

# A Necessary Shift: Engaging Coding In Graphic Design Education

PICA CONFERENCE | EDMONTON, ALBERTA, CANADA | MAY 2014

## SUBMITTED ABSTRACT

In current graphic design practice, projects that start with a detailed brief and end with the delivery of a static, substrate-bound outcome are no longer the norm. A shift has taken place toward the design of experiences where designers are called upon to develop services, branding, and interactive outcomes. In order to equip learners to function and lead in graphic design practice, design education must also shift to facilitate learning that enables “useful, usable, and desirable” design (Norman, 2010; Sanders, 1992). Starting in fall 2013, curricular changes were made to bring a “UUD” focus to courses in the undergraduate graphic design program at Miami University in Oxford, Ohio. This paper presents the programmatic structure that was developed, shares findings from its operation, and offers recommendations for the future of experience design in education and practice.

At the core of the “UUD” curricular model is an ideological and practical shift away from aesthetic primacy in graphic design. Curricular changes were implemented in four interaction design courses and two branding courses over a period of two years at Miami University. Learners were not given a list of predetermined design deliverables to produce, rather they were instructed in qualitative research methods which enabled them to observe and record human behaviors that informed the design of useful outcomes. Learners received instruction in front-end web development coding languages like HTML, CSS, and JavaScript that allowed them to develop and test fully functional web sites and web apps to assess their usability. By implementing this tandem of research and development instruction within the graphic design curriculum, learners began producing thinking and outcomes that endeavored to be useful, usable, and desirable.

This paper explains the decision making process taken when choosing to shift programmatic goals to embrace a useful, usable, desirable model that supports the design of experience-focused outcomes. Evaluation of the effects of this curricular shift is based on data collected via student performance assessments, student interviews, an analysis of design outcomes, focus group discussions, and observations. Strengths and weaknesses of implemented courses, technologies, and assignments are reviewed based on research findings. The analysis of the data collected results in recommendations for future curricular development where usefulness and usability are held as key learning objectives equal to quality aesthetic. It supports the implementation of research and coding language instruction into graphic design education in order to promote the future of the discipline where experiences are of increasing importance.

## REFERENCES

- Norman, Donald. “Why Design Education Must Change.” November 2010. Accessed October 2, 2011. [core77.com](http://core77.com).
- Sanders, Elizabeth B.-N. “Converging Perspectives: Product Development Research for the 1990s.” *Design Management Journal* 3 (1992): 49–54.

# Presentation Slides

# A NECESSARY SHIFT

ENGAGING CODING IN GRAPHIC  
DESIGN EDUCATION

PICA CONFERENCE

EDMONTON, ALBERTA, CANADA

MAY 8, 2014

## Dennis Cheatham

ASSISTANT PROFESSOR OF GRAPHIC DESIGN

MIAMI UNIVERSITY | OXFORD, OHIO, UNITED STATES

@DENNISCHEATHAM

#WKBNCH

WKBN.CH



**DENNIS  
CHEATHAM**

As a designer, researcher  
and educator I am an  
advocate for the  
advancement of people.

**RESEARCHING COMMUNITY**  
A case study sparks methodological  
discoveries.

HOWDY.

## NEW *in the* NOTEBOOK



**FALDEROL**

3 August 2013

PROJECT: ONE MONTH IN  
OXFORD

## NEW THOUGHTS *on* DESIGN



**DESIGN**

8 October 2012

MAPPING A DESIGN ECOSYSTEM

A visualization of my design



**DESIGN RESEARCH**

10 April 2013

WINNING RECOGNITION FOR  
WATER SCARCITY SOLUTIONS

Research-informed solutions to



**DESIGN EDUCATION**

11 November 2012

HIERARCHY: A CLASS  
EXPERIMENT

Challenging students to create order

@DENNISCHEATHAM

#WKBNCH

WKBN.CH



# WEBSITES

# WEBSITES

Rigorous, functional, engaging  
interactive information delivery systems.

As a window of a Web browser comes to replace cinema and television screen, a wall in art gallery, a library and a book, all at once, the new situation manifests itself: all culture, past and present, is being filtered through a computer, with its particular human-computer interface.

*LEV MANOVICH, THE LANGUAGE OF NEW MEDIA*

THE MIT PRESS, 2001. 76.

As a window of a Web browser comes to replace cinema and television screen, a wall in art gallery, a library and a book, all at once, the new situation manifests itself: all culture, past and present, is being filtered through a computer, with its particular human-computer interface.

*LEV MANOVICH, THE LANGUAGE OF NEW MEDIA*

THE MIT PRESS, 2001. 76.

# SCRIPTED INTERACTIONS

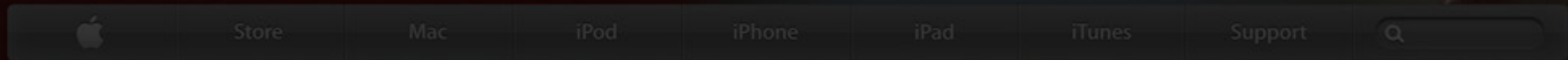
- » Visual Language
- » Textual Language
- » Conceptual Language
- » Information Architecture
- » Device Bias
- » Convention Adherence
- » Cultural References
- » Support for Assistive Devices

As decision makers who determine how and what information is shared, designers have a responsibility to empower users while honoring the integrity of the message they communicate.

“...the user might want to go directly to another page and they should have that option.”



# THE OLD (CURRENT?) WAY



You're more powerful than you think.

iPhone 5 [S]

Watch the film "Powerful" ▶

# INTERFACE DESIGN

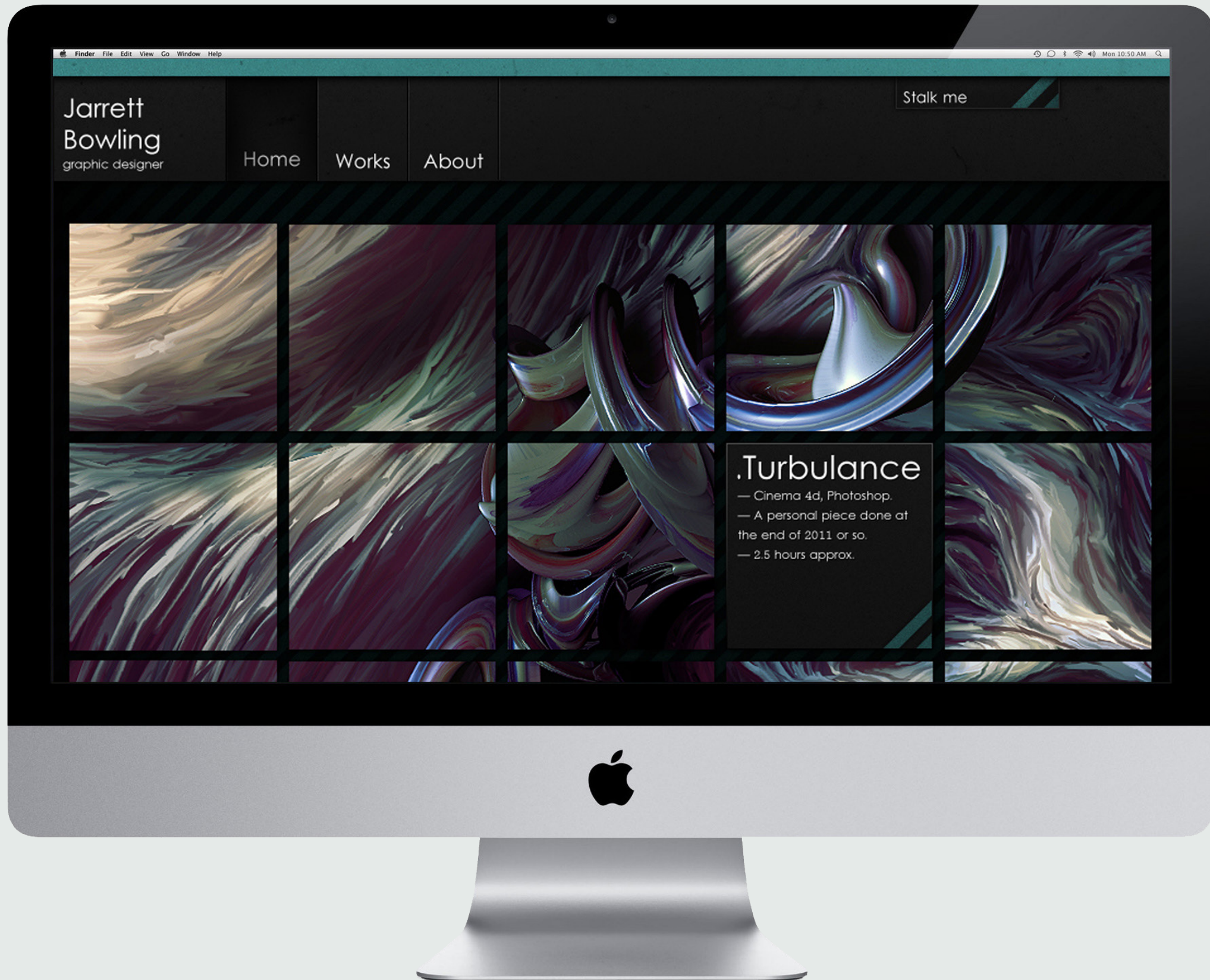
le and the Environment  
y we're trying to do better for the planet.

iPad Air  
What will your verse be?

MacBook Air  
All the power you want. All day long.

# INTERFACE DESIGN

- » aesthetic
- » brand
- » hierarchy
- » static content
- » limited contextual awareness

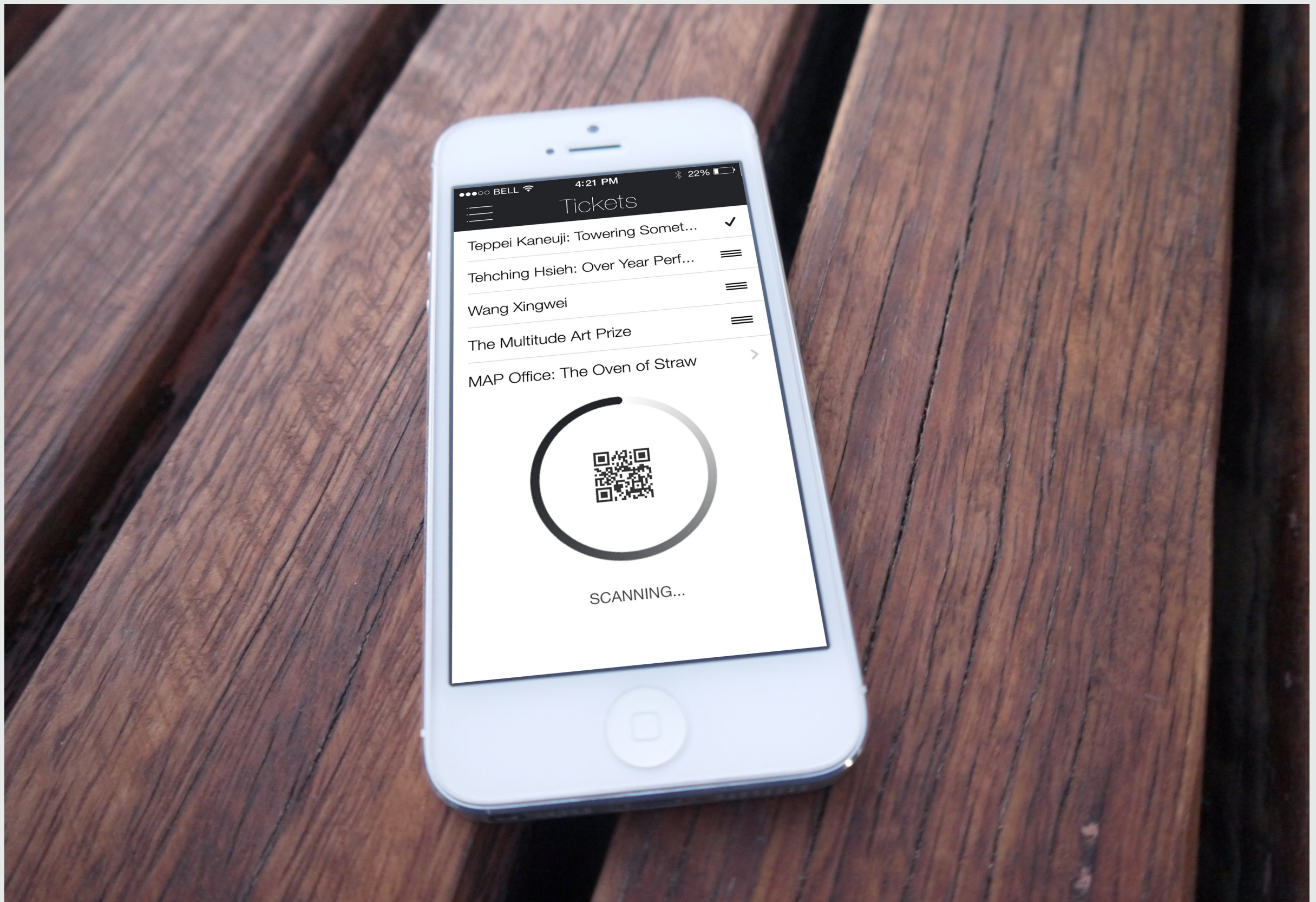














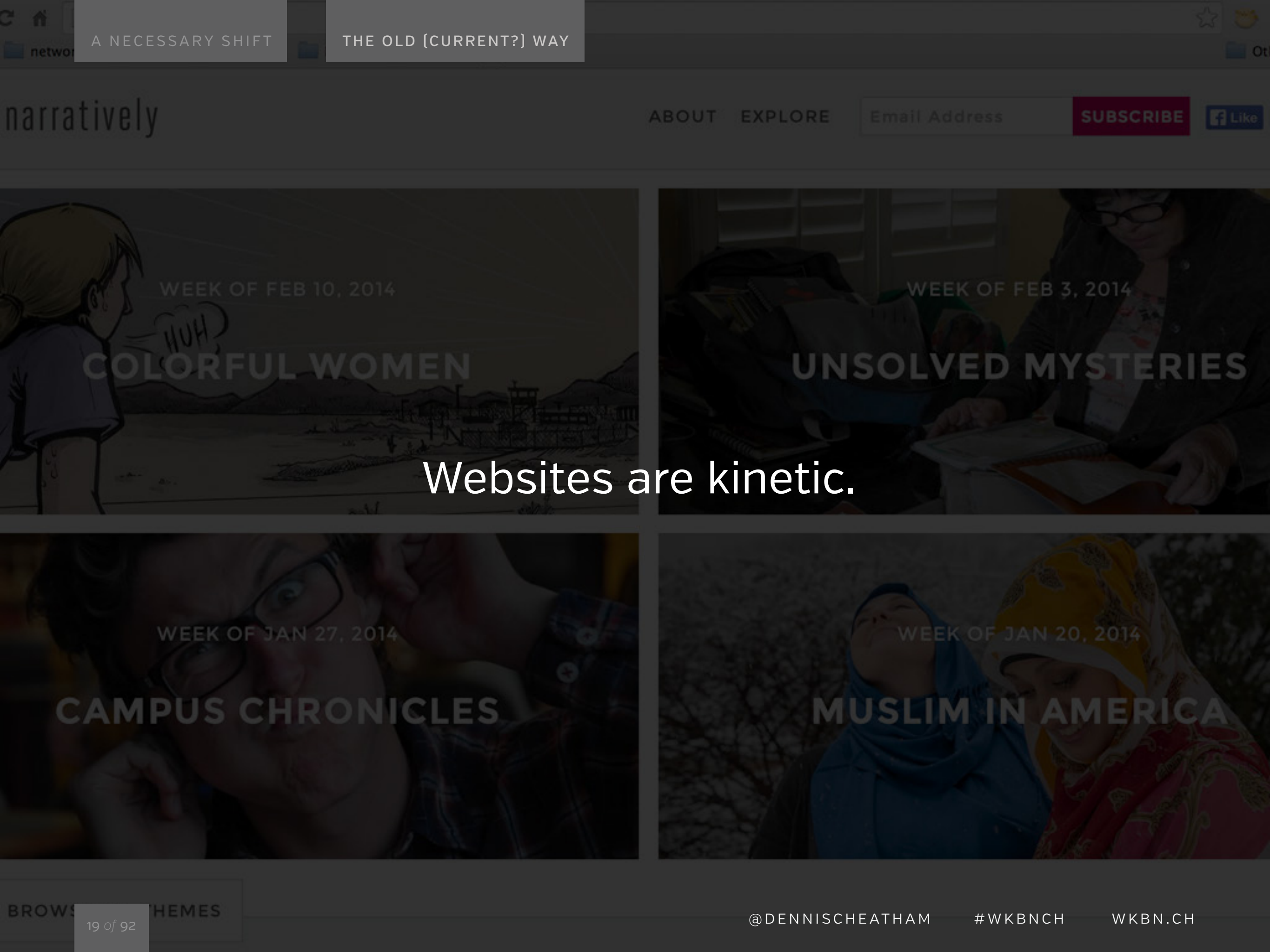
# INTERFACE DESIGN

- » assumptive
- » designer-centric
- » inflexible
- » untested, unproven
- » ignores reality

“The control which designers know in the print medium, and often desire in the web medium, is simply a function of the limitation of the printed page. We should embrace the fact that the web doesn’t have the same constraints, and design for this flexibility. But first, we must “accept the ebb and flow of things.”

*JOHN ALLSOPP, “A DAO OF WEB DESIGN”*

[HTTP://ALISTAPART.COM/ARTICLE/DAO](http://alistapart.com/article/dao), ACCESSED MAY 12, 2012



A NECESSARY SHIFT

THE OLD (CURRENT?) WAY

narratively

ABOUT

EXPLORE

Email Address

SUBSCRIBE

Like

WEEK OF FEB 10, 2014

COLORFUL WOMEN

WEEK OF FEB 3, 2014

UNSOLVED MYSTERIES

Websites are kinetic.

WEEK OF JAN 27, 2014

CAMPUS CHRONICLES

WEEK OF JAN 20, 2014

MUSLIM IN AMERICA

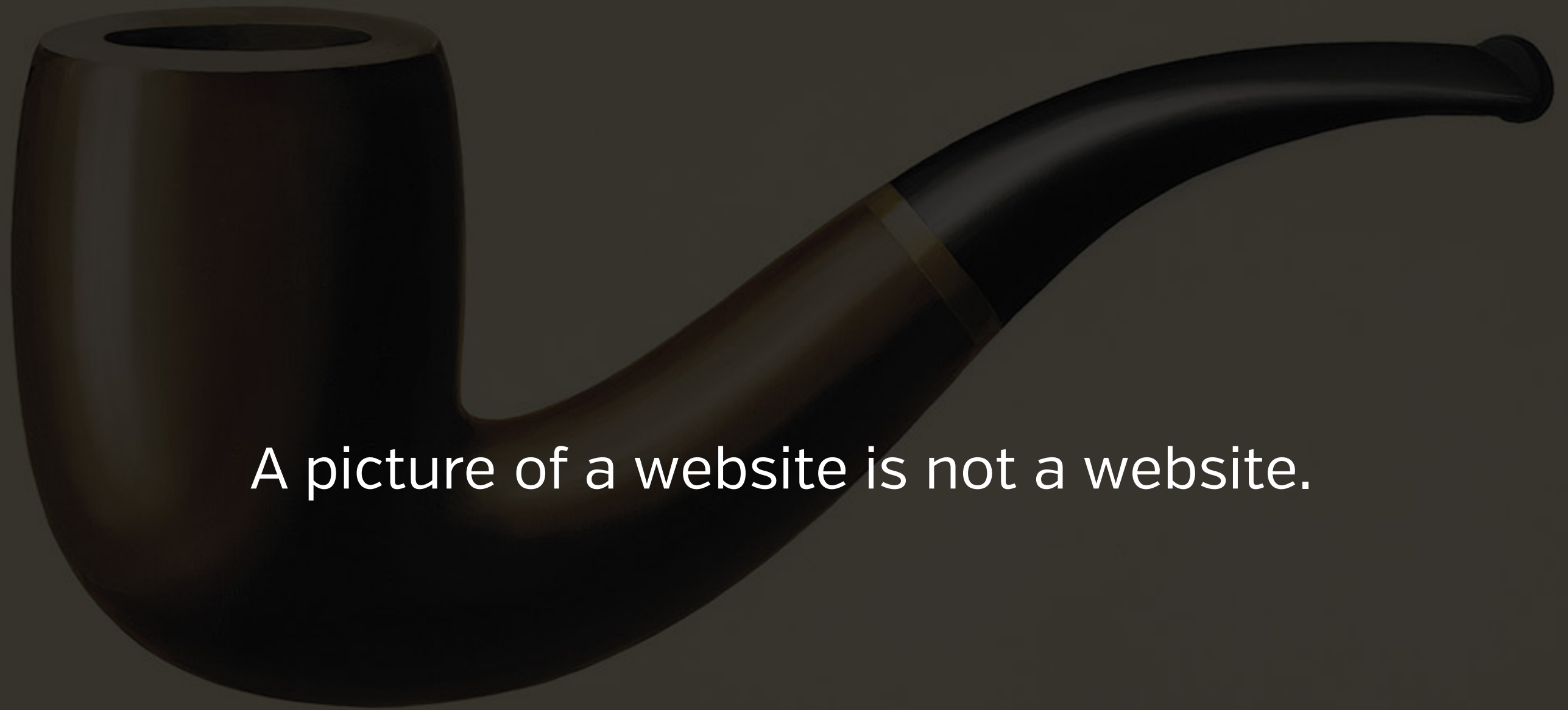
BROWSE THEMES

19 of 92

@DENNISCEATHAM

#WKBNCH

WKBN.CH



A picture of a website is not a website.

*Ceci n'est pas une pipe.*





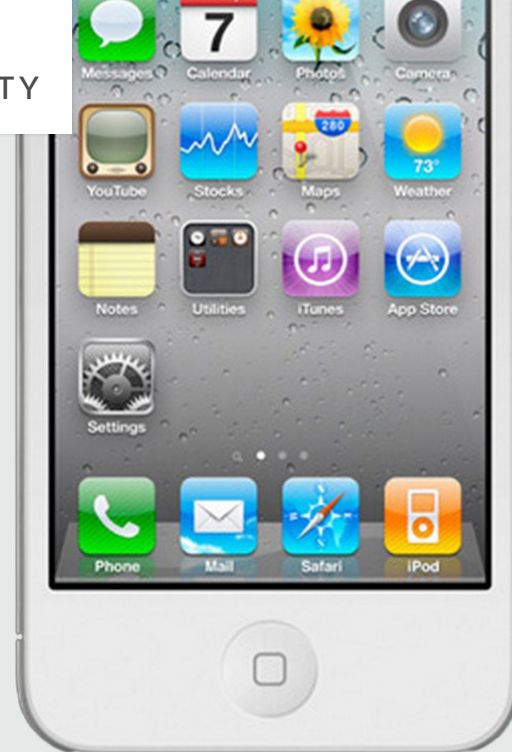
*Ceci n'est pas une pipe.*

# KINETIC COMPLEXITY



A NECESSARY SHIFT

KINETIC COMPLEXITY



@DENNISHEATHAM

#WKBNCH

WKBN.CH



## DEVICE PREFERENCE IS (ALWAYS) SHIFTING

- » In 2011 smartphone sales overtook PC sales
- » Q2 2013: 37% of the PC market were tablets
- » Q3 2013: 250,000,000 smart phones shipped worldwide

CANALYS, REPORTED FEB 3, 2012 AND JUNE 11, 2013

[HTTP://WWW.CANALYS.COM/NEWSROOM/SMART-PHONES-OVERTAKE-CLIENT-PCS-2011](http://www.canalys.com/newsroom/smart-phones-overtake-client-pcs-2011)

[HTTP://WWW.CANALYS.COM/NEWSROOM/HALF-BILLION-PCS-SHIP-2013-TABLET-SALES-ROCKET](http://www.canalys.com/newsroom/half-billion-pcs-ship-2013-tablet-sales-rocket)

A NECESSARY SHIFT

KINETIC COMPLEXITY



# COMPLEXITY

deep content

mobile

user experience

search-friendly

translatable

device-agnostic

memorable

accessible

easy to edit

intuitive

responsive

branded

# EMBRACE COMPLEXITY

TIME

Sign In | Subscribe

CODE RED  
The inside story on rescuing Health

IN THE MAGAZINE

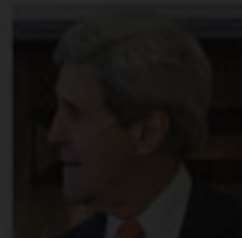
TIME 100:  
Complete L  
Subscribe

In order to create complex, fluid, testable websites, designers must understand and use interaction design tools and methods.



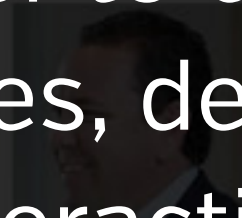
## White House Plans Campus Sex Assault Curbs

A task force convened by President Obama will announce a proposal today that includes advisory recommendations for identifying the scope of the problem and helping respond to schools' concerns about how best to comply with federal law under Title IX



## Kerry Backtracks on Leaked Israel Comment

The Secretary of State wishes he could "rewind the tape" of his widely condemned remarks at a closed-door meeting on Friday, during which he said Israel risks becoming an "apartheid" state, because he has long shown support for Israel and believes in a two-state solution



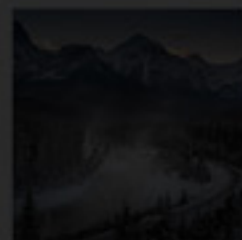
## Kissing Congressman Won't Seek Re-election

Rep. Michael Grimm, who was caught kissing a female aide in a campaign office, will serve out the rest of his term but won't run for Congress again after he was caught smooching a female aide



## South Korean President Apologizes Over Ferry Disaster

President Park Geun-hye apologized on Tuesday for Seoul's "poor initial response" to the sinking of the Sewol ferry, as prosecutors began questioning the chief executive of the company that owned and operated the vessel



## Wi-Fi Comes to the Wilderness

Canada has decided to install wi-fi at up to 20 thrillingly remote locations in some of its stunning national parks. Because what good is enjoying the solitude of the great outdoors when you can't upload some photos to Facebook?



## Craig Ferguson: See Ya, CBS

Another late night host is leaving the network. Craig Ferguson said he will step down in December, marking an overhaul of the network's

Francis by Barack Obama

Benedict Cumberbatch by Colin

Xi Jinping by Jon Huntsman

Can'tonn by T. Boone Pickens

Janet Yellen by Christine Lagarde

Narendra Modi by Fareed Zakaria



The 2014 TIME 100

CHIVAS REGAL  
25 YEARS  
CHIVAS 25 & TIME 100  
Coming together  
celebrate the most influential  
people in the world.

# SHIFT TEACHING



HTML

CSS

JavaScript

CMS

content

SASS

user experience

grid

responsive

web type

JQuery

social media

# HTML content

```
<meta charset="utf-8">
<title>My First Page</title>

<style>
body { background-color: #ffe4cc;
}

</style>

</head>
<body>
  <header>
    <h1>The Romance Begins</h1>
  </header>
  <p>My dearest Amy,</p>
  <p>How are things going for you, my darling?</p>
  <p>Sweetie, I just wanted to tell you that you've always been a wonderful part of my life. Whenever I think of you, I
    melt and get a fuzzy feeling on the inside. Theres just something about you which I can't help liking.</p>
  <p>What person in their sane mind could resist those deep and rich blue eyes of yours which shimmer like bright stars
    in the night sky. I know the moon is a lot bigger and brighter, but its white, not blue, so I can't really compare
    you with that, even though I want to.</p>

  <a href="http://youtu.be/CfpagS_fcq0"></a>

  <a href="images/roses.jpg"></a>

  <p>What's really mystifying is your gorgeous blonde hair which is just as beautiful and radiant as golden heaps of
    straw (the only difference being that your hair cannot be eaten by horses or used to repair cottage roofs).</p>
  <p>I love going out to the restaurants with you, despite the fact I always embarrass you and myself in front of you
    and everyone else. I think its sweet how you roll your eyes upwards and cover your face every time I make chicken
    noises, and its even sweeter how you turn green and vomit up your kidneys whenever I deliberately open my mouth to
    show you what I'm chewing.</p>
  <p>I can't remember if I've already told you this but I really do love your smile. Its such a turn on to look at you
    its one of the many reasons I love being with you my love. Sometimes I wish I could do nothing but stare at your
    smile all day, but I'm not sure that's a good idea my love, as people will probably think I'm some kind of nut case
    and I might get taken away by the men in white coats.</p>
  <p>Hope you have a great Valentines Day my darling lover!</p>
  <p>With all my heart,<br />
  Dennis</p>

</body>
</html>
```

# CASCADING STYLE SHEETS (CSS) style

```
113
114 #wrapper {
115     max-width: 960px;
116     margin-left: auto;
117     margin-right: auto;
118     /* background-color: rgb(109, 143, 190); */
119     margin-bottom: 40px;
120     margin-top: 40px;
121 }
122
123 section {
124     float: left;
125     width: 91.66666666666667%; /* 880 / 960 */
126     margin-left: 2.08333333333333%; /* 20 / 960 */
127     margin-right: 2.08333333333333%; /* 20 / 960 */
128     margin-top: 20px;
129     margin-bottom: 20px;
130     padding-left: 2.08333333333333%; /* 20 / 960 */
131     padding-right: 2.08333333333333%; /* 20 / 960 */
132     padding-top: 20px;
133     padding-bottom: 20px;
134     background-color: rgb(240, 238, 234);
135 }
136
137
138 ul.imagegrid {
139     list-style-type: none;
140     padding: 0;
141     margin: 0;
142     width: 100%;
143     float: left;
144 }
145
146 ul.imagegrid li {
147     width: 180px; /* 180 / 880 */
148     height: 180px; /* 180 / 880 */
149     overflow: hidden;
150     border-radius: 50%;
151     float: left;
152     margin: 2.27272727272727%; /* 20 / 880 */
153 }
154
155 ul.imagegrid li img {
156     width: 300%;
157     height: auto;
158     margin-left: -10%;
159     margin-top: -20%;
160 }
161
162 caption {
163     text-align: center;
```

! HTML5 Boilerplate v4.3.0 | MIT License | ...

\* What follows is the result of much research...

=====

html,button,input,select,textarea...

html

\* Remove text-shadow in selection highlighting

::-moz-selection

::selection

\* A better looking default horizontal rule

hr

\* Remove the gap between images, videos, ...

audio,canvas,img,video...

\* Remove default fieldset styles.

fieldset

\* Allow only vertical resizing of textareas.

Aa Text [star] Decoration [link] Layout

Background: [color] rgb(99, 197, 187) [dropdown]

Image: [image] [plus]

Position X: [dropdown] Y: [dropdown]

Repeat: [dropdown] Att: [dropdown]

Shadow: [dropdown] [checkbox] [dropdown]

Offset X: [dropdown] Y: [dropdown]

Opacity: [slider] %

Borders: [checkbox] [checkbox] [checkbox] [checkbox] [checkbox]

Style: [dropdown]

Color: [color] [dropdown]

Thickness: [dropdown]



WORKSPACE

index.html

main.css

Spring Responds

PROJECT FILES

loveletters

images

index.html

leopard.html

styles.css

positioning

sassy

spring

.htaccess

404.html

apple-touch...omposed.png

credits

crossdomain.xml

css

main.css

normalize.css

doc

favicon.ico

humans.txt

img

index.html

js

main.js

plugins.js

vendor

jquery-1.10.2.min.js

jquery.localScroll.min.js

jquery.scrollTo.min.js

modernizr-2.6.2.min.js

preloader.js

```
1 // Avoid 'console' errors in browsers that lack a console.
2 (function() {
3     var method;
4     var noop = function () {};
5     var methods = [
6         'assert', 'clear', 'count', 'debug', 'dir', 'dirxml', 'error',
7         'exception', 'group', 'groupCollapsed', 'groupEnd', 'info', 'log',
8         'markTimeline', 'profile', 'profileEnd', 'table', 'time', 'timeEnd',
9         'timestamp', 'trace', 'warn'
10    ];
11    var length = methods.length;
12    var console = (window.console = window.console || {});
13
14    while (length--) {
15        method = methods[length];
16
17        // Only stub undefined methods.
18        if (!console[method]) {
19            console[method] = noop;
20        }
21    }
22 }());
23
24 // Place any jQuery/helper plugins in here.
25
```

# JAVASCRIPT

## interaction and triggered events

HTML

CSS

JavaScript

CMS

content

SASS

user experience

grid

responsive

web type

jQuery

social media

Useful, usable, and desirable.

*LIZ SANDERS [1992]*

“CONVERGING PERSPECTIVES: PRODUCT DEVELOPMENT RESEARCH FOR THE 1990s.”

DESIGN MANAGEMENT JOURNAL 3 [1992]: 49–54.










Not all things designed are useful,  
usable, and desirable...

## Saskatchewan Design/Advertising Awards &amp; Speaker Series

 GRAPHIC DESIGNERS OF CANADA  
DESIGNERS GRAPHIQUES DU CANADA

HAVE A MISSION •  
QUESTION EVERYTHING •  
COLLABORATE • ASSUME  
STUDY THE PAST • KEEP  
COMMUNICATE • DRAW

Design is the silent ambassador  
of your brand.

—Paul Rand

FEATURED CASE STUDY

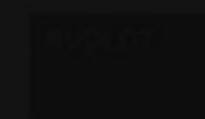


Fine Raw Dark Chocolate

By: Patrick Belanger CGD

NATIONAL MARCH 14

Seven25  
Design &  
Typography



PROMOTIONS & SPONSORS

## GDC Launches New Identity

GDC Launches a new identity, first in nearly  
50 years.



## ...but websites should be.

Words to live and work by – Poster sale to  
benefit GDC Foundation

THIS IS WHAT  
A **DESIGNER** DOES.

EXAMINE THE EVOLVING ROLE OF DESIGNERS IN THE 21ST CENTURY  
STICK TO THE POINT – USE 140 CHARACTERS ON TWITTER #WCD00014  
EXPRESS IT – UPLOAD YOUR CREATIONS ON THE WCD FACEBOOK PAGE  
MAKE IT HAPPEN – ORGANISE A LOCAL EVENT, DESIGN DO, SEMINAR, ETC. IN YOUR COMMUNITY

50 icograda  
Building communities

## This is What a Designer Does

World Communication Design Day 2014 @DENNISCEATHAM

#WKBNCH

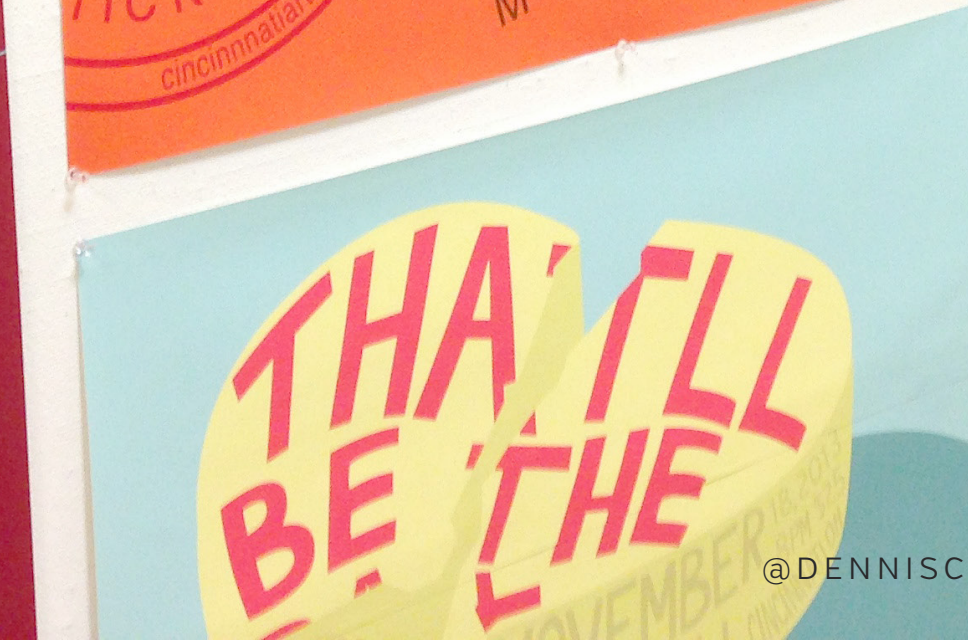
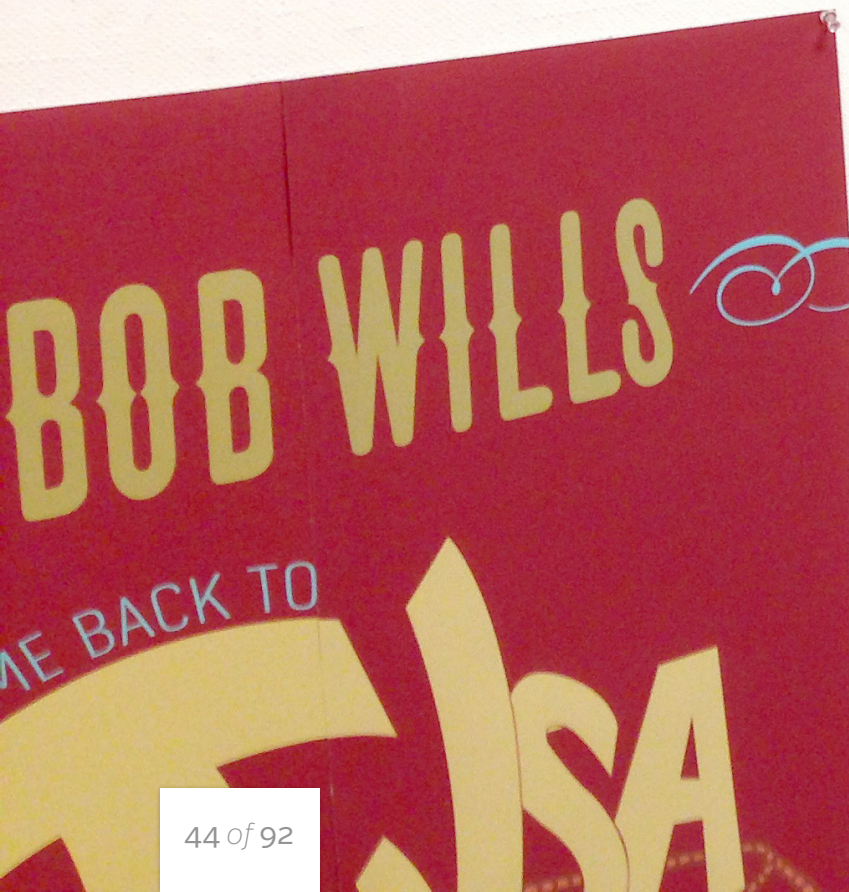
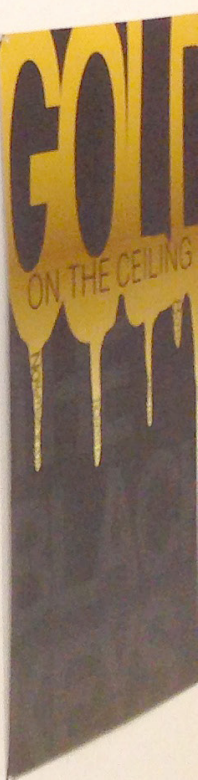
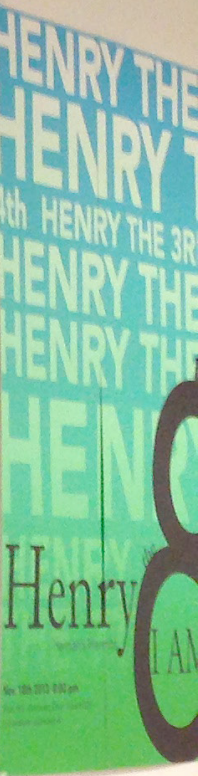
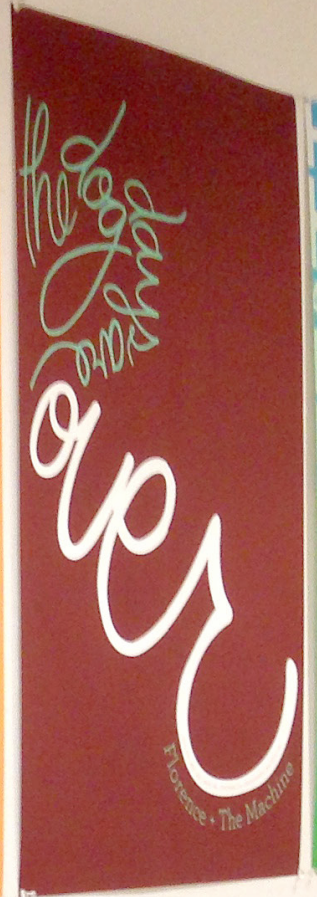
WKBN.CH

# GRAPHIC DESIGN MIAMI

## PROGRAM OVERVIEW

- » 1 year in Foundations, 3 years in Graphic Design
- » Students apply to gain admittance into the program
- » 35–40 students apply each year
- » 19–22 accepted each year
- » Roughly 60 students in the entire program













LANGUAGE  
WE CAN HELP.



MATTHEW'S  
LENDING  
LIBRARY







# EMBRACING THE SHIFT







# FOUNDATIONS FOR INTERACTION DESIGN

- » 19 Students
- » 2nd and 3rd year students at Miami
- » 2nd Semester in Graphic Design
- » No coding experience
- » Next semester, Applied Interaction Design



<b>SYLLABUS</b>	<b>KINETIC TYPE</b>	<b>MWF 2:30-4:20 PM</b>	<b>DENNIS CHEATHAM</b>
	ART 254	136 ART BUILDING	DENNIS.CHEATHAM@MIAMIOH.EDU
	SPRING 2014	MIAMI UNIVERSITY	WED 1-2 PM, THU 1-3 & BY APPT.
	3 CREDIT HOURS	GRAPHIC DESIGN	201 HIESTAND HALL

DATE	DUE	IN CLASS	ASSIGNMENT
M	JAN 27	COURSE OVERVIEW: Syllabus, attendance, supplies list & contracts  LECTURE: Interaction basics	Study
W	JAN 29	WORKSHOP: Espresso and File System Management  Parts of an HTML5 Page "Hello World!"	Comp
F	JAN 31	INTERACTION BASICS QUIZ  CRITIQUE: "Hello World!"  WORKSHOP: File Transfer Protocol (FTP) and HTML text	Comp
M	FEB 3	"Hello World!"  WORKSHOP: HTML text, styling, line breaks, rules, and semantic markup	HTML
W	FEB 5	WORKSHOP: HTML page sections	Comp
F	FEB 7	CRITIQUE: HTML Love Notes, Page 1  WORKSHOP: HTML lists and links	HTML
M	FEB 10	CRITIQUE: HTML Love Notes, all pages  WORKSHOP: HTML images and image types	Comp Notes
W	FEB 12	HTML Love Notes	HTML Tournament
F	FEB 14	HTML Quiz  WORKSHOP: CSS: Introduction external sheets, cascading, inheritance, color, and opacity	CSS Ba
M	FEB 17	CRITIQUE: CSS Basics Assignment  WORKSHOP: commenting, div, spans; ID and class attributes	refine
W	FEB 19	CRITIQUE: CSS Basics Assignment  WORKSHOP: fonts, typography, alignment, and web fonts	refine

<b>SYLLABUS</b>	<b>KINETIC TYPE</b>	<b>MWF 2:30-3:30 PM</b>
	ART 254	136 ART
	SPRING 2014	MIAMI U
	3 CREDIT HOURS	GRAPHIC

### COURSE DESCRIPTION

### Kinetic Type

Kinetic Type integrates the use of interaction design to create useful, usable, and desirable interactive experiences. CSS, SASS, and responsive web design are common visual-verbal formats indicative of the graphic design processes necessary for the production of useful experiences. (*"Useful, usable, and desirable"* was coined by Liz Sanders.)

### CREDITS AND PREREQUISITES

ART 254 is a 3 credit hour course. Completion of

### COURSE OBJECTIVES

- » Grow an understanding of HTML and build
- » Grow an understanding of Cascading Style
- » Grow an understanding of Syntactically Aw
- » Understand the function of responsive web
- » Introduce interactive web design technolog
- » Strengthen an understanding of how digital
- » Illustrator aid the creation of contemporary
- » Develop an understanding of website design
- » Develop technical skills proficiency and digi
- » Develop awareness of and ability to account
- » Strengthen an understanding of how typog
- » Develop an ability to create intuitive user in
- » engaging

## COURSE STRUCTURE

This class is primarily structured around assignments. 50–60% of class time will be spent on in-class work and discussion of work completed outside of class between each class on average.

## COURSE CONTENT

Through a series of exercises and assignments, digital products. With a focus on typography a clarity of communication supported by vector

## SYLLABUS

**KINETIC TYPE**  
ART 254  
SPRING 2014  
3 CREDIT HOURS

**MWF 2:30-4:20 PM**  
136 ART BUILDING  
MIAMI UNIVERSITY  
GRAPHIC DESIGN

## GRADING AND EVALUATION

Students can earn up to a total of 1000 points for their work on assignments, projects, labs, and quizzes. All students start the semester with zero points. The more you work, the more points you earn. Your goal is to earn 1000 points by the end of the semester. This is a challenge, but with hard work and dedication to growing your design knowledge and skills, you can achieve it.

50	IXD BASICS	QUIZ
50	HTML QUIZ	QUIZ
50	CSS QUIZ	QUIZ
50	"HELLO WORLD!"	ASSIGNMENT
100	HTML LOVE NOTES	ASSIGNMENT
100	CSS BASICS	ASSIGNMENT
100	CSS ADVANCED	ASSIGNMENT
200	RESPONSIVE PROJECT	PROJECT
300	FINAL PROJECT	PROJECT

1000 TOTAL POSSIBLE POINTS

**PENALTIES (UP TO -5% PER ASSIGNMENT AND PROJECT)**

As a student who is pursuing an advanced degree in a program in the field of \_\_\_\_\_, I will be able to perform in the following areas:

CRAFT: supercomps | presentation | technical proficiency

PERFORMANCE: attitude | deadlines | engagement | pr

PROFESSIONALISM: following instructions | critique | cl

Following the points earned for each grading component

total for failing to meet the above expectations. The maximum deduction is -5% of each grade (except for quizzes).

**FAILURE BONUSES (UP TO +10% PER ASSIGNMENT AND**

As a designer you can not hope to achieve excellence unless you exceed expectations. Should you attempt work that is above and beyond the call of duty and failure bonus points to reflect the risks taken, especially if it results in additional work.

## RECOMMENDED TEXTS

HTML and CSS: Design and Build Websites by Jon Duckett

HTML5 for Web Designers by Jeremy Keith

CSS3 for Web Designers by Dan Cederholm

*SASS for Web Designers* by Dan Cederholm

Responsive Web Design by Ethan Marcotte

## REQUIRED SOFTWARE

- » CS6/Adobe Creative Cloud  
(specifically Photoshop & Illustrator)
- » Espresso (\$75, <http://macrabbbit.com/espresso>)  
*HTML/CSS/JavaScript/PHP Text Editor*
- » Access to a variety of web browsers

# EMBRACE COMPLEXITY (DOING)





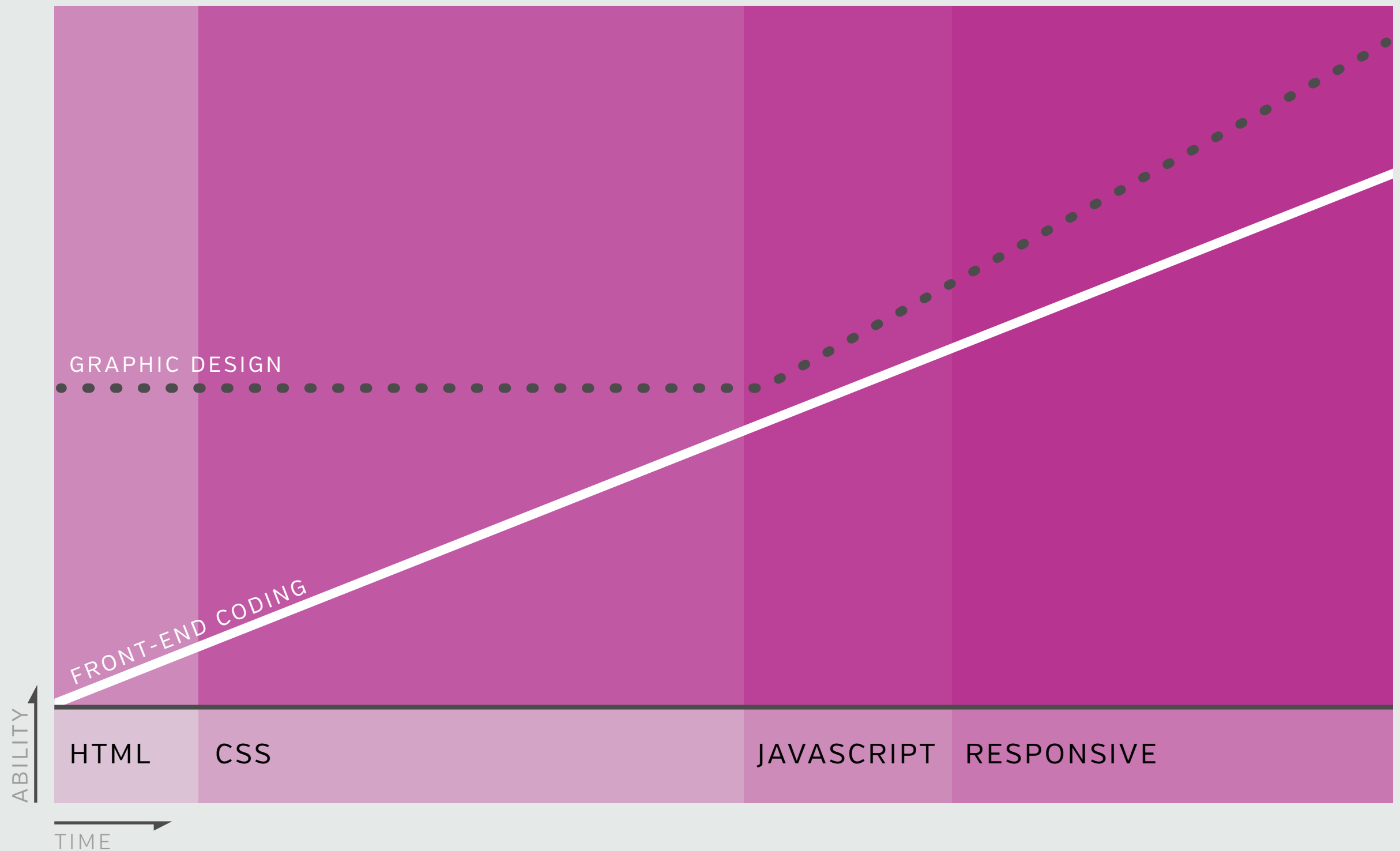


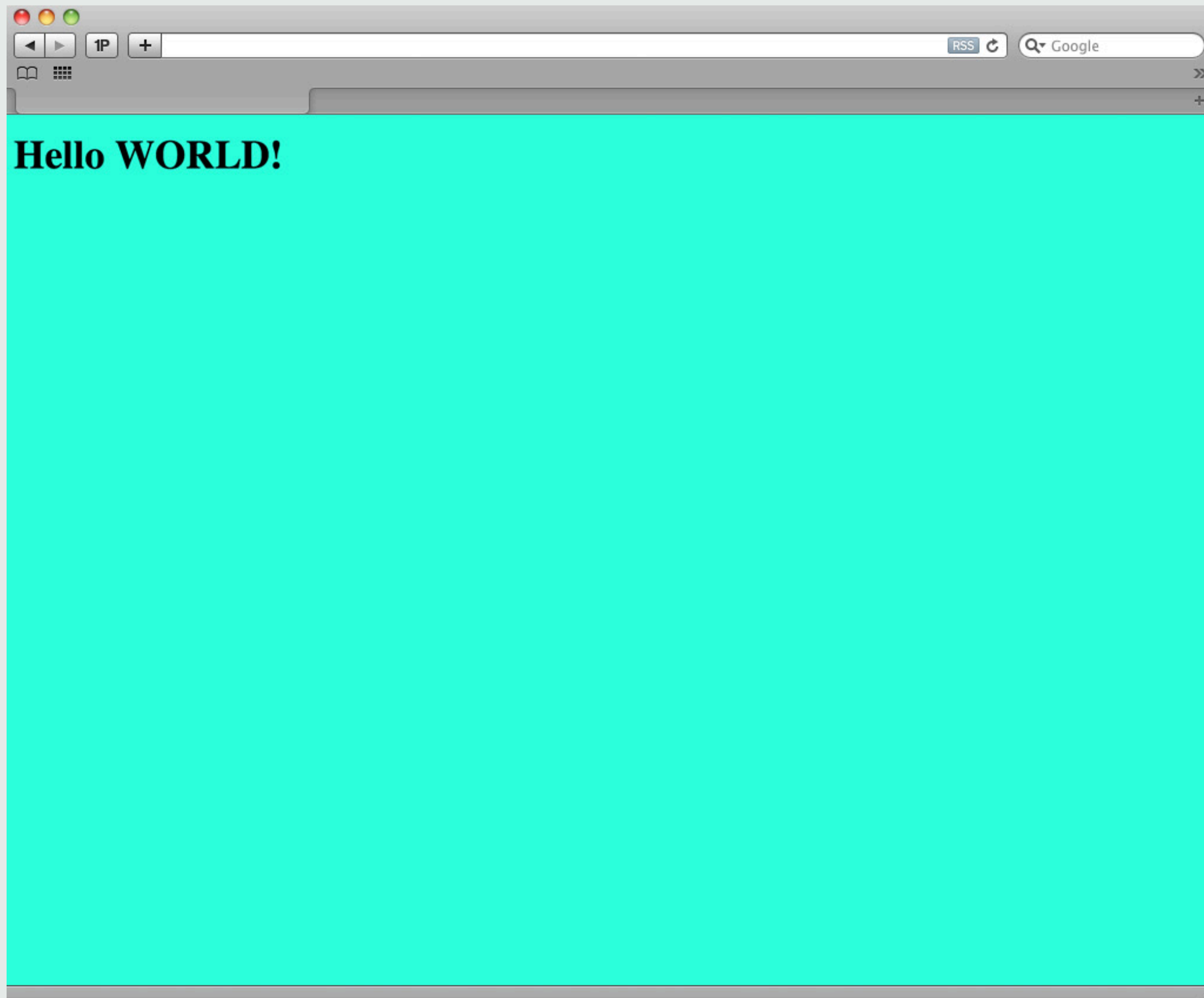
## TOOLS OF THE SHIFT

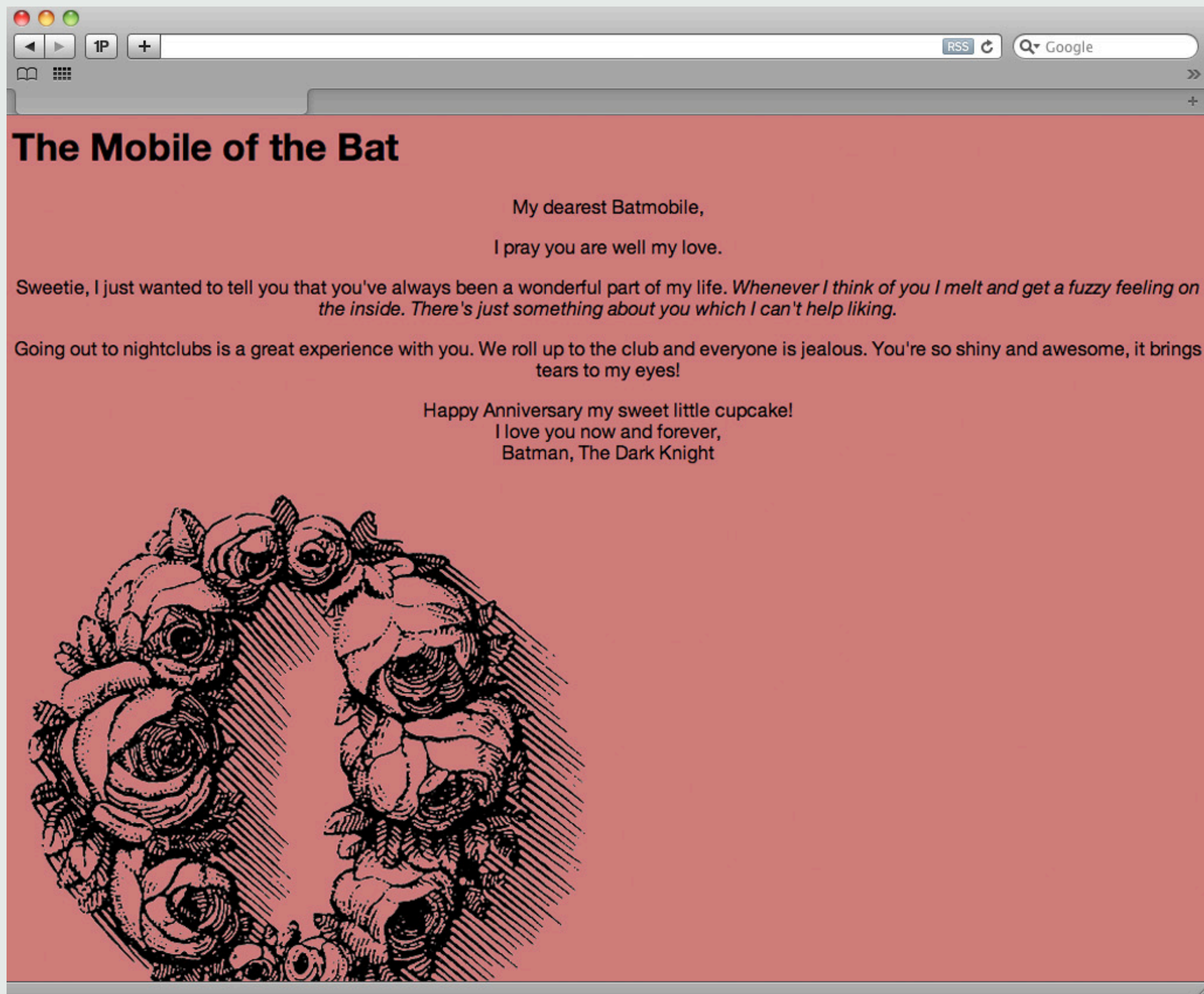
- » *Espresso* text editor software
- » Server space provided for each student
- » *HTML and CSS: Design and Build Websites* by Jon Duckett [optional]
- » Resources posted at class website
- » In-class workshop exercises and on-screen critiques



# CURRICULAR FOCUS OVER 14 WEEKS











1P

+

RSS

Q

Google

>>

+

# The SECRET OF Kells

*The animated story of the boy behind the famed Book of Kells*



## About the Film

*Secret of Kells* is an animated film produced in 2009 by Les Armateurs. Directed by Tomm Moore and Nora Twomey, this Oscar nominee will warm your hearts as you follow the adventures of Brendan (Evan McGuire) and Aidan (Mick Lally) as they rally together to protect the treasured Book of Kells from harm.

## Film Style

The mood of *Secret of Kells* is in part inspiring and in part foreboding. Color, texture, and illustrations inspired by the Chi Rho page from the Book of Kells take the audience on a journey

## Plot

The theme of *Secret of Kells* is "light over dark". Journey back in time in Ireland's past where mystery, adventure and light are plagued by threats of treacherous raids from the evil that lurks





Tuits halloumi cauliflower cheese cottage cheese swiss boursin fondue caerphilly. Cow port-salut camembert de normandie macaroni cheese feta who moved my cheese babybel boursin. Red leicester roquefort boursin squirty cheese jarlsberg blue castello caerphilly chalk and cheese. Lancashire." "I love cheese, especially airedale queso. Cheese and biscuits halloumi cauli.

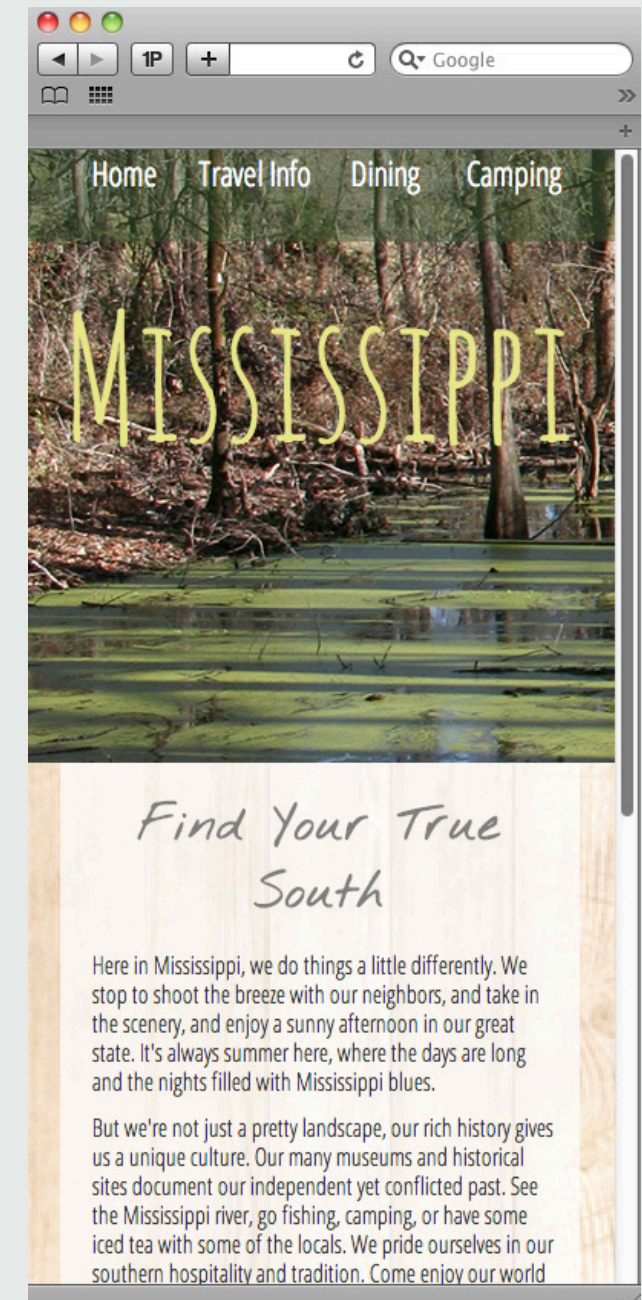
### A Casual Setting

"I love cheese, especially airedale queso. Cheese and biscuits halloumi cauliflower cheese cottage cheese swiss boursin fondue caerphilly. Cow port-salut camembert de normandie macaroni cheese feta who moved my cheese babybel boursin. Red leicester roquefort boursin squirty cheese

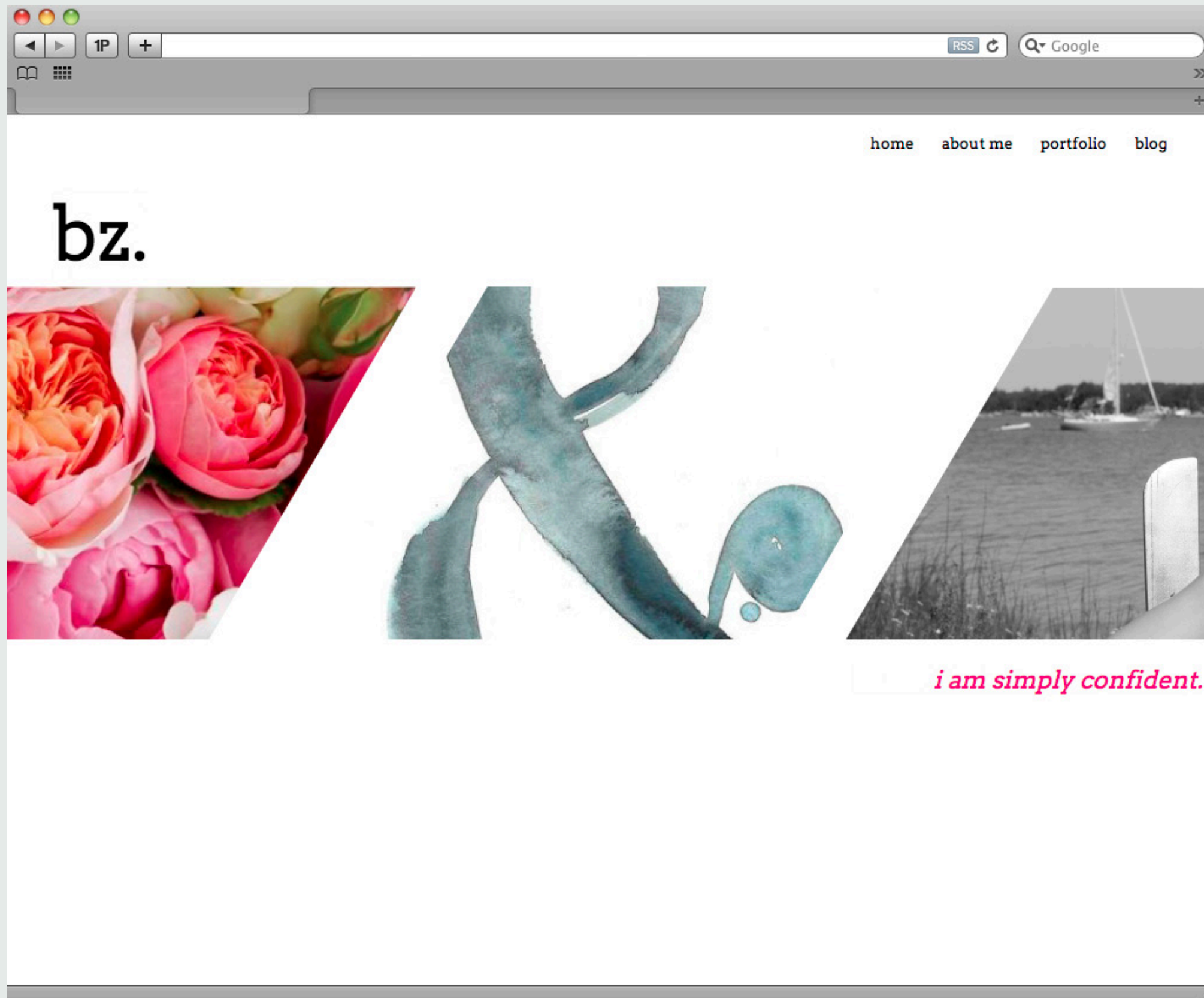
### Here to Stay

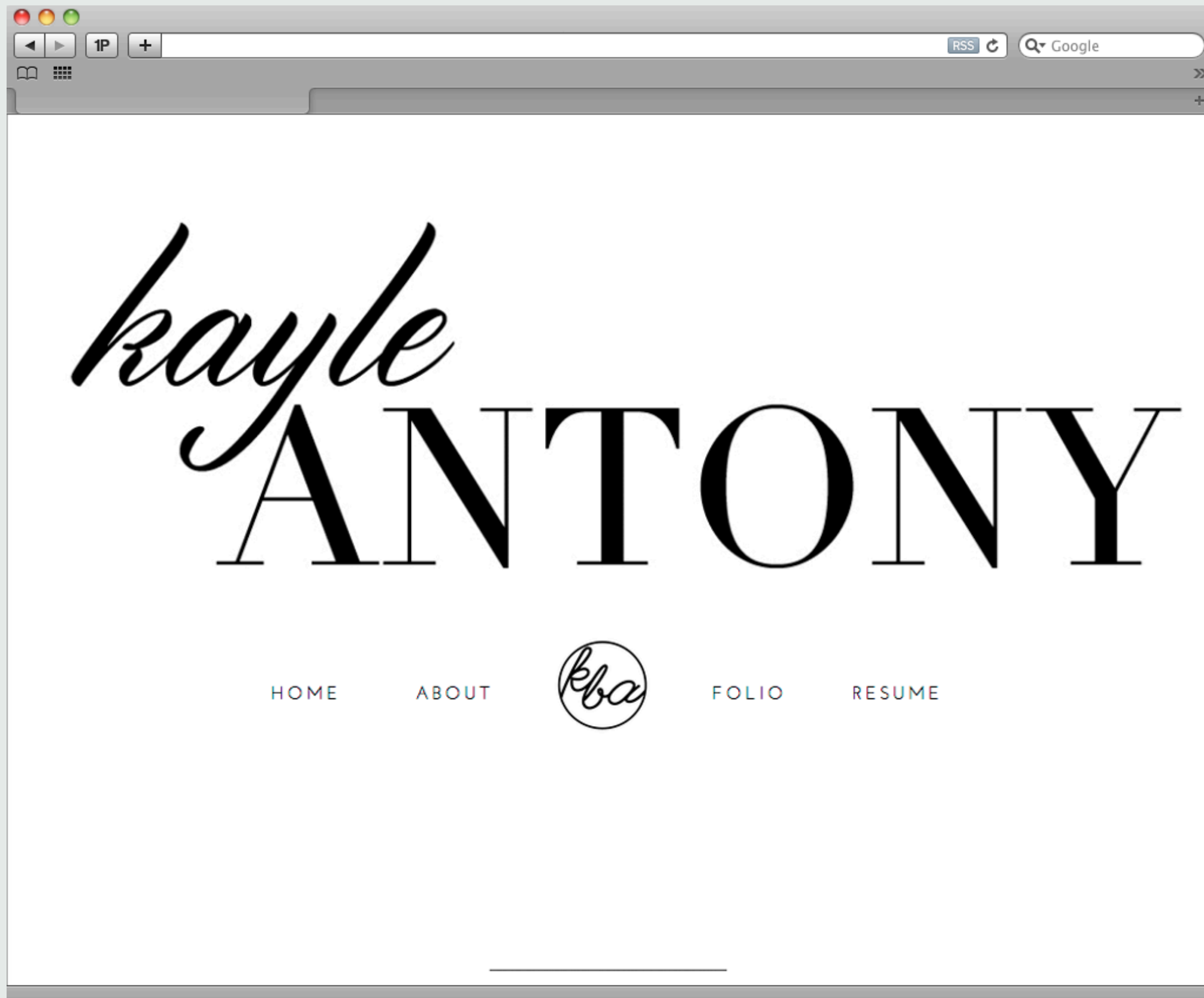
The Web 2.0 style bubble burst a long time ago, but if you're feeling nostalgic for the days of bevelled buttons, gradients and stickers, then



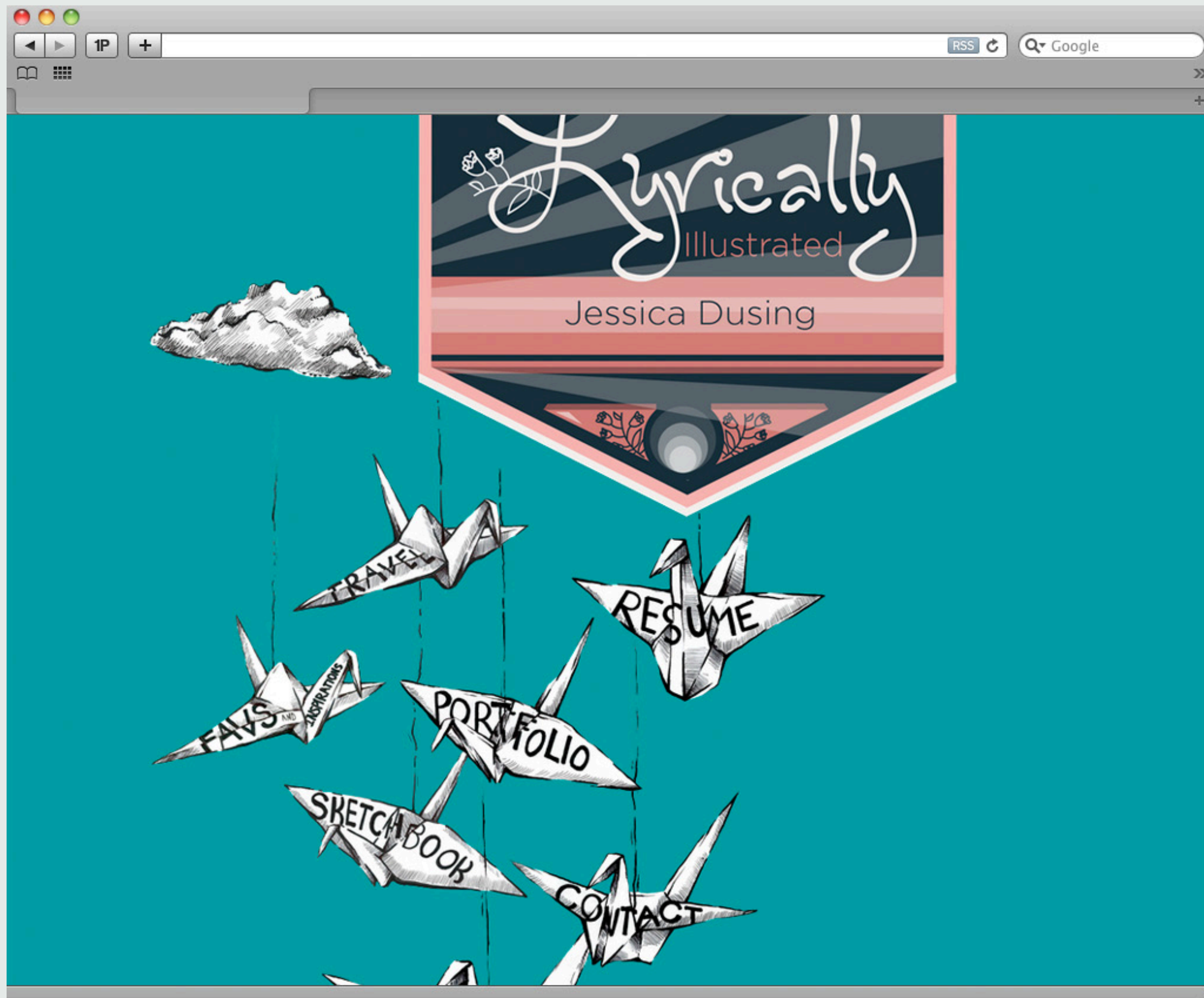




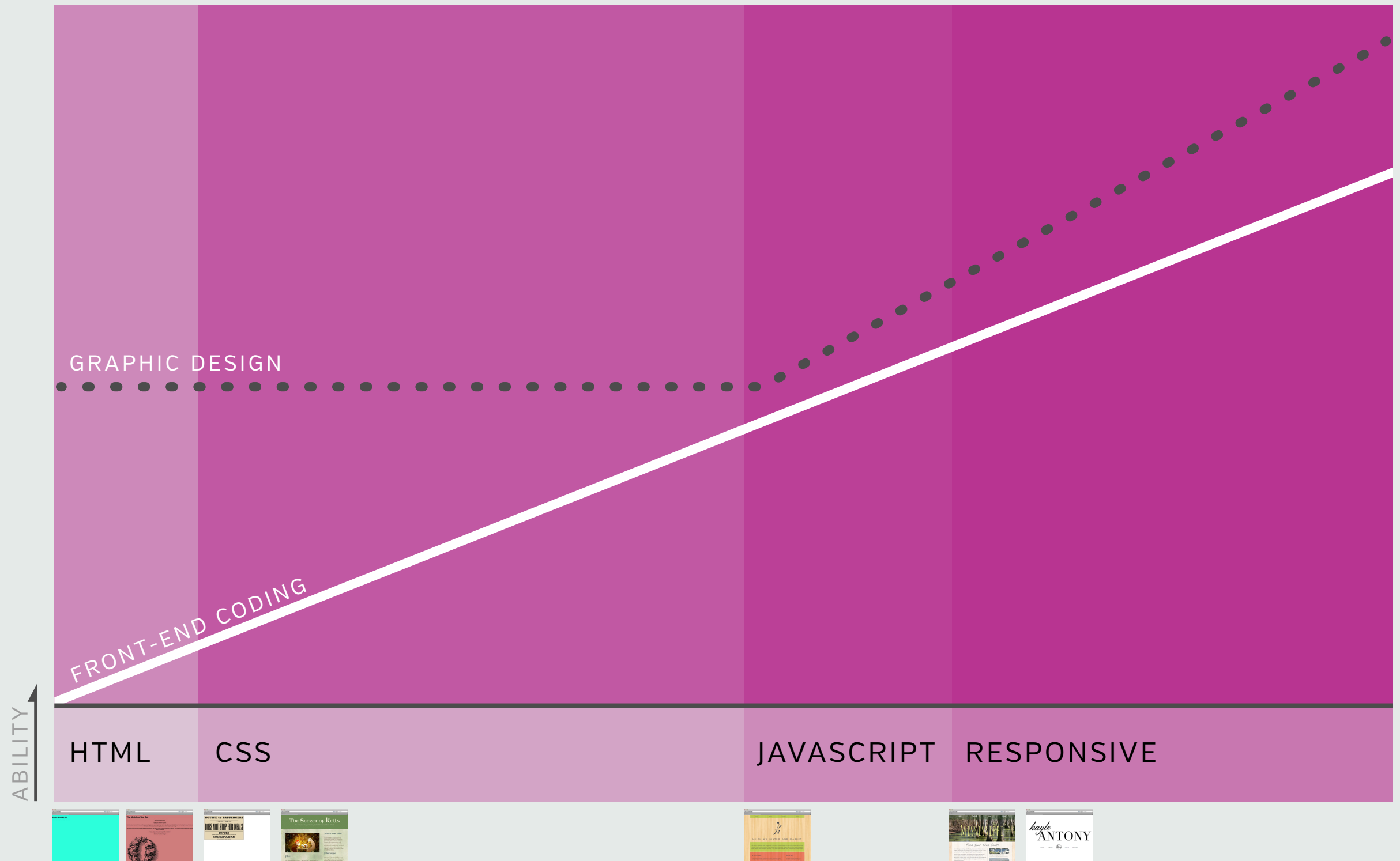








# CURRICULAR FOCUS OVER 14 WEEKS



# EMBRACE COMPLEXITY (THINKING)

user experience

empathy

evidence-  
based design

experimentation

ethics

details

content

non-linear

human-centered



# ENCOURAGING ENGAGEMENT

- » Failure Bonuses
- » Code Tournaments
- » Field Observations

PERFORMANCE: attitude | deadlines | engagement | proactivity/curiosity

PROFESSIONALISM: following instructions | critique | class interaction | participation

Following the points earned for each grading component, penalties may be levied against the earned total for failing to meet the above expectations. The maximum number of points a student can be penalized is -5% of each grade (except for quizzes).

#### **FAILURE BONUSES** (UP TO +10% PER ASSIGNMENT AND PROJECT)

As a designer you can not hope to achieve excellence unless you try new things and push your work beyond expectations. Should you attempt work that is above and beyond the assignment, you could potentially earn failure bonus points to reflect the risks taken, especially if such risks produce failures, re-starts, revisions, and additional work.

**RECOMMENDED TEXTS**

- HTML and CSS: Design and Build Websites* by Jon Duckett
- HTML5 for Web Designers* by Jeremy Keith
- CSS3 for Web Designers* by Dan Cederholm
- SASS for Web Designers* by Dan Cederholm
- Responsive Web Design* by Ethan Marcotte

**RECOMMENDED SOFTWARE**

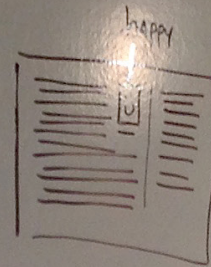
- » CS6/Adobe Creative Cloud  
(specifically Photoshop & Illustrator)
- » Espresso (\$75, <http://macrabbbit.com/espresso>)
- HTML/CSS/JavaScript/PHP Text Editor*



CSS

```
<div class="happy">  
</div>
```

happy {



happy = 50px wide  
with caption

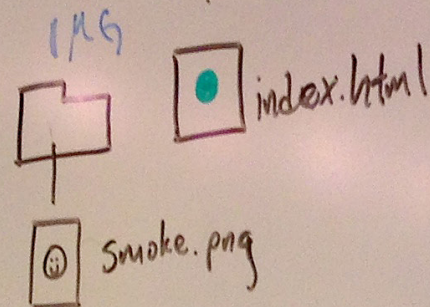
content {

1 3- 19  
3 3- 3  
5 5-  
7 5-  
9 11-

div class="content">  
>>

15 15  
19 19  
7 7





body {  
background-image: <sup>url</sup>url("img/smoke.png") <sup>top left repeat</sup>top left repeat

<div class="box"> CHAMPIONS </div>

.box {

width: 500px;  
height: 500px;

border-left: 1px #cccccc;  
border-right: 1px #cccccc;

• "box" is 500px x 500px ✓

• background image is "smoke.png" repeated

• border on left is 1px #cccccc

• border on right is 1px #000000

.box {

width: 500px;

height: 500px;

background: url("img/smoke.png") top left repeat;

border-right: 1px #000000;

border-left: 1px #cccccc;

}















# EMBRACE THE SHIFT (DOING & THINKING)

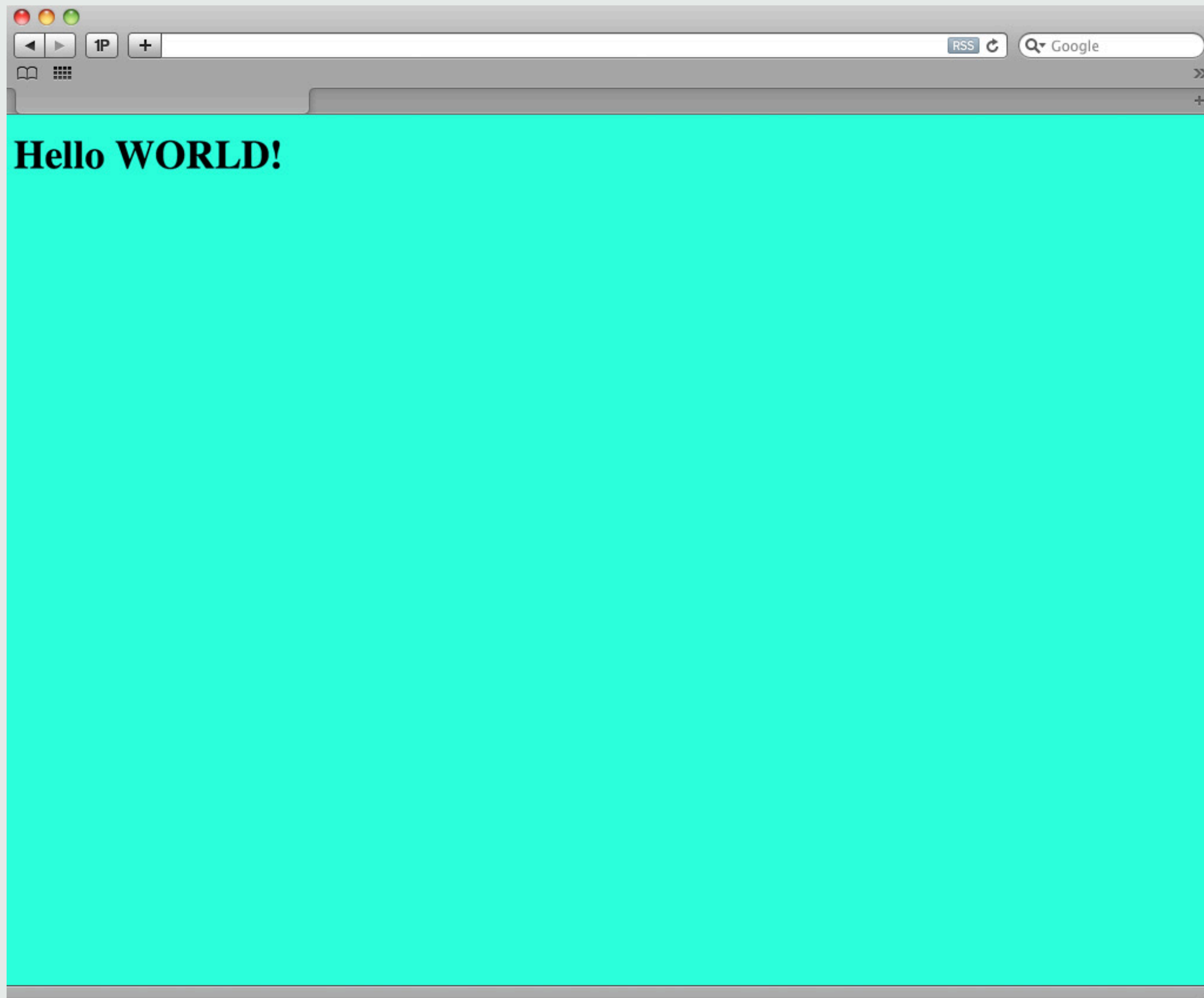


# OUTCOMES

# STUDENT GROWTH

- » critical thinking & attention to detail
- » empathy with the unseen user
- » systems thinking
- » collaborative working
- » excitement about interaction design

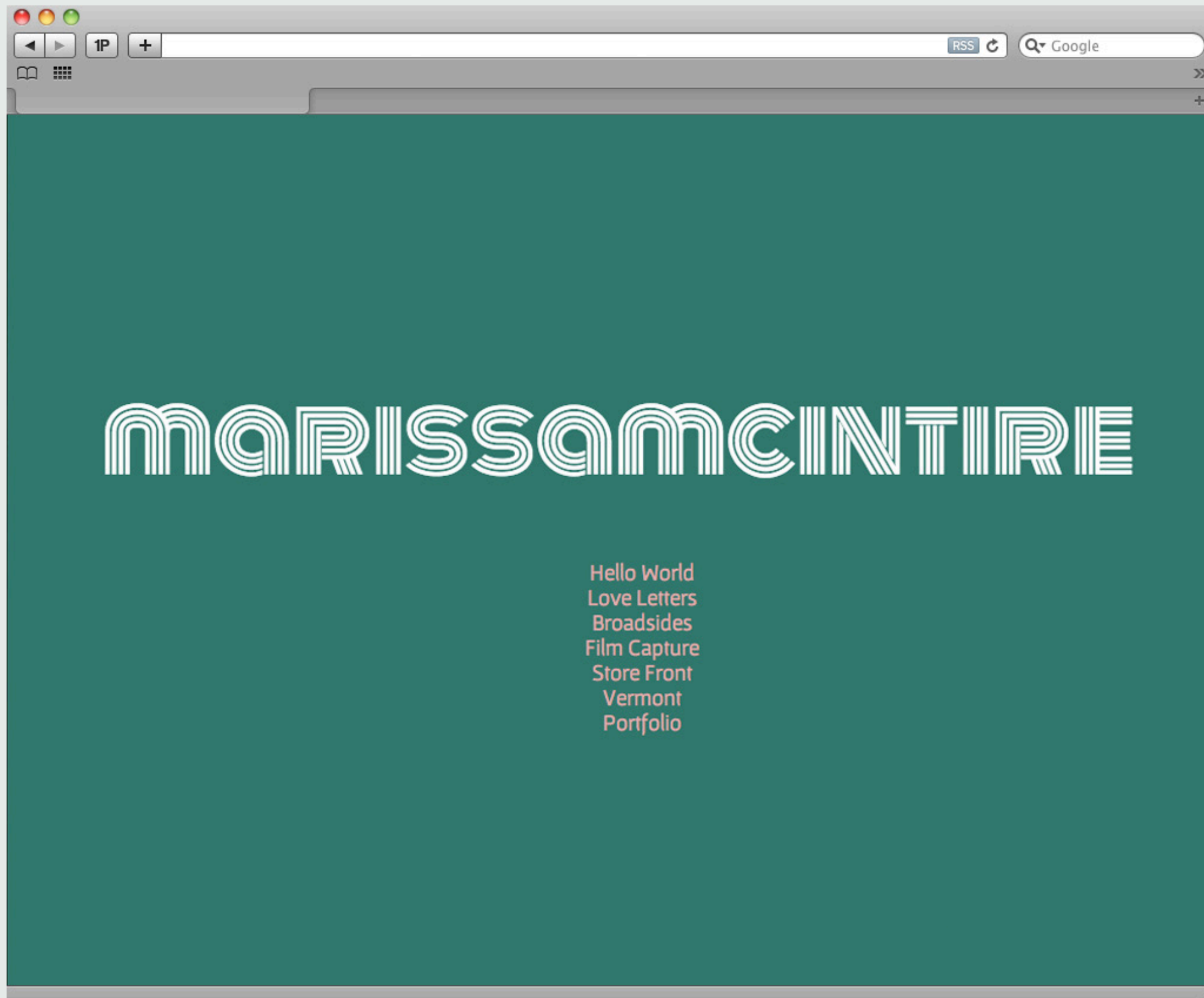




“I can’t remember a time before ***this.***”









## STUDENT PERFORMANCE

- » Clear understanding of HTML and CSS
- » Very limited knowledge of JavaScript
- » Comfortable taking others' code and dissecting it
- » Four students experimented beyond project requirements (and received bonuses)

## STUDENT REACTIONS

- » Typically know where to look to diagnose a problem
- » Increased grit and patience when solving problems
- » Proud of their accomplishments
- » Cheering (really!)



“Oh no—she’ll be all the way  
back at ‘Hello World!’”

“This is very unforgiving.”



“...but what’s it going to do when  
you go responsive?”

# A FOUNDATION FOR MOMENTUM



# LOOKING FORWARD

# REVISIONS

- » clearly delineate hierarchy of HTML elements
- » introduce browser developer tools early on
- » reduce fear of math involved in responsive web design development
- » allow more time for copy and paste JavaScript practice
- » develop a “canon” of articles and resources



# CURIOSITIES

- » the effects of systems thinking
- » reduced fear of further coding development?
- » improved self-confidence?
- » usability as a dominant factor in other work?
- » likelihood of going into an interaction design career

# WEBSITES

Rigorous, functional, engaging  
interactive information delivery systems.

THANK YOU

# Dennis Cheatham

ASSISTANT PROFESSOR OF GRAPHIC DESIGN  
MIAMI UNIVERSITY | OXFORD, OHIO, UNITED STATES

@DENNISHEATHAM    DENNISHEATHAM.COM  
#WKBNCH    DESIGNWORKBENCH.COM