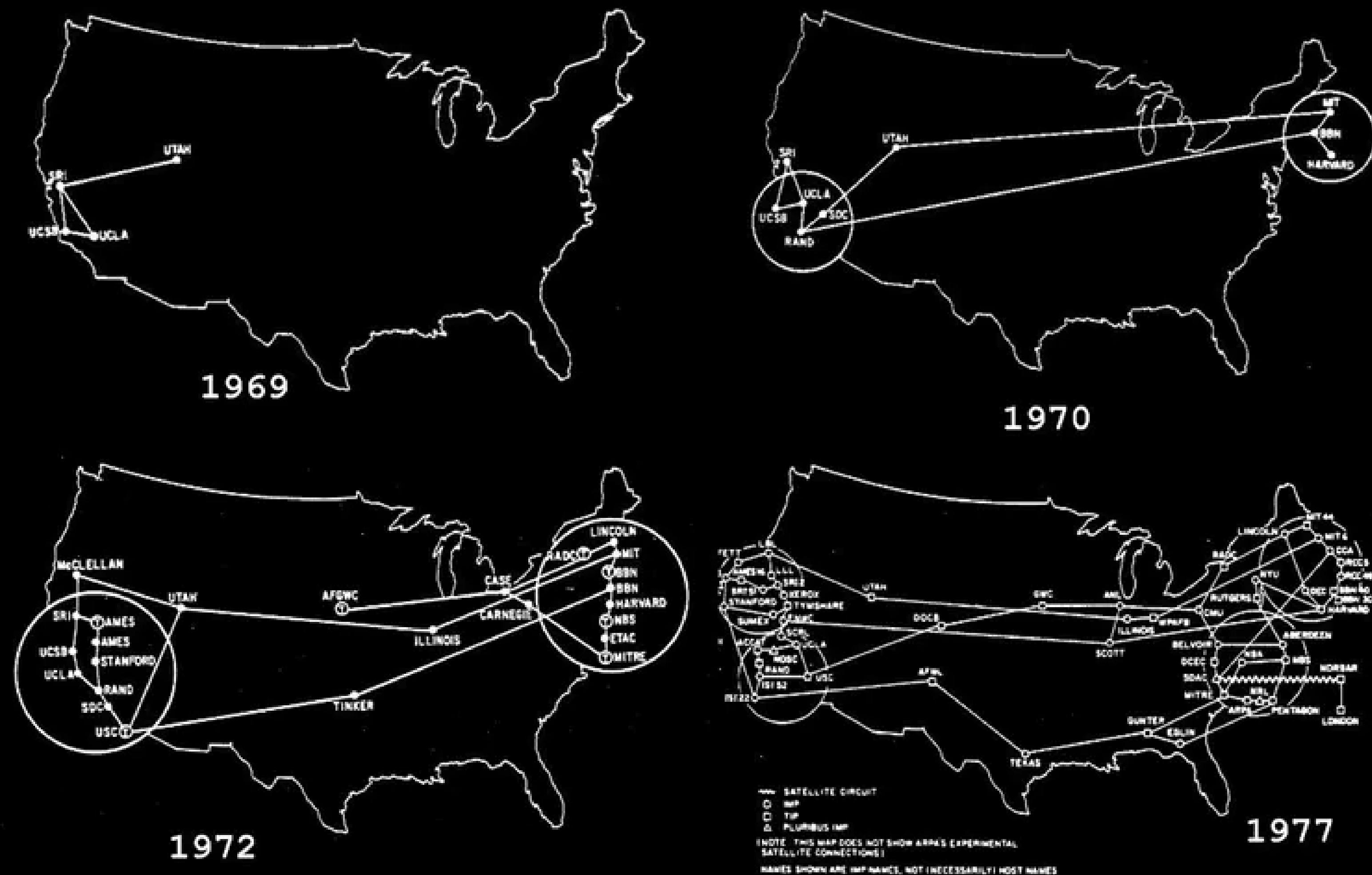
Ted Nelson  
Computer Lib/Dream Machines, 1974

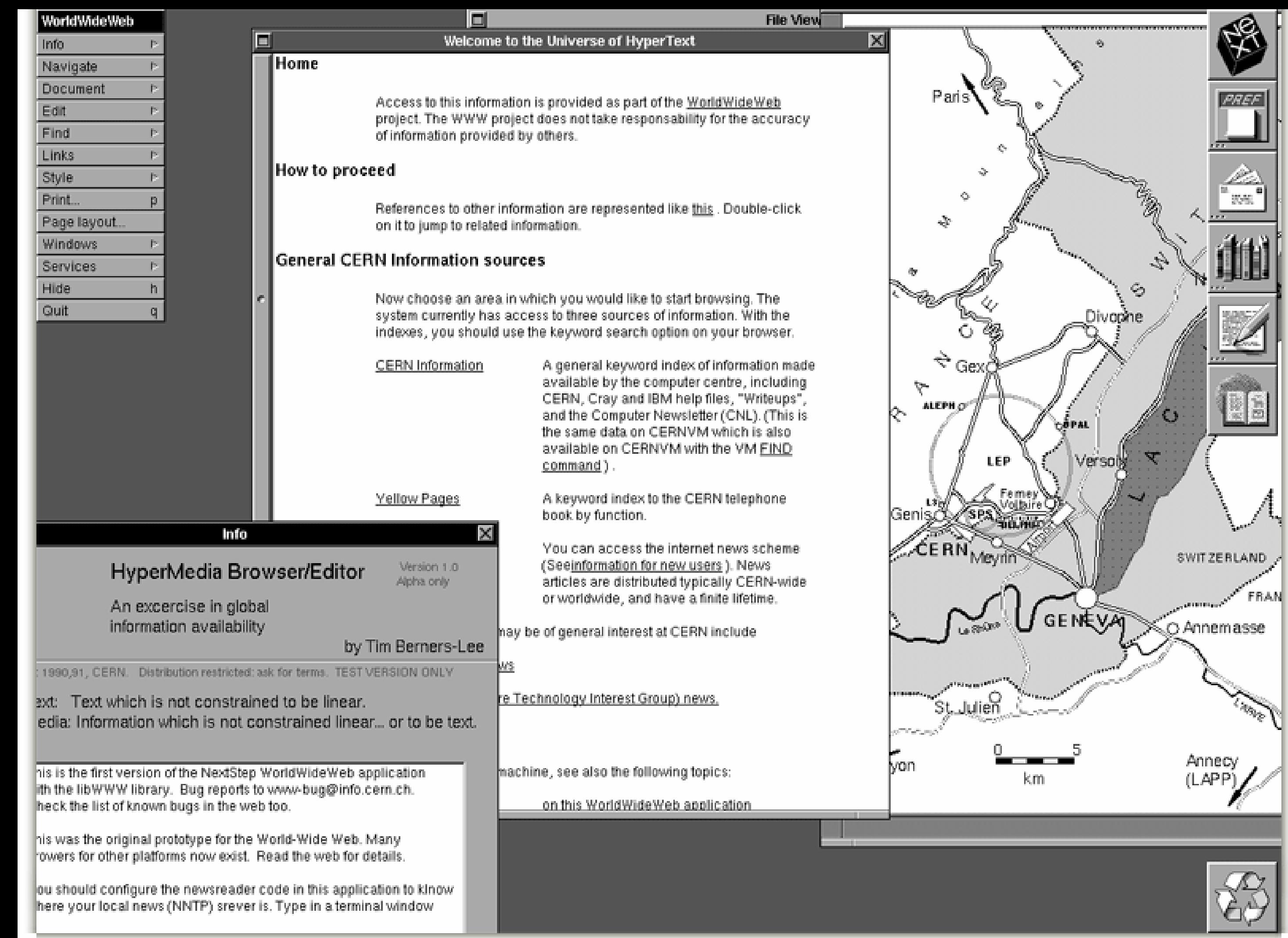
Teletype  
The Canadian Press, 1963



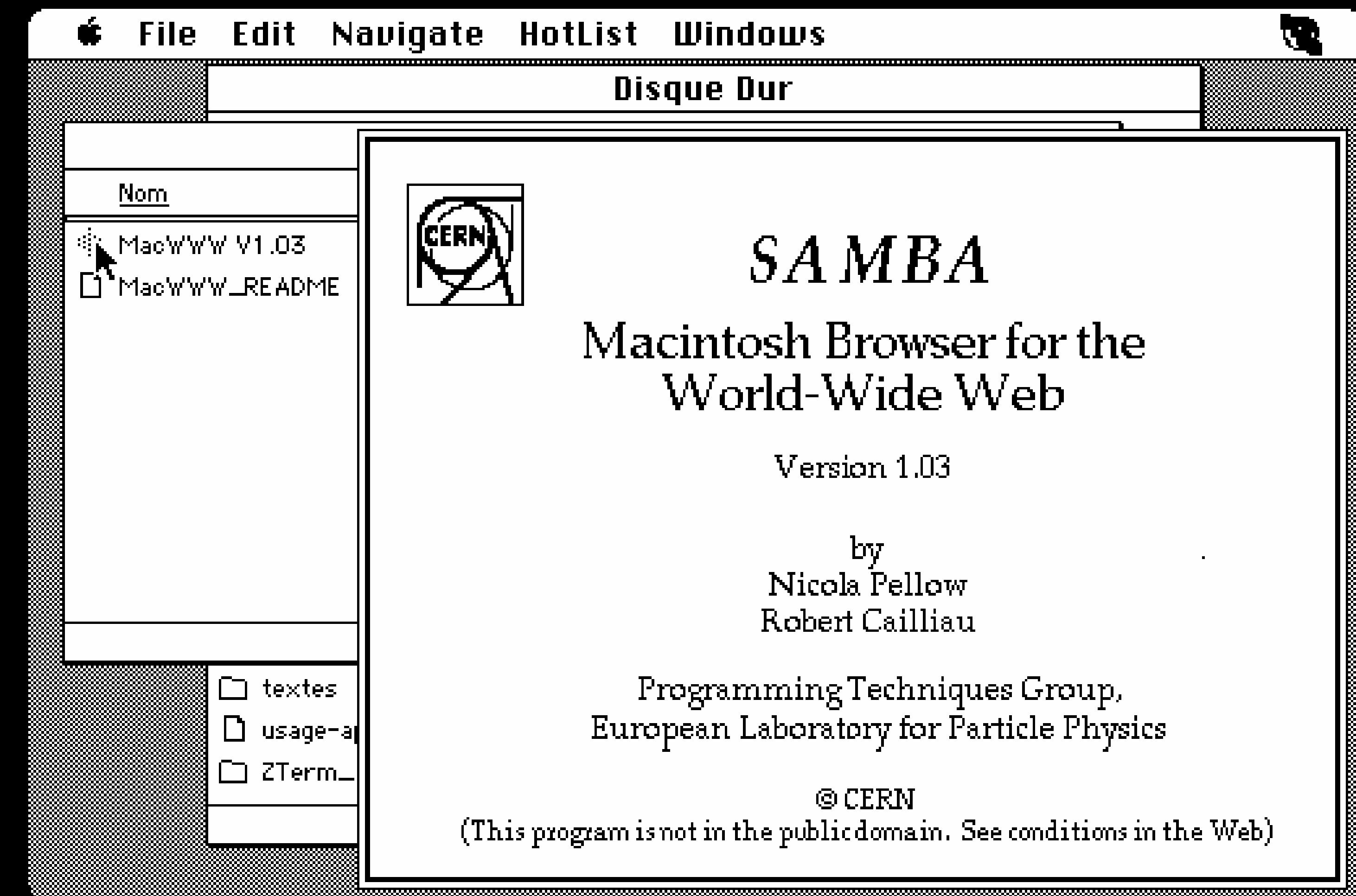


The Advanced Research  
Projects Agency Network (ARPANET)

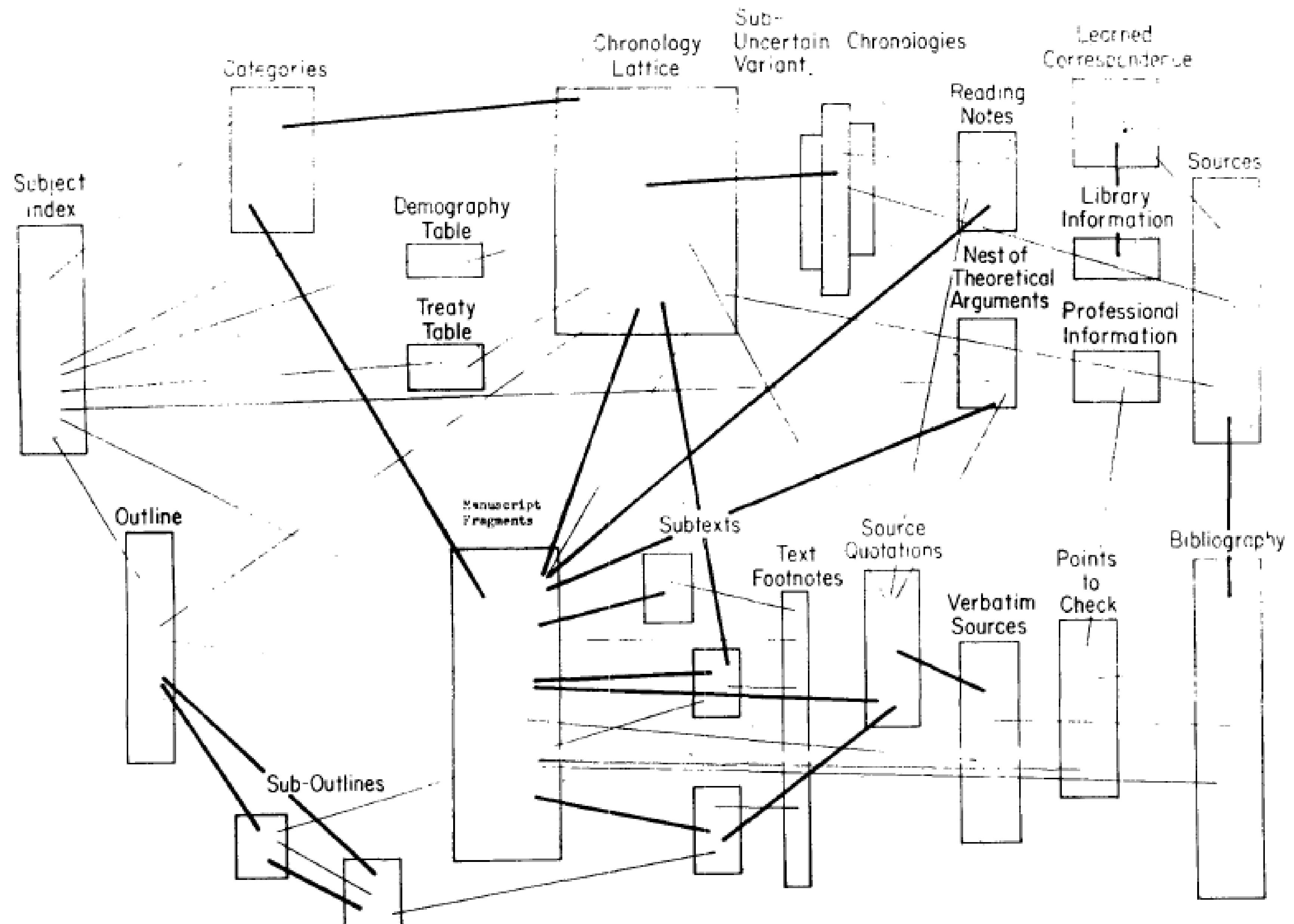




Robert Cailliau  
Tim Berners-Lee  
WorldWideWeb browser

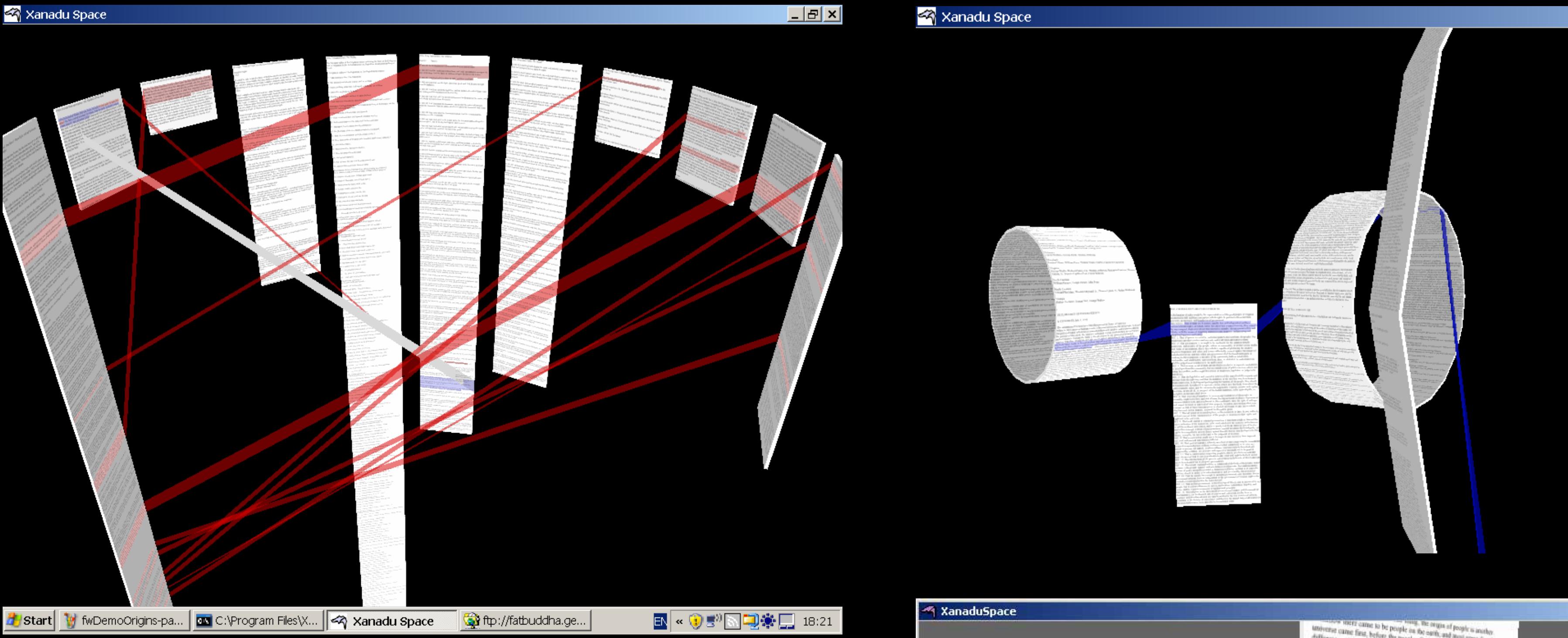


Nicole Pellow  
Robert Caillau  
SAMBA



Ted Nelson  
Project Xanadu

**FIGURE 4—ELF's capacity for total filing: hypothetical use by historian. Thin lines indicate links; heavy rules indicate some of same entries.**



**Xanadu Space**

I then goes on to make Eve, she and Adam are expelled from the Garden, they have sons who somehow meet other women and populate the earth.

There are interesting variants. For instance, in one of the Apocrypha ("The Alphabet of Ben Sira"), it is stated that the first woman is Lilith, who refuses to accept a sex-on-the-bottom position, and to whom Adam grants equality--

Adam and Lilith immediately began to fight. She said, 'I will not lie below,' and he said, 'I will not lie beneath you, but only on top. For you are fit only to be in the bottom position, while I am to be the superior one.' Lilith responded, 'We are equal to each other inasmuch as we were both created from the earth.'

But equality is insufficient, and Lilith leaves quickly. The Lilith story is titillating to many with different axes to grind. There is so little authoritative information about Lilith that she can be used to support many different ideas. (She even appears in George Bernard Shaw's play "Back to Methuselah.")

Of course, Few educated people accept the six-day, Adam-and-Eve account today. It has become literature and myth, and even jokes. Sample joke (from the computer world):

"How was God able to create the universe in only six days?"  
Answer: "He didn't have an installed base."

(Meaning that there was nothing already there that had to connect to the new universe.)

Ted Nelson  
Project Xanadu

**XanaduSpace**

The FAST CREATION OF THE UNIVERSE AND PEOPLE

Western accounts begin with Biblical, the religious books begun by the Hebrews and extended by Christians. All the Bibles have a common account of a busy week when the universe, and the human race, were created by a God who somehow already existed.

The creation of the universe is described in the King James Bible like this:

JL 1:001:001 In the beginning God created the heaven and the earth  
JL 1:001:002 And the earth was without form, and void, and darkness was upon the face of the deep. And the Spirit of God moved upon the face of the waters.  
JL 1:001:003 And God said, Let there be light and there was light.

God then goes on to make Eve, she and Adam are expelled from the Garden, they have sons who somehow meet other women and populate the earth.

There are interesting variants. For instance, in one of the Apocrypha ("The Alphabet of Ben Sira"), it is stated that the first woman is Lilith, who refuses to accept a sex-on-the-bottom position, and to whom Adam grants equality--

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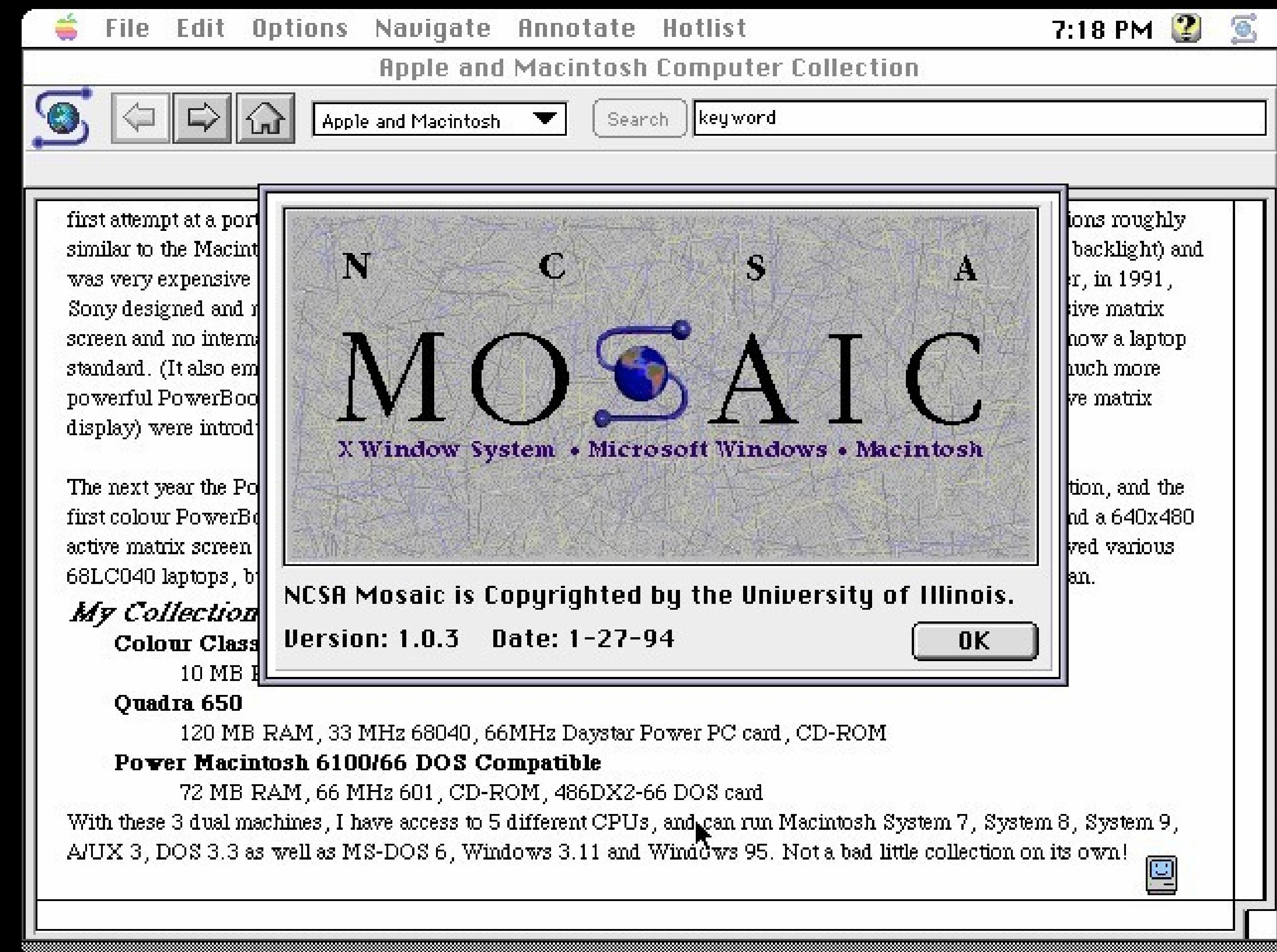
"How was God able to create the universe in only six days?"  
Answer: "He didn't have an installed base."

Clothing. But there was nothing already there that had to connect to the new universe.)

**THE FLOOD**

The different Bibles contain stories that were also lacking entirely in the ancient world, separate from Biblical culture. For example, we are all familiar with the Noah's Ark story. The account of Noah in the book of Genesis has a remarkable parallel in a story of the flood in the Babylonian epic-tablet discovered at Dur Sharrukin, in the ancient city of Ashurnasirpal.

We can consider the story of Noah, and the Avestan story of the flood, and look at what gives the



NCSA Mosaic  
1993



Networks Land  
Ingrid Burrington





Google Wants to Kill the URL | X

wired.com/story/google-wants-to-kill-the-url/

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LILY HAY NEWMAN SECURITY 09.04.18 01:00 PM

# GOOGLE WANTS TO KILL THE URL



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Something is wrong on the internet

A Medium Corporation [US] | medium.com/@jamesbridle/something-is-wrong-on-the-internet-c39c471271d2

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 James Bridle [Follow](#)  
Writer and Artist. <http://jamesbridle.com>  
Nov 6, 2017 · 21 min read

## Something is wrong on the internet

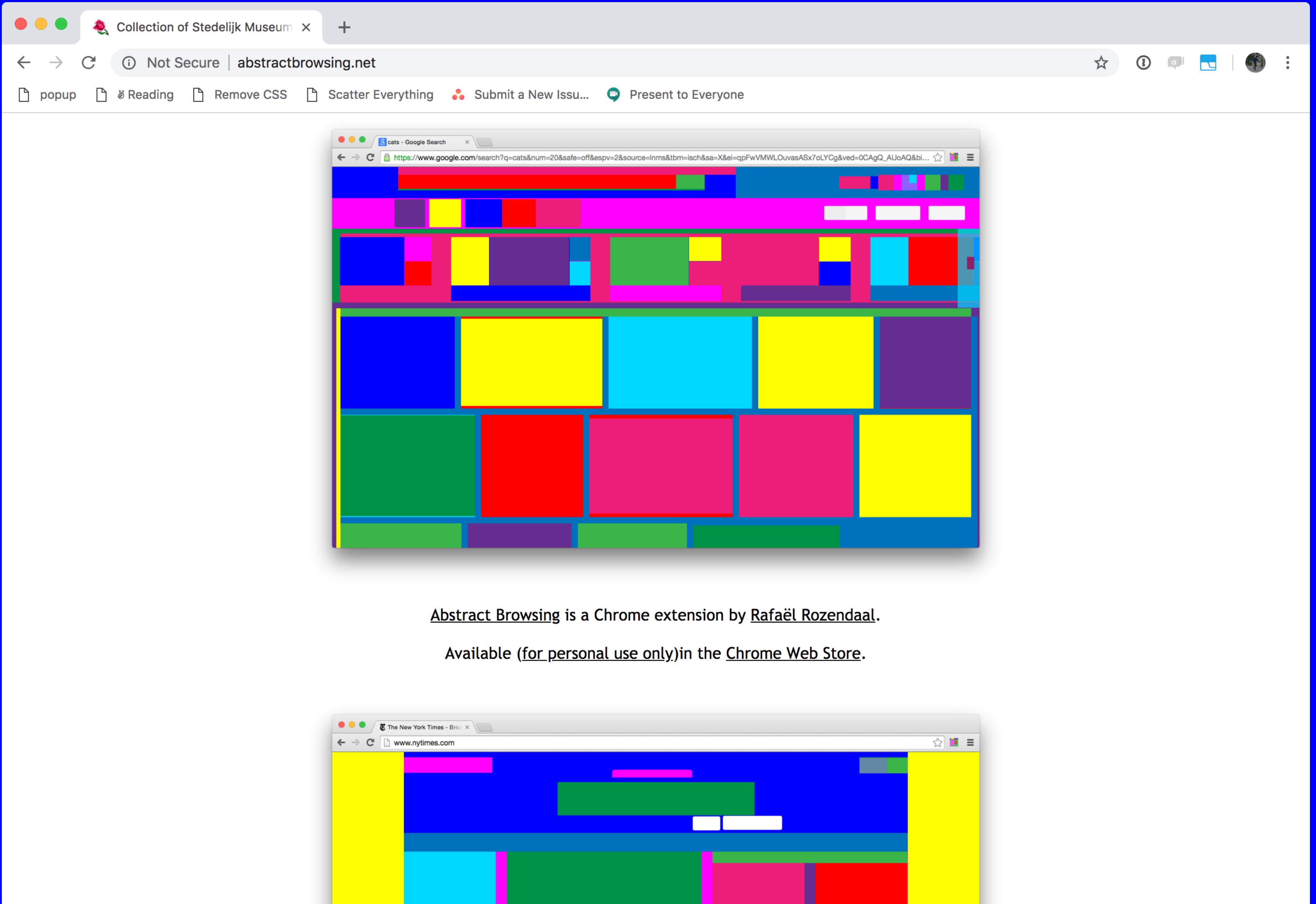
*I'm James Bridle. I'm a writer and artist concerned with technology and culture. I usually write on my own blog, but frankly I don't want what I'm talking about here anywhere near my own site. Please be advised: this essay describes disturbing things and links to disturbing graphic and video content. You don't have to read it, and are advised to take caution exploring further.*

As someone who grew up on the internet, I credit it as one of the most important influences on who I am today. I had a computer with internet access in my bedroom from the age of 13. It gave me access to a lot of things which were totally inappropriate for a young teenager, but it was OK. The culture, politics, and interpersonal relationships which I consider to be central to my identity were shaped by the internet, in ways that I have always considered to be beneficial to me personally. I have always been a critical proponent of the internet and everything it has brought, and broadly

 Never miss a story from **James Bridle**, when you sign up for Medium. [Learn more](#) [GET UPDATES](#)

Waiting for api.branch.io...

<https://medium.com/@jamesbridle/something-is-wrong-on-the-internet-c39c471271d2>



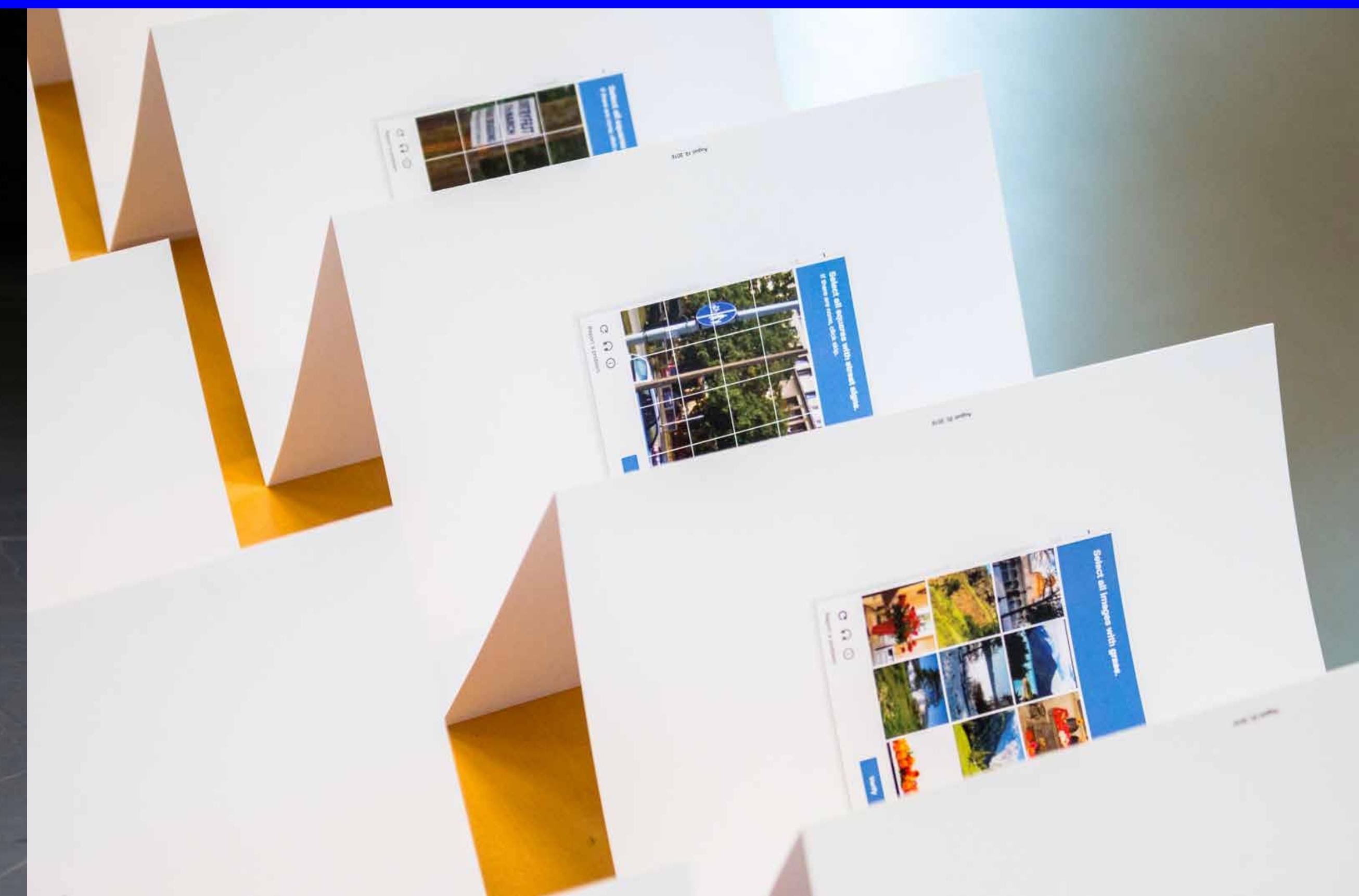
[Abstract Browsing](#) is a Chrome extension by [Rafaël Rozendaal](#).

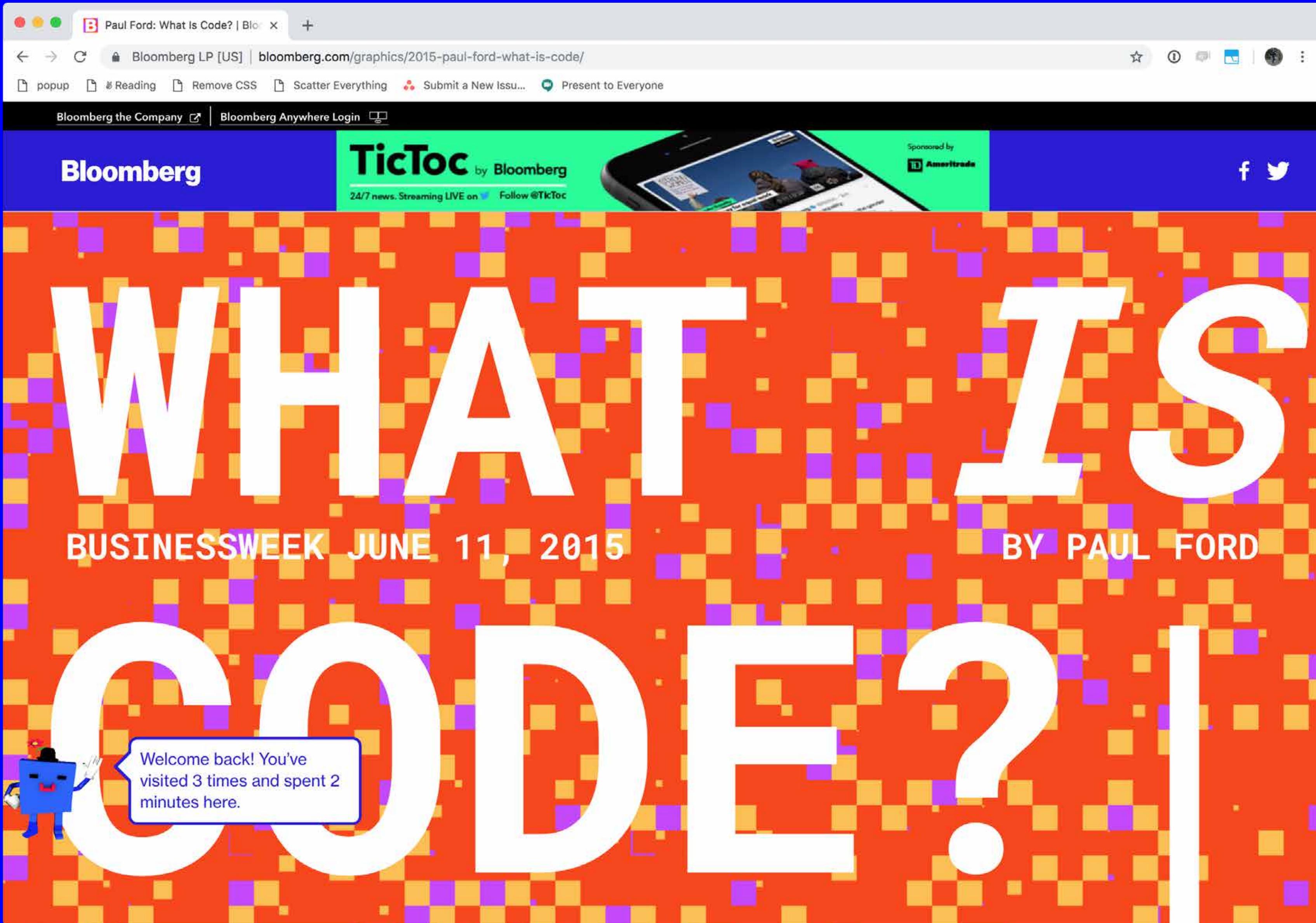
Available ([for personal use only](#)) in the [Chrome Web Store](#).

Abstract Browsing  
Rafaël Rozendaal, 2014



Five Years of Captured CAPTCHAs  
Silvio Lorusso & Sebastian Schmieg, 2017





<https://www.bloomberg.com/graphics/2015-paul-ford-what-is-code/>

Embroidery Trouble Shooting P X +

web.archive.org/web/20051025232423/http://www.sewingincanada.com:80/embtrb.htm

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Juki Home Sewing Cabinets Brother Home Sewing Parts Specials Emb. Machines/Supplies Contact us Industrial Sewing Husqvarna/White Home Sewing

**Embroidery Trouble Shooting Guide**

**Thread Breakage**

**Causes:**

**Improper Thread**  
Try re-threading the machine; make sure the thread goes through all guides.

**Burrs**  
There may be burrs in the needle's eye, on the thread guides, needle plate or the hook. Replace the needle and try buffing the thread guides and needle plate. Buffing may alter the timing, so it's a good idea to replace a damaged hook.

**Dry Hook**  
Because it dries out faster, the hook needs frequent lubrication. The hook assembly should be lubricated every 4-8 hours of machine running time.

**Needle to small**  
You may have to change to a larger needle

**Too much Adhesive spray**  
You should be using only Embroidery designed adhesive sprays, never over use them. Too much adhesive build up on the needle can cause them to drag and break threads. If this is happening you should examine the way you use your adhesive spray

Embroidery Trouble Shooting P X +

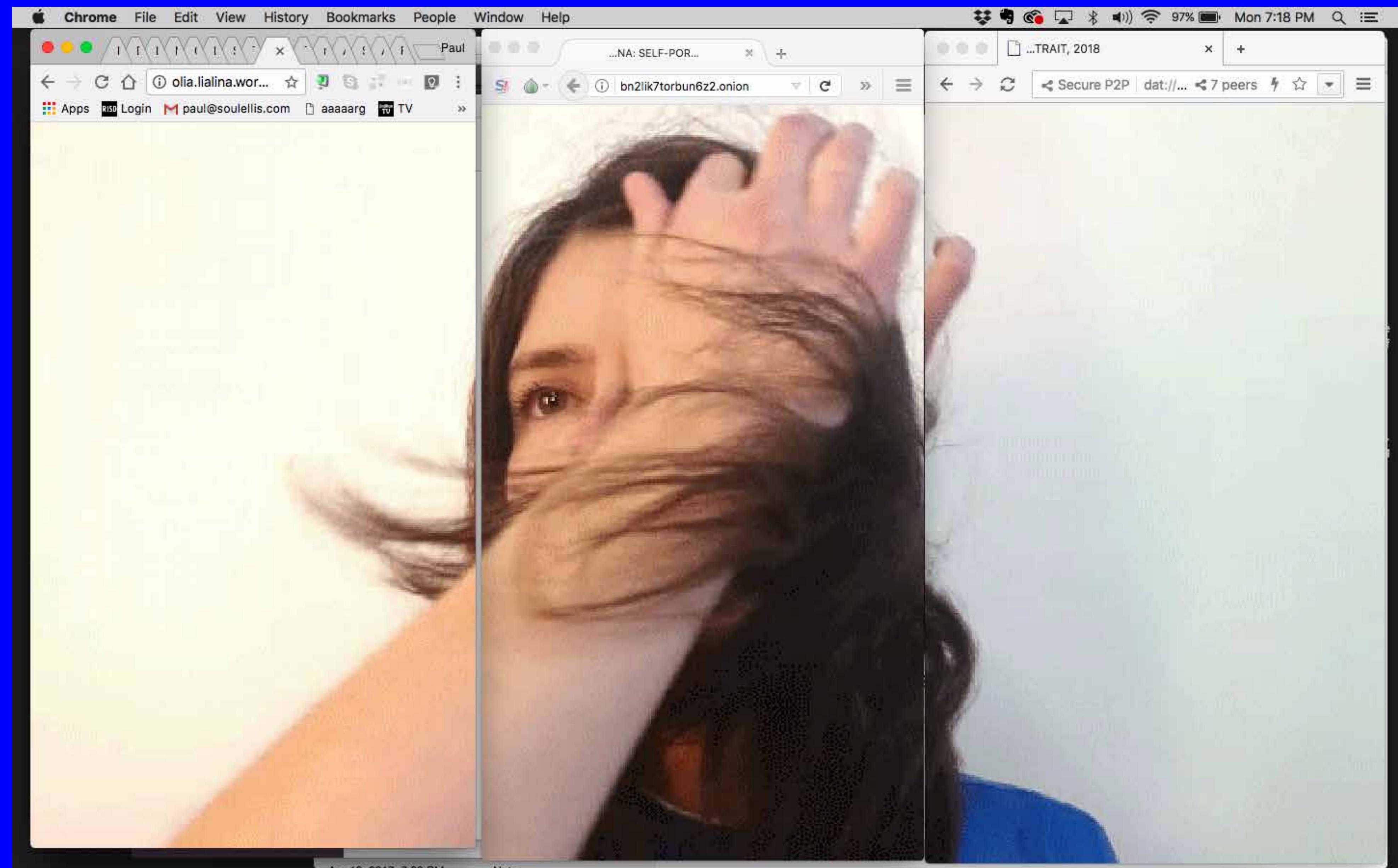
web.archive.org/web/20051025232423/http://www.sewingincanada.com:80/embtrb.htm

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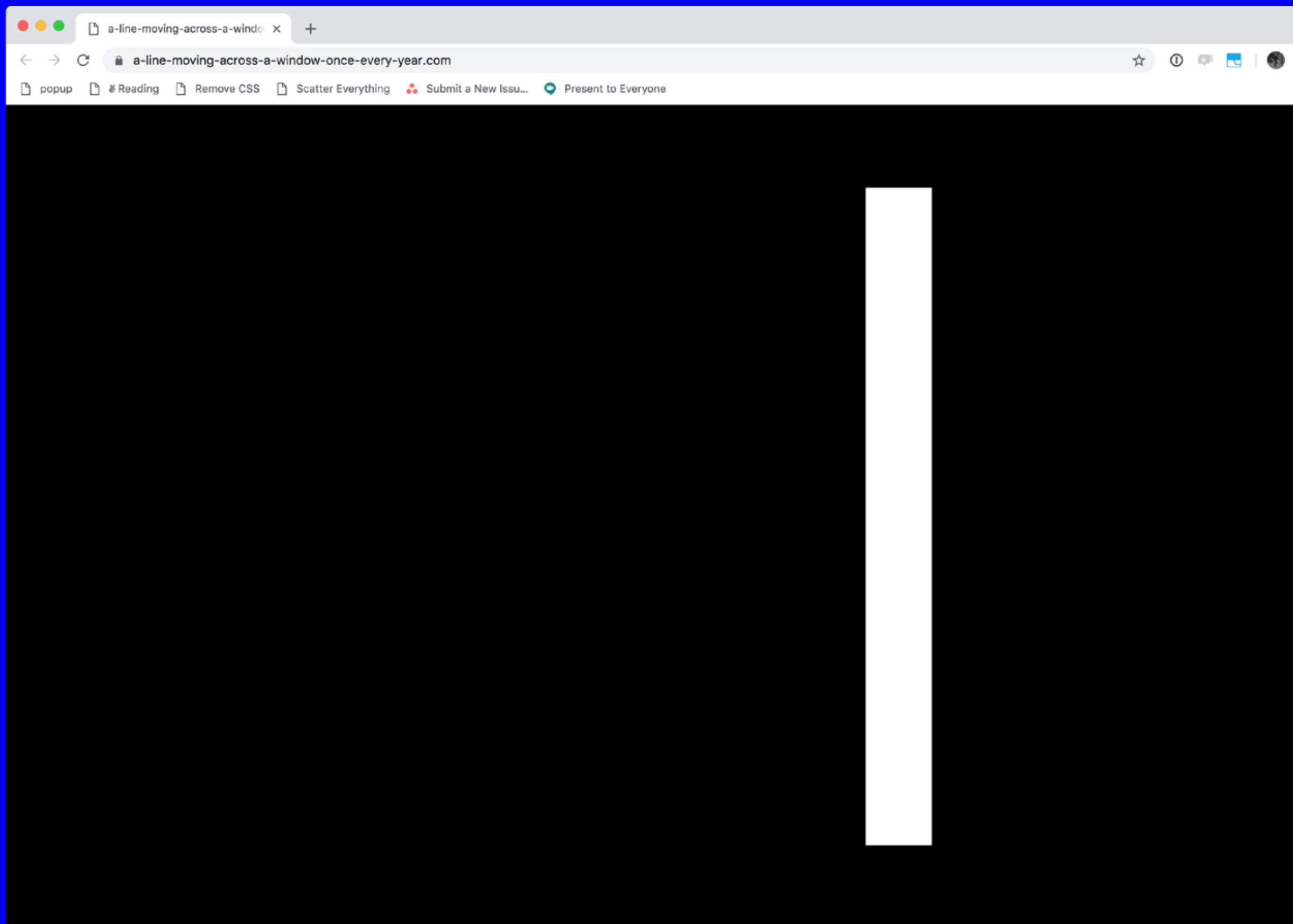
INTERNET ARCHIVE Wayback Machine http://www.sewingincanada.com:80/embtrb.htm Go MAR OCT DEC 25 2004 2005 2016 About this capture

36 captures 14 Oct 2003 - 28 May 2018

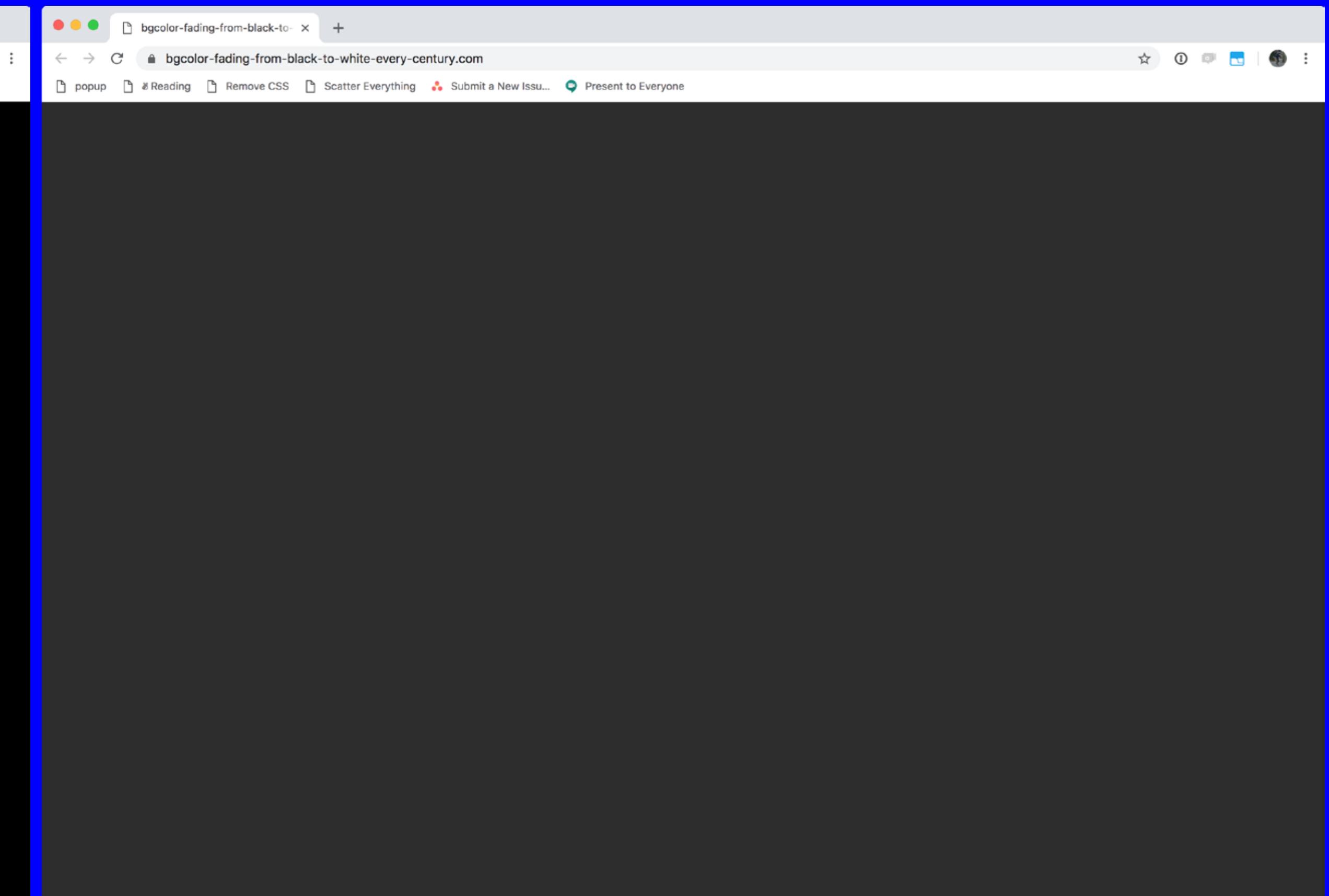
# Retaining finger in wrong position loop can not



Self-Portrait  
Olia Lialina, 2018



a-line-moving-across-a-window-once-every-year.com



bgcolor-fading-from-black-to-white-every-century.com

# Browsers

Chrome

Firefox

Safari

Edge

Opera

Brave

Beaker

UC

QQ

# Browsers

→ Chrome

Firefox

Safari

Edge

Opera

Brave

→ Beaker

UC

QQ

# Editors

Sublime Text

Atom

Visual Studio Code

Brackets

Light Table

Vim

Emacs

TextMate

Notepad++

## Editors

→ Sublime Text

Atom

Visual Studio Code

Brackets

Light Table

Vim

Emacs

TextMate

Notepad++

# Hypertext Markup Language

HTML is not a programming language;  
it is a markup language that defines the  
structure of your content.

Can be created with any text editor.

Element

Tag

Attributes

Values

Content

# HTML Element

Example of three different kinds of elements.

```
<h1>Welcome to My Homepage</h1>
```

```
<p class="neat-style">A typical element!</p>
```

```
<a href="https://www.ocadu.ca">Enter</a>
```

→ For reference: <https://developer.mozilla.org/en-US/docs/Web/HTML/Element>

Section  
Navigation  
List  
Headline  
Author  
Image  
Paragraph  
Link

Tim Kreider - Opinionator - The X +

opinionator.blogs.nytimes.com/author/tim-kreider/

DevDocs Validate This Page Remove CSS tota11y Type Sample Add to Are.na & Reading popup

Opinionator

The Opinion Pages

**O** **Opinionator**  
A GATHERING OF OPINION FROM AROUND THE WEB

Search Opinionator **SEARCH**

Posts published by Tim Kreider 13 Results

MENAGERIE | NOV 15, 2014 Comment

**On Smushing Bugs**  
BY TIM KREIDER

Email Share Tweet Save More

  
Matthew Thurber

When my kitchen became infested with ants this summer, as it does every year, I put out ant traps, which, in another annual rite, did exactly nothing. So I did what I always end up doing — inefficiently smushing the ants one by one. Sometimes I'll massacre dozens at a

**INSIDE OPINIONATOR**

April 26, 2016 **Guiding a First Generation to College**  
Students who are new to America or lack college-educated parents often don't know their options. [Read more...](#)

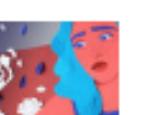
April 19, 2016 **How Dwindling Fish Stocks Got a Reprieve**  
Giving fishermen a business incentive to fish sustainably can "unleash their creative capacity" to help solve the problem, says one expert. [Read more...](#)

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**PRIVATE LIVES** **Fractured: A First Date** It wasn't my heart that he broke. [Read more...](#) 

**FIXES** **How Dwindling Fish Stocks Got a Reprieve** Giving fishermen a business incentive to fish sustainably can "unleash their creative capacity" to help solve the problem, says one expert. [Read more...](#) 

**COUCH** **Should Therapists Write About Patients?** 

# Tag

```
<p class="neat-style">A typical element!</p>
```

Opening tag

Closing tag

# Attributes

```
<p class="neat-style">A typical element!</p>
```

Attribute

# Attributes

```
<p class="neat-style">A typical element!</p>
```

Value

# Attributes

```
<p class="neat-style">A typical element!</p>
```

Content

# Cascading Style Sheets

CSS is not a programming language.  
Lets you apply styles selectively to  
elements in HTML documents.

Different syntax than HTML.

Can be created with any text editor.

Multiple methods of doing one thing.

# CSS

```
background: blue;  
width: 500px;  
height: 500px;
```

# Inline CSS

```
<h1 style="background: blue; width: 500px;">  
    Welcome to My Homepage  
</h1>
```

# HTML <style> element

```
<style type="text/css">  
p {  
    background: blue;  
    width: 500px;  
}  
</style>
```

# External Resource Link

```
<link rel="stylesheet" href="style.css">
```

# CSS Rule

Rule

```
p {  
    display: block;  
    background: blue;  
    width: 500px;  
    height: 500px;  
}
```

# CSS Rule

Selector

```
p {  
    display: block;  
    background: blue;  
    width: 500px;  
    height: 500px;  
}
```

# CSS Rule

Declaration

```
p {  
    display: block;  
    background: blue;  
    width: 500px;  
    height: 500px;  
}
```

# HTML + CSS: Classes

The CSS class selector matches elements based on the contents of their class attribute.

```
.neat-style {  
    display: block;  
    background: blue;  
    width: 500px;  
    height: 500px;  
}
```

```
<p class="neat-style">  
    A typical element!  
</p>
```

# HTML + CSS: IDs

In an HTML document, the CSS ID selector matches an element based on the value of its id attribute. The selected element's ID attribute must match exactly the value given in the selector.

```
#firstTextBlock {  
    background: red;  
    width: 200px;  
    height: 100px;  
}
```

```
<p id="firstTextBlock">  
    First text block element!  
</p>
```

# HTML + CSS: Type

The CSS type selector matches elements by node name.  
In other words, it selects all elements of the given type  
within a document.

```
a{  
color: red;  
text-decoration: none;  
font-weight: bold;  
}
```

```
<a href="hello.html">  
Enter Hello Document  
</a>
```

# Reference

Download Google Chrome:

→ <https://www.google.com/chrome/>

Download Sublime Text:

→ <https://www.sublimetext.com>

Opening inspector tools:

→ In Chrome and Firefox: Right-click » Inspect

→ In Safari: Preferences » Advanced » Show Devlop menu in menu bar

→ Right-click » Inspect Element

# Reference

HTML elements reference:

→ <https://developer.mozilla.org/en-US/docs/Web/HTML/Element>

CSS reference:

→ <https://developer.mozilla.org/en-US/docs/Web/CSS/Reference>

Starter HTML template:

→ <http://codepanel.in>

Online playgrounds:

→ <https://jsfiddle.net/>

→ <https://glitch.com/>

→ <https://codepen.io/>