

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

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.

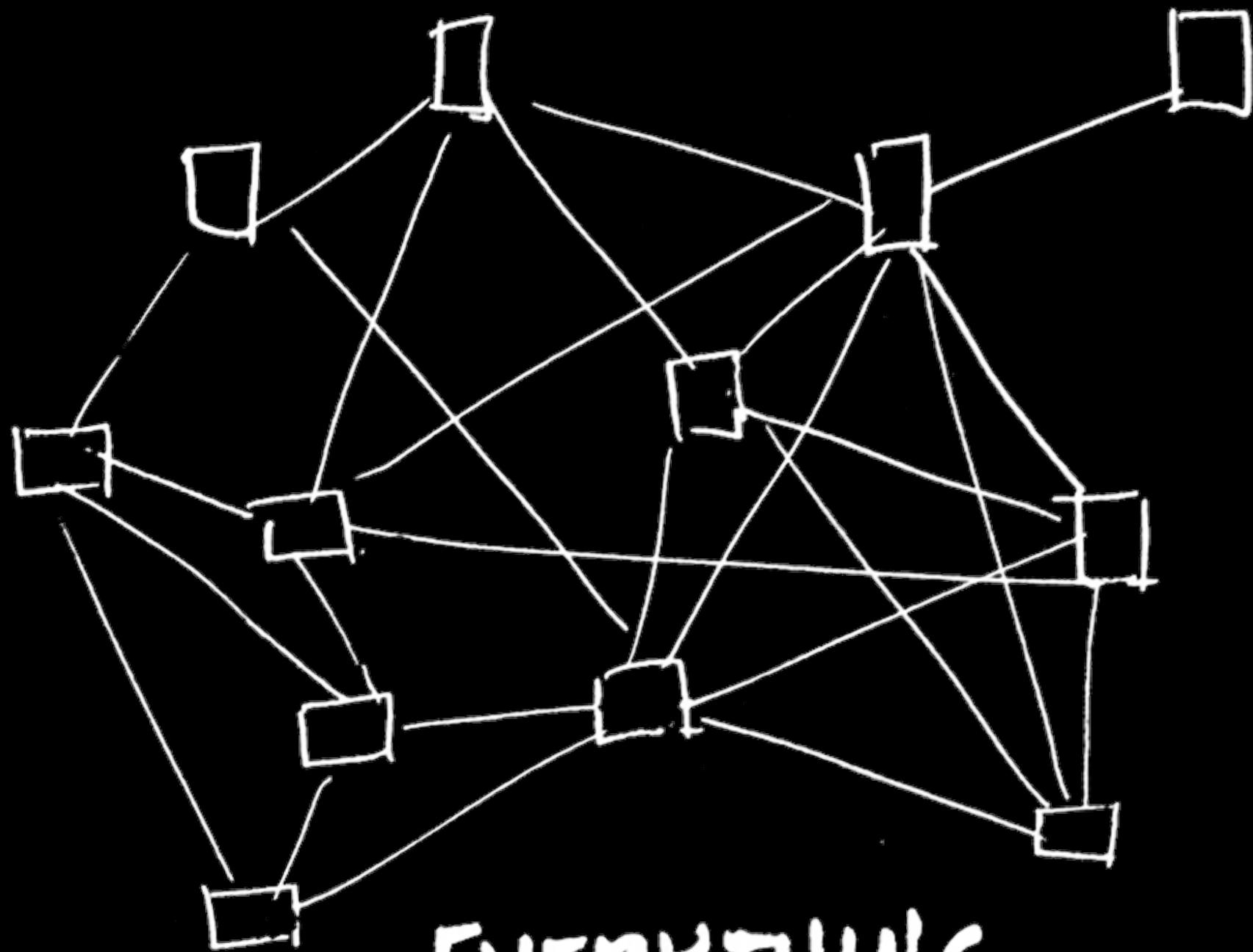
Ben Fry on Muriel Cooper

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.

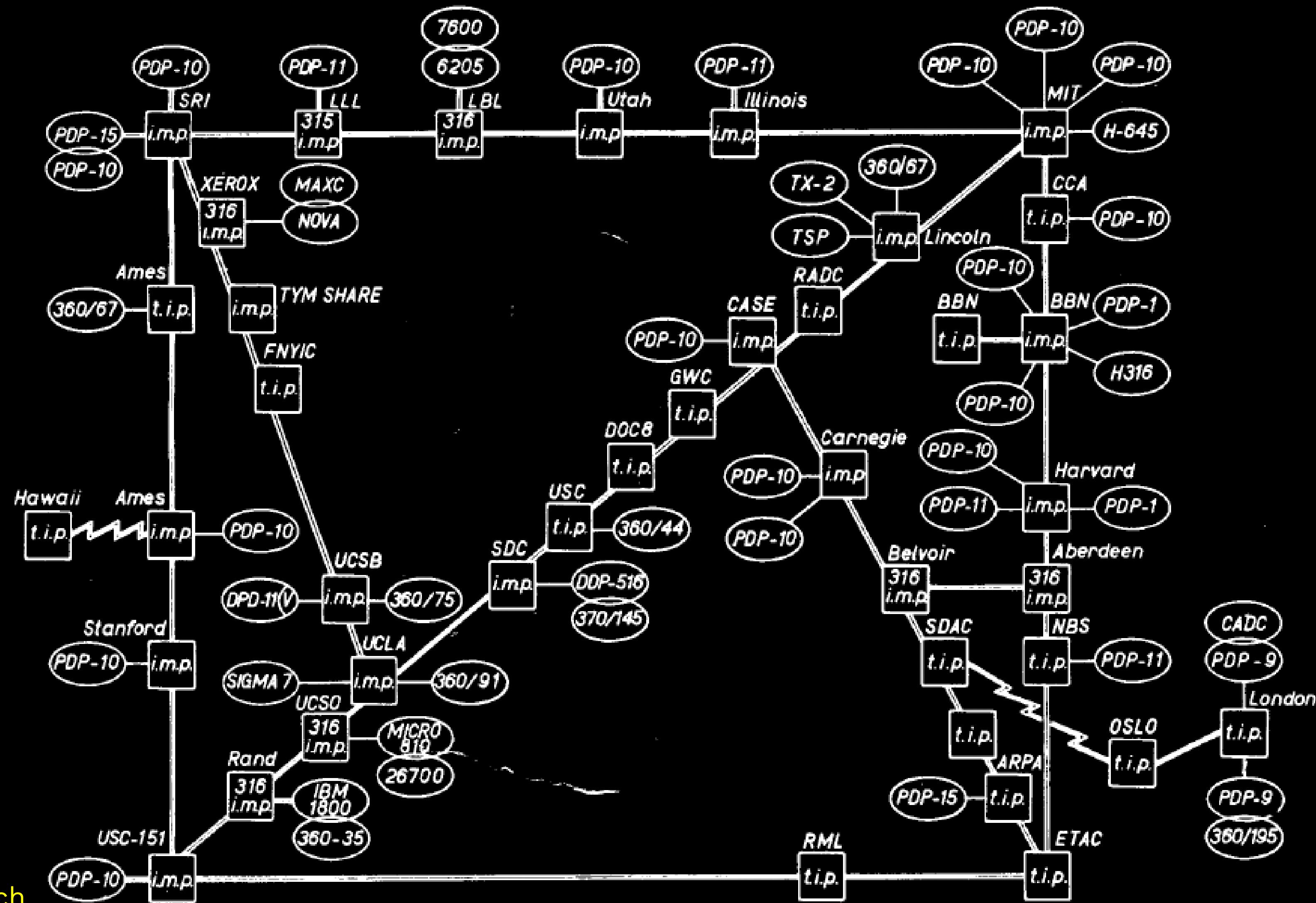
In an important sense there are no "subjects" at all; there is only all knowledge, since the cross-connections among the myriad topics of this world simply cannot be divided up neatly.

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

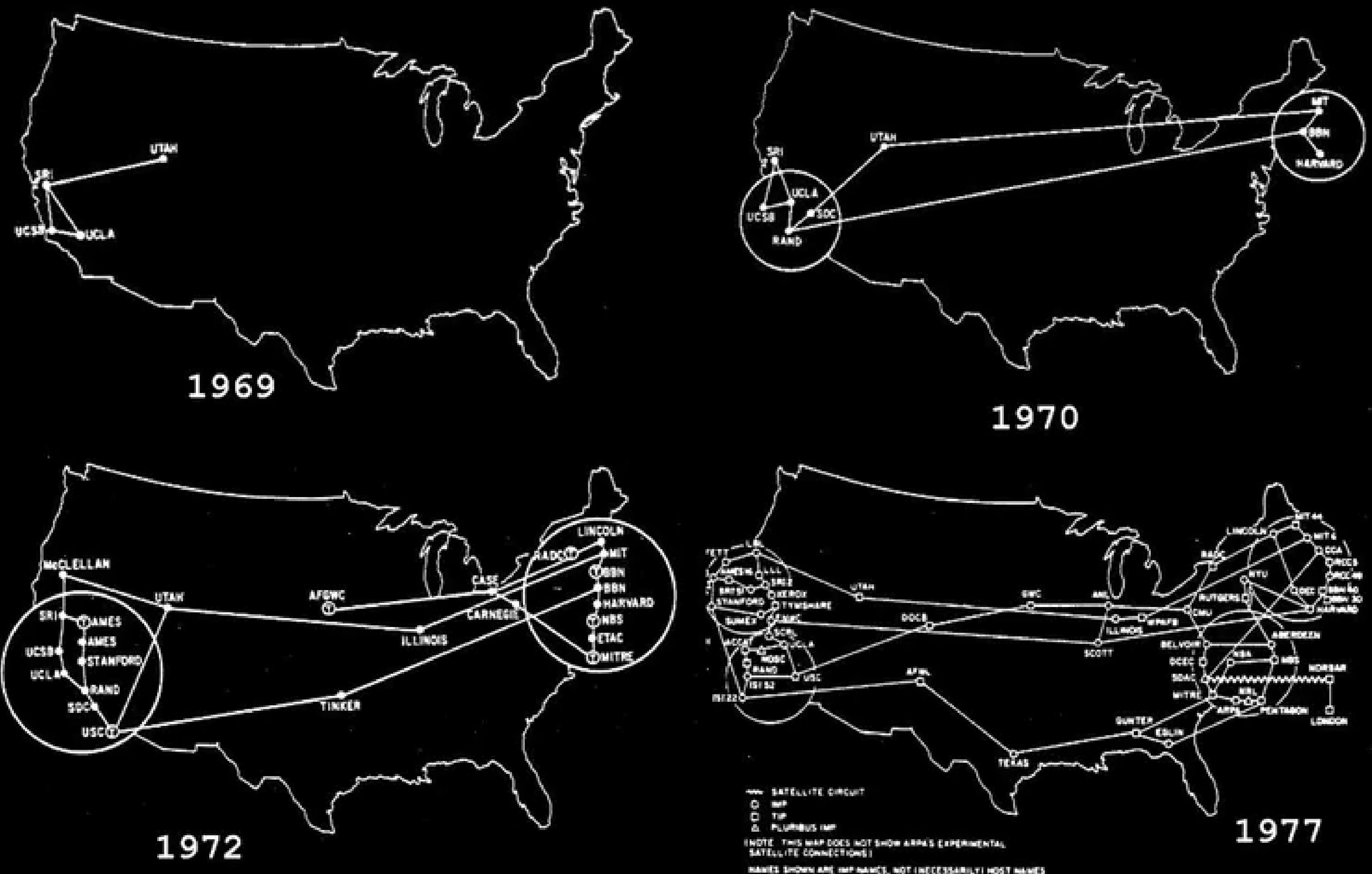
Ted Nelson
Computer Lib/Dream Machines, 1974

Teletype
The Canadian Press, 1963

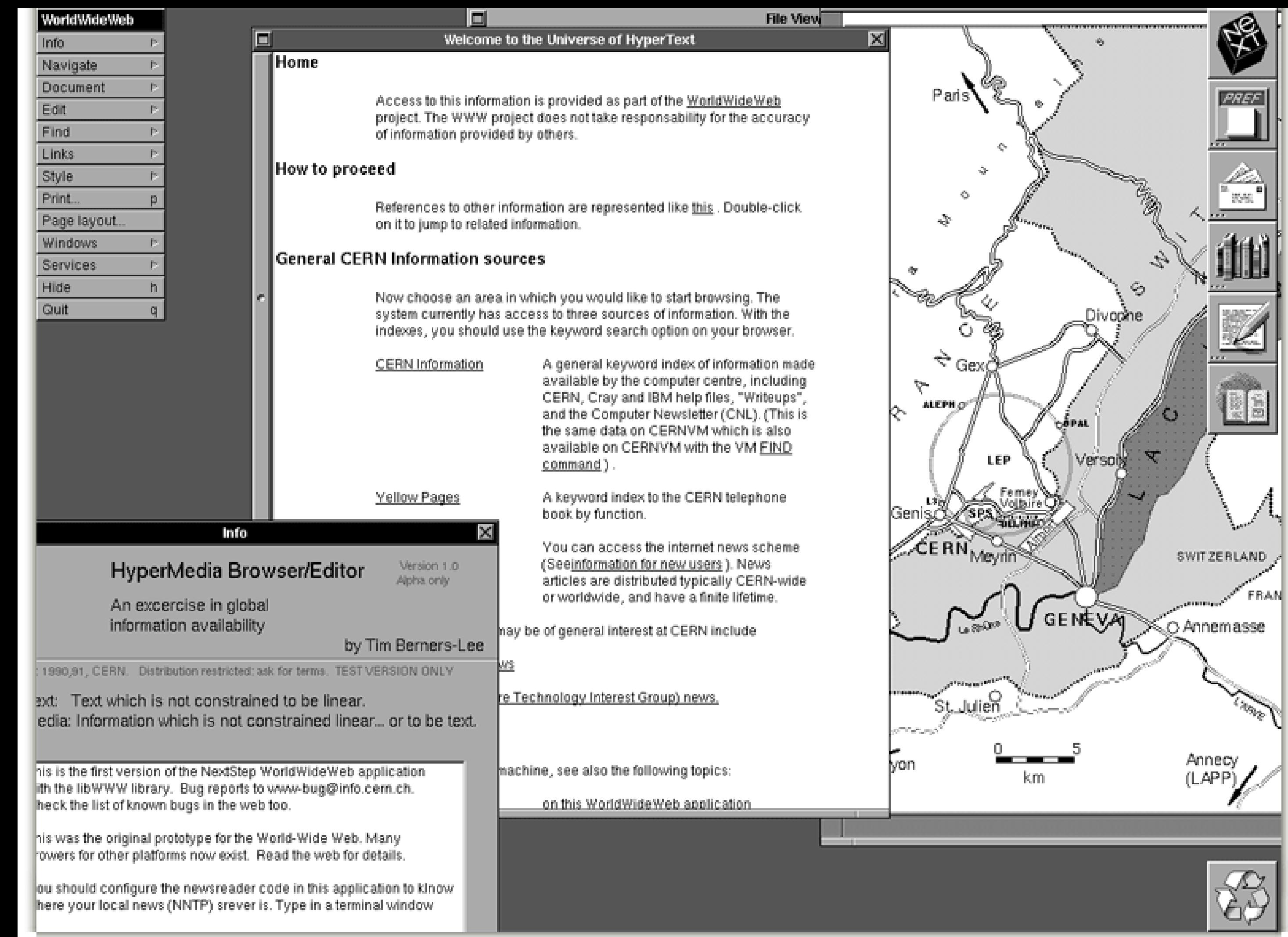




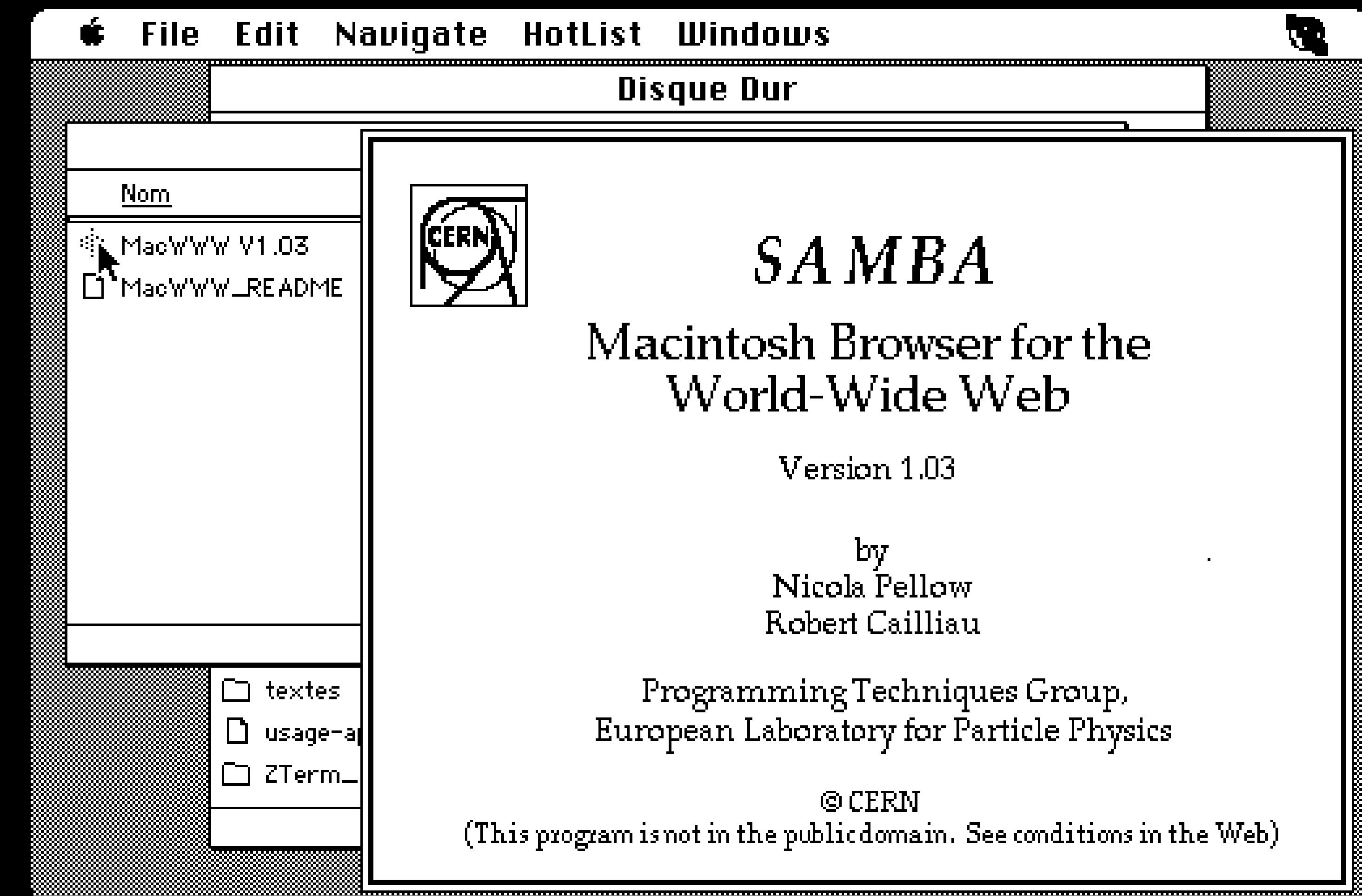
The Advanced Research
Projects Agency Network (ARPANET)



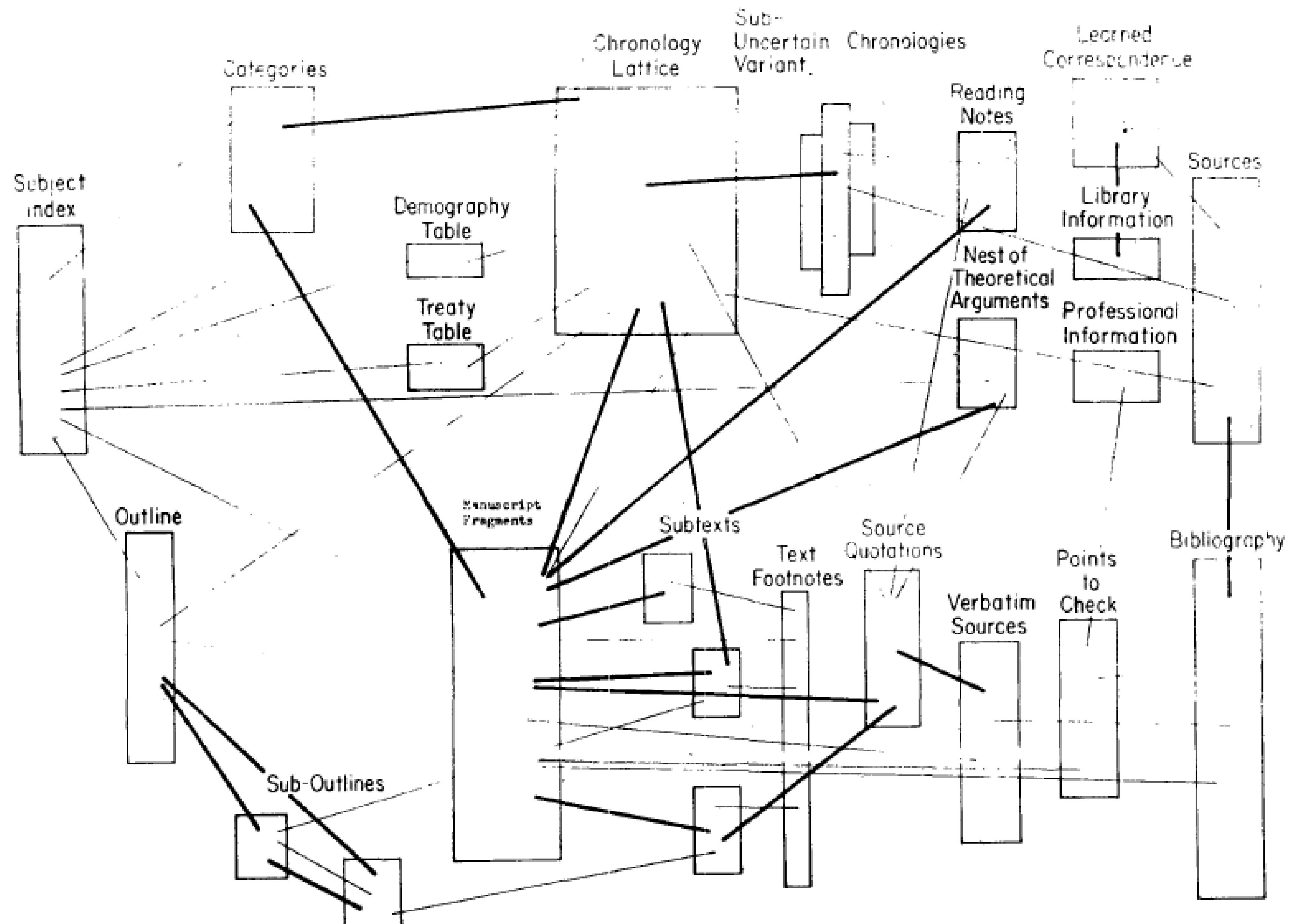
The Advanced Research Projects Agency Network (ARPANET)



Robert Cailliau
Tim Berners-Lee
WorldWideWeb browser

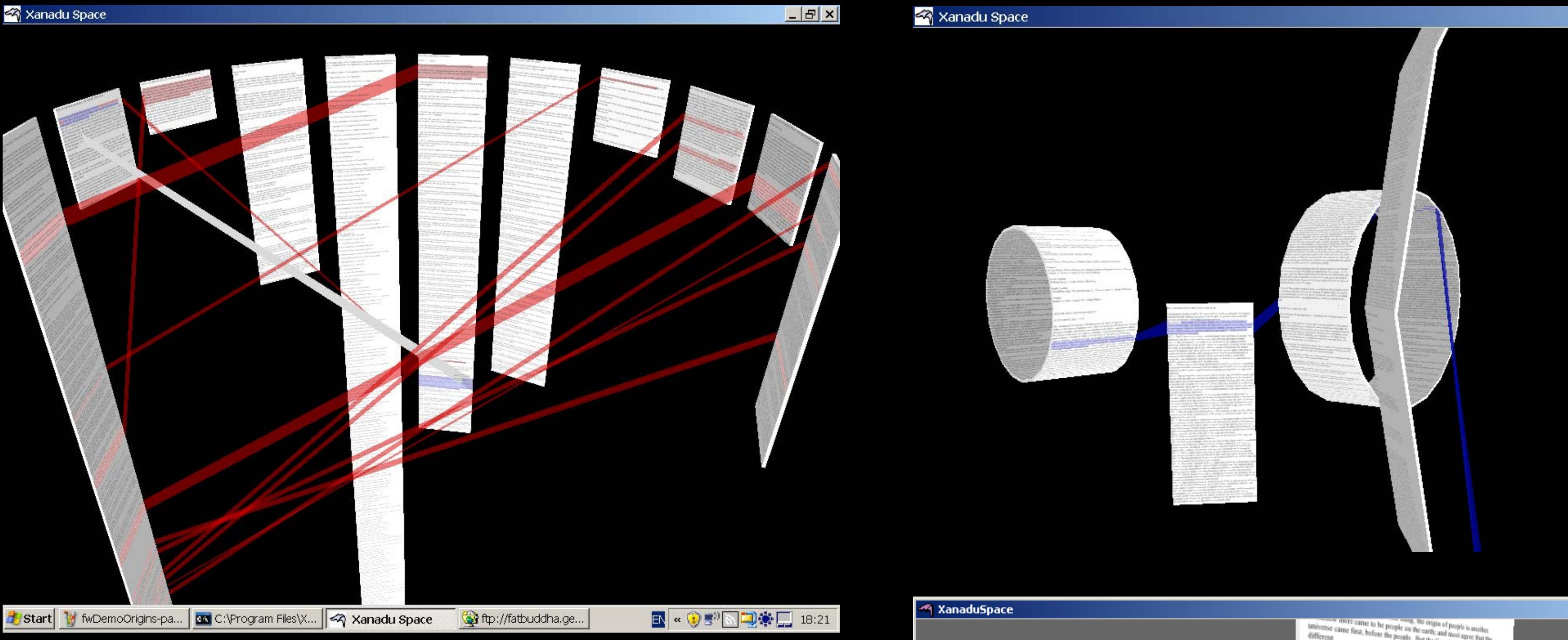


Nicole Pellow
Robert Cailliau
SAMBA



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 origin of people is another universe came first, before the people. But the Creation stories are very different.

THE FAST CREATION OF THE UNIVERSE AND PEOPLE

Western accounts begin with Bibles, 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:

- [1] In the beginning God created the heaven and the earth.
- [2] 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 water.
- [3] 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.

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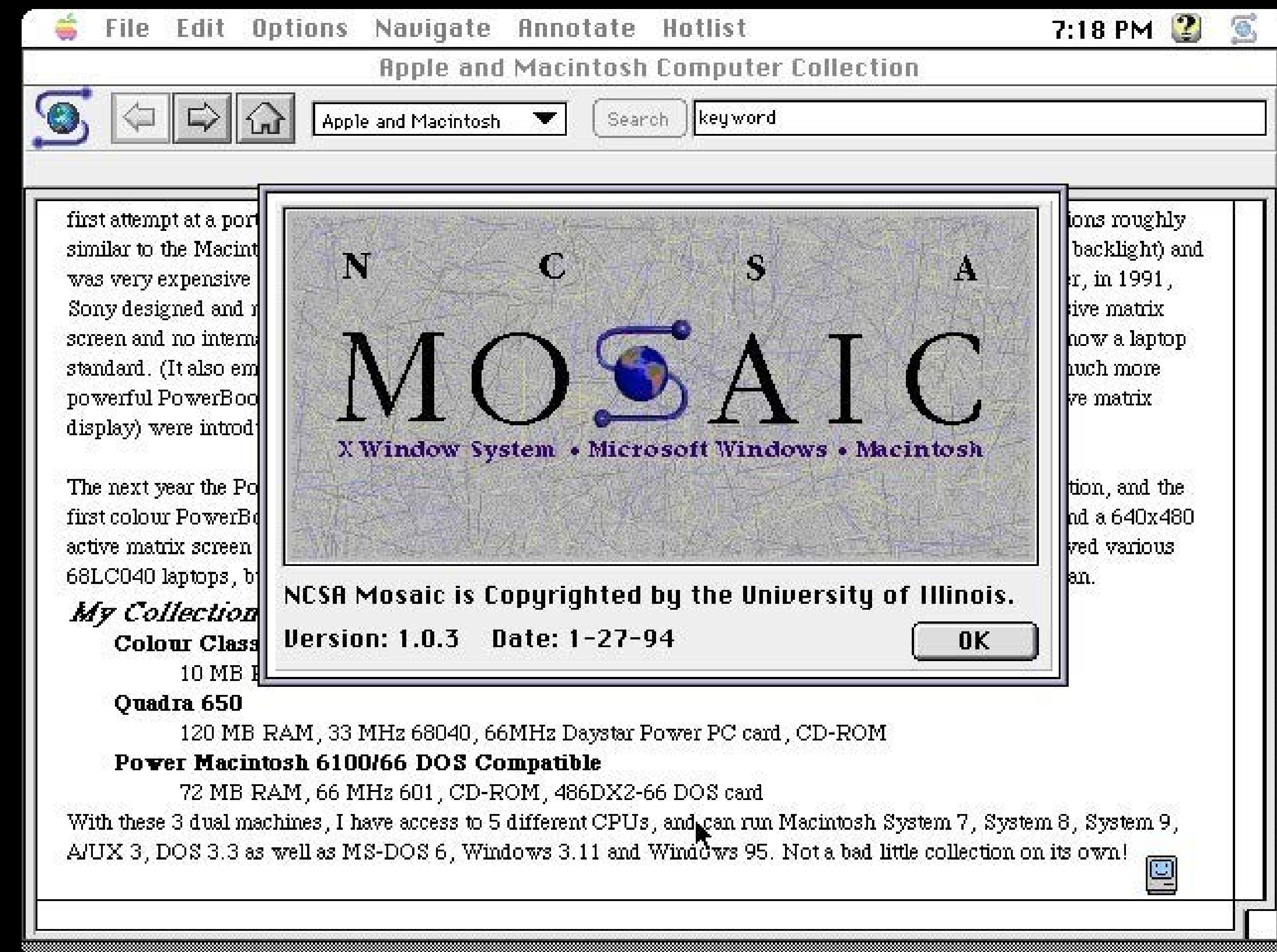
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THE FLOOD

The different Bibles contain stories that were also kicking around apparently in the ancient world, separate from Hebrew culture. For example, we are all familiar with the story of Noah. But there are other accounts of a great and terrible flood that covered the world. The account of the Flood in the book of Genesis has a remarkable parallel to a story of the Flood in Avesta, the sacred history of Zoroastrianism.

We can consider the story of Noah, and the Avestan story of the Flood, side-by-side, and look at what gives them the same meaning, and what makes them different.



NCSA Mosaic
1993



Networks Land
Ingrid Burrington





Google Wants to Kill the URL | X +

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

popup Reading Remove CSS Scatter Everything Submit a New Issue... Present to Everyone

WIRED

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



WHAT MIGHT YOU DISCOVER WHEN YOU LISTEN MORE? FREE 30-DAY TRIAL audible an amazon company

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SCIENCE To Heal Wounds, Cells Time-Travel Back to a Fetal State

<https://www.wired.com/story/google-wants-to-kill-the-url/>

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](#)

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



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

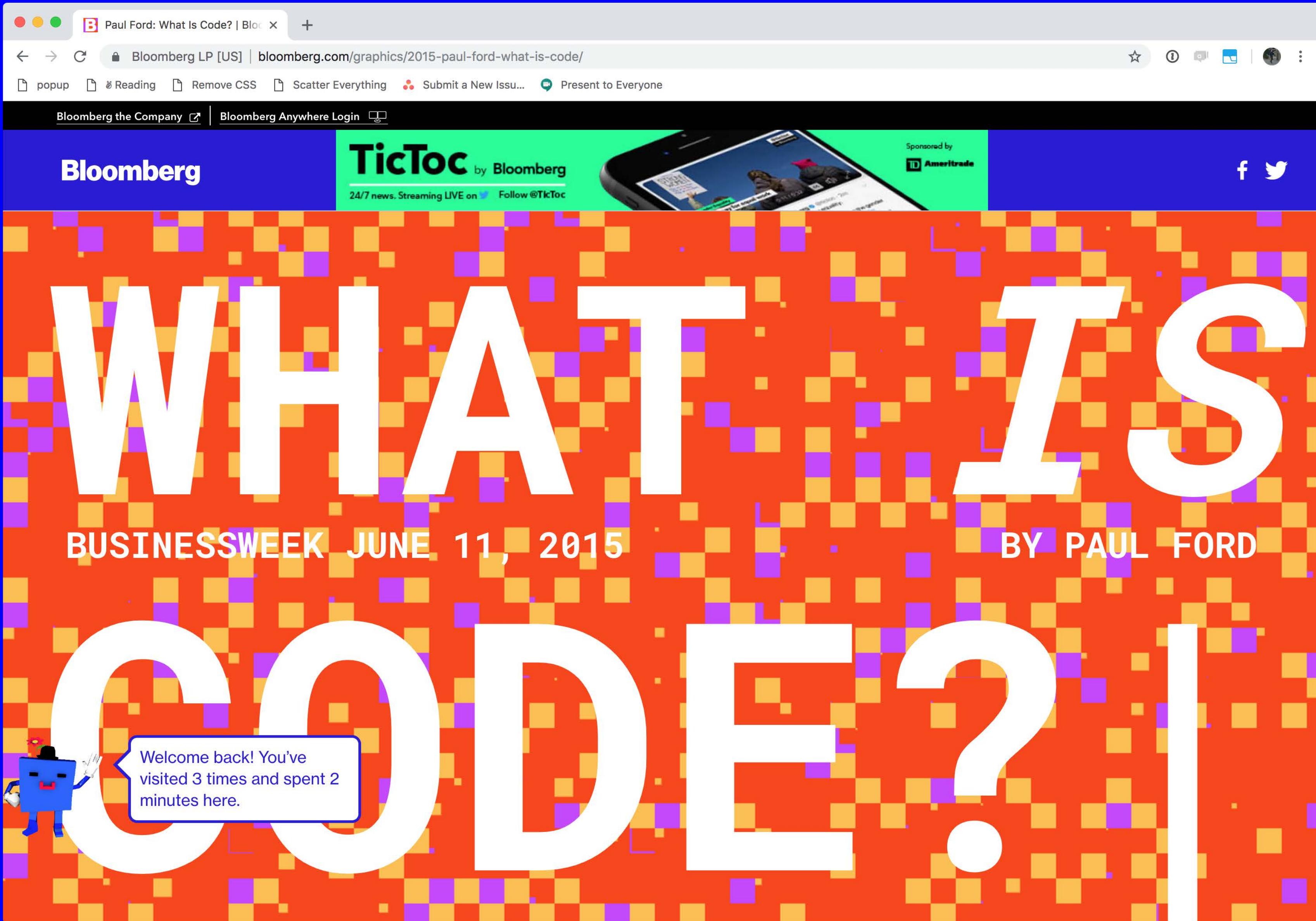
Available ([for personal use only](#)) in the [Chrome Web Store](#).



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 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.

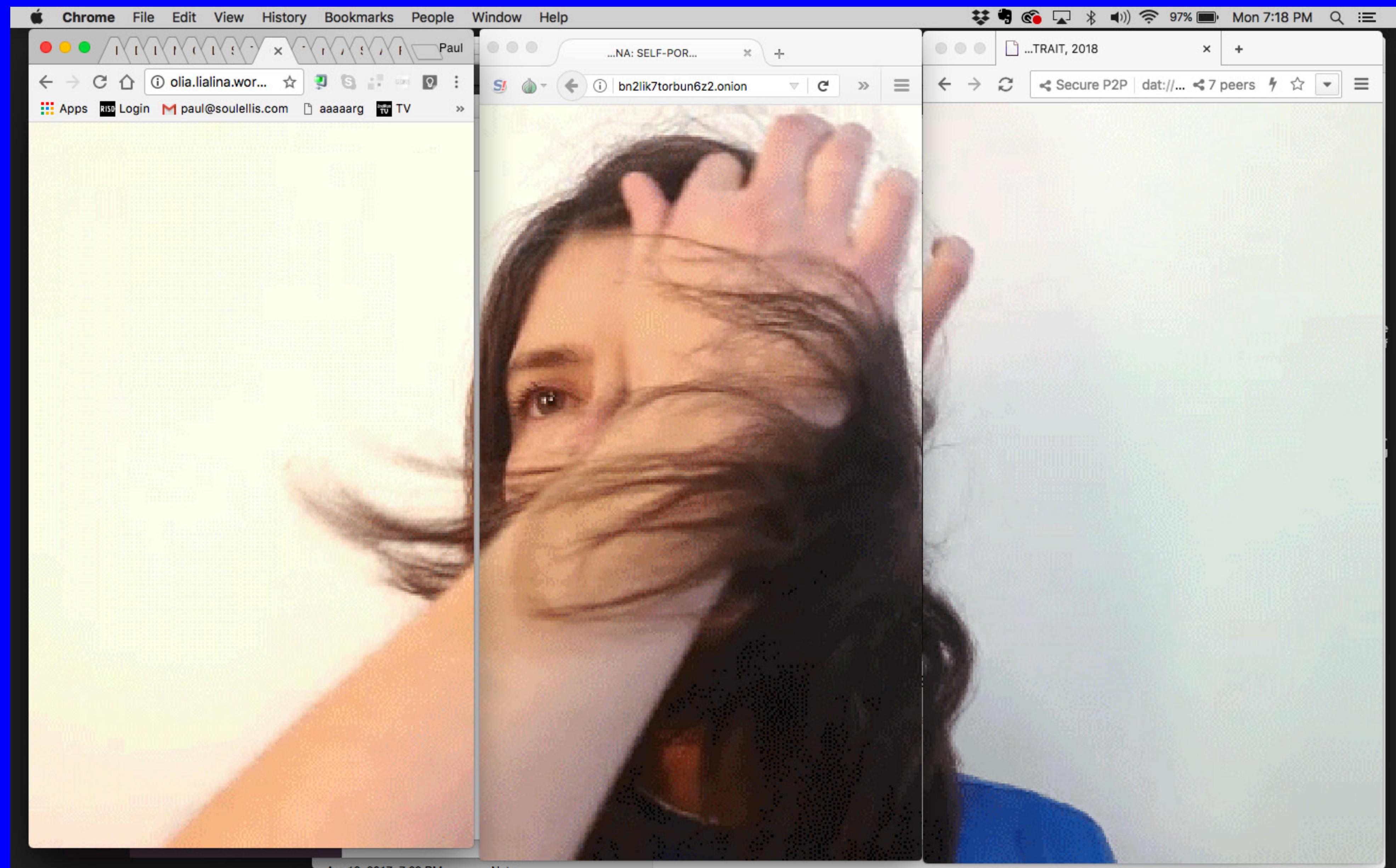
Needle too small

You may have to change to a larger needle

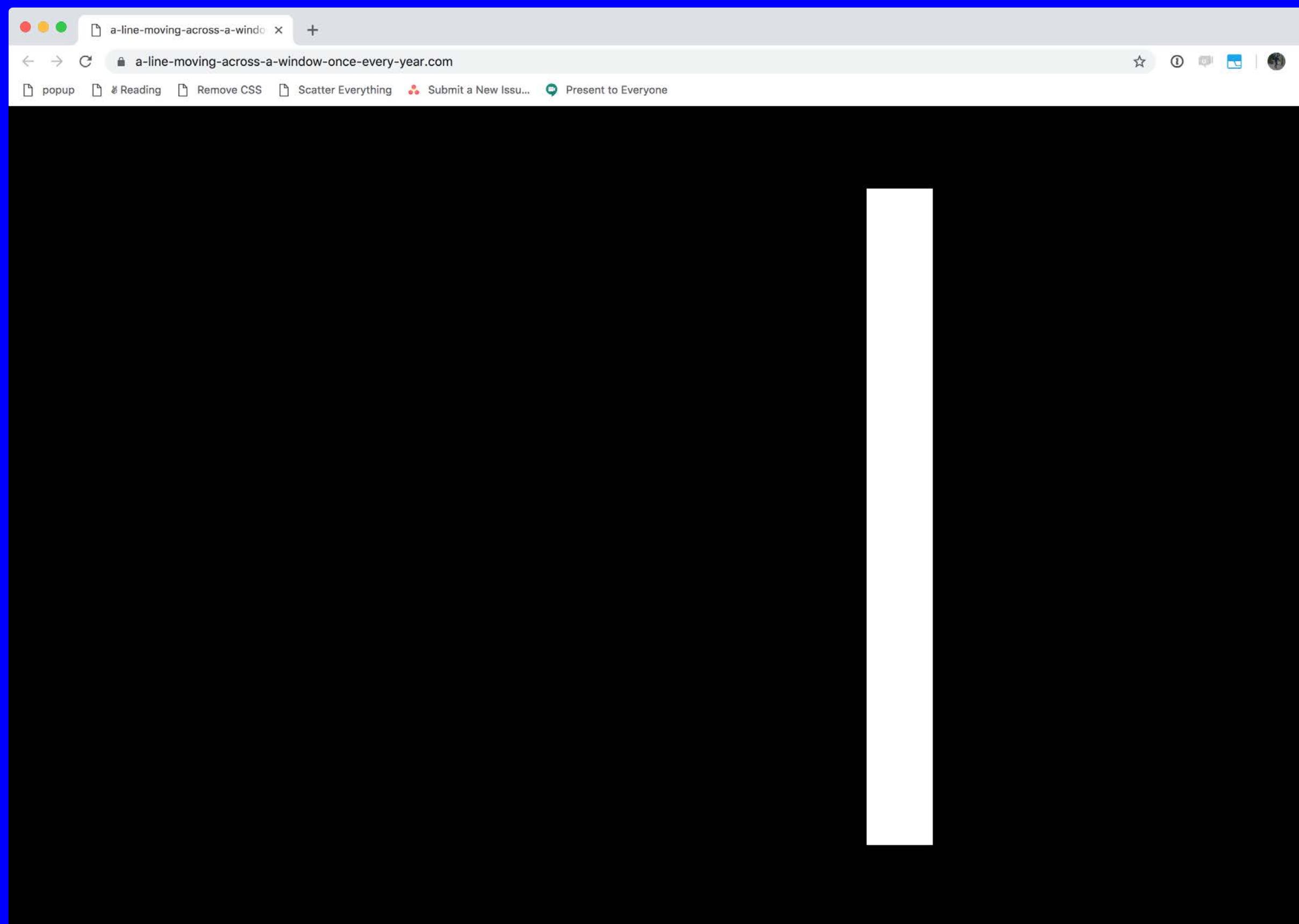
Too much Adhesive spray

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

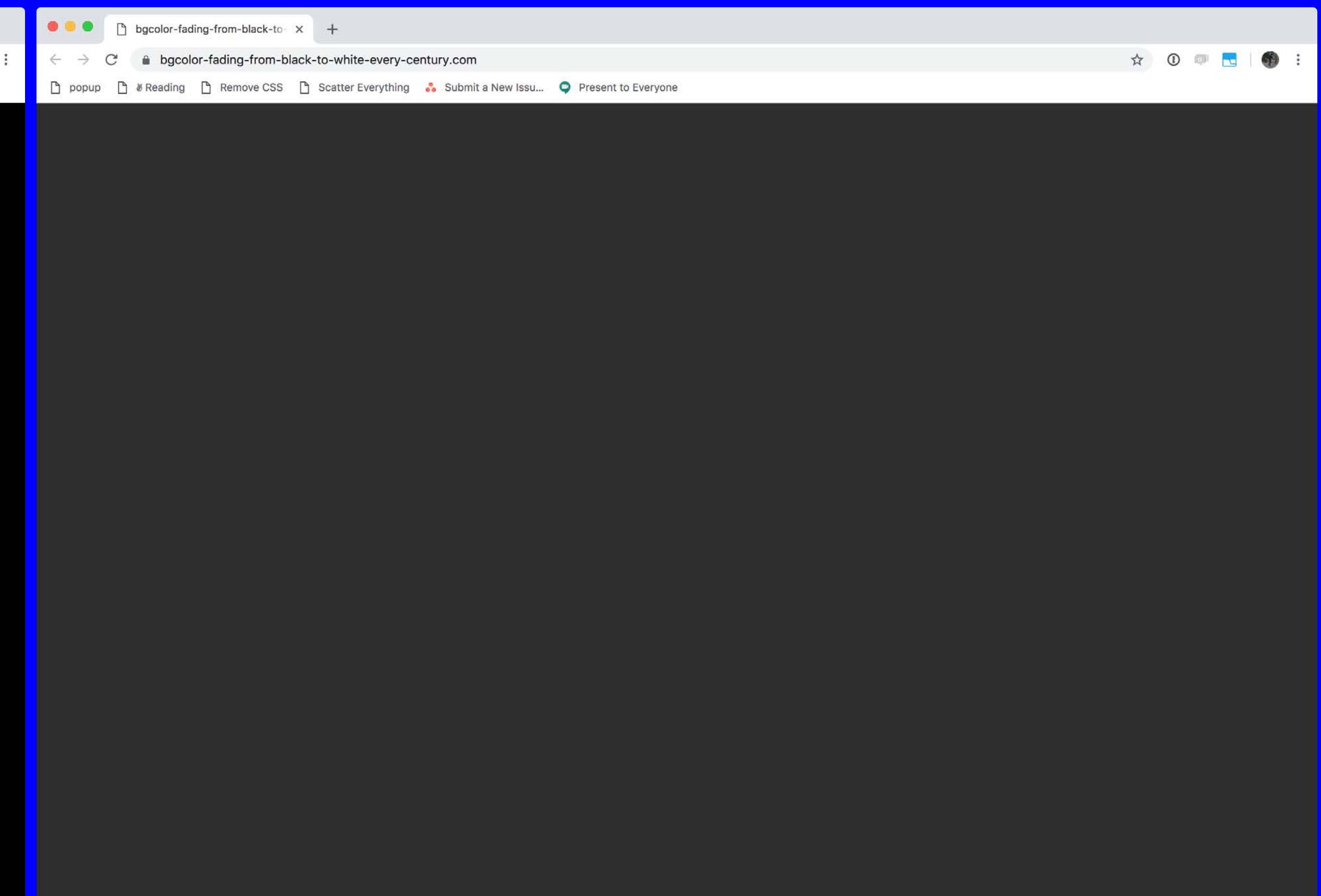
Retaining finger in wrong position loop can not



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 New York Times

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

Opinionator

The Opinion Pages

Opinionator

A GATHERING OF OPINION FROM AROUND THE WEB

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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

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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/>