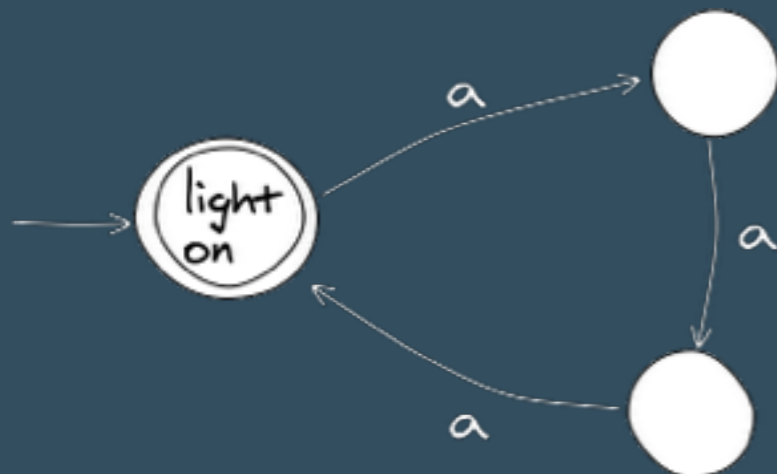

Spring 2015 - Berkeley, CA



CS24

FRESHMAN SEMINAR FOR CS SCHOLARS

WEEK 2 - WEB TECHNOLOGIES

— SEPARATION OF CONCERNS - THE MODEL-VIEW-CONTROLLER —

ONE OF THE MOST SUCCESSFUL SOFTWARE ARCHITECTURES

HTML/CSS/JS
RAILS/EMBER/NODE
INTERNET PROTOCOL STACK

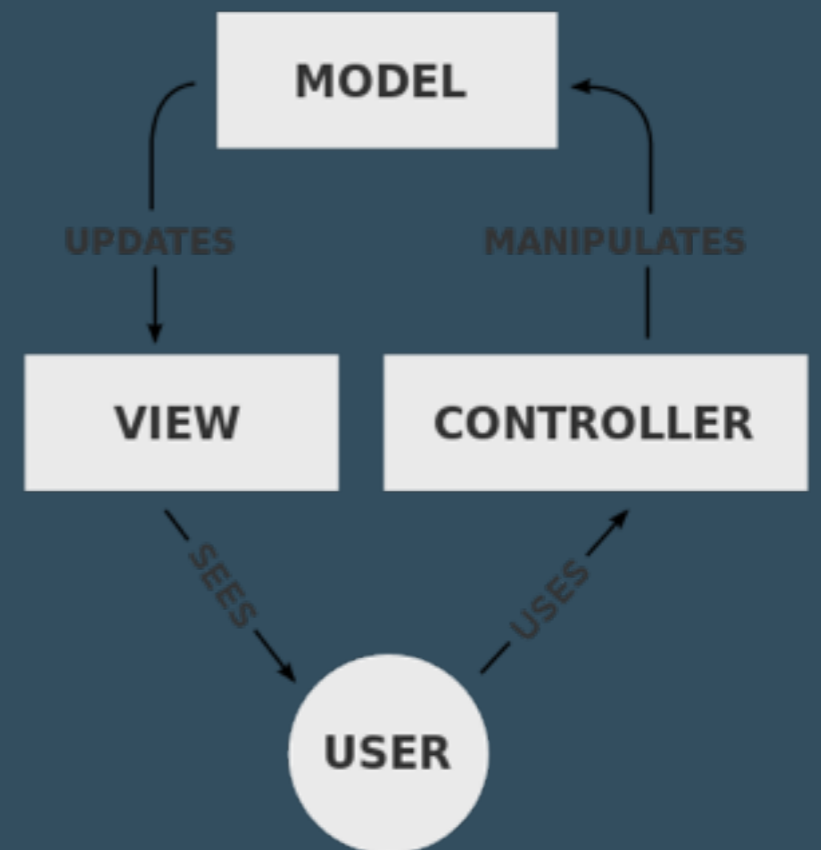
WINS

SOC IMPLICITLY CREATES DISCIPLINES ALLOWING USERS TO DEVELOP SPECIALIZED SKILLS USING A SUBSET OF CONCERNS

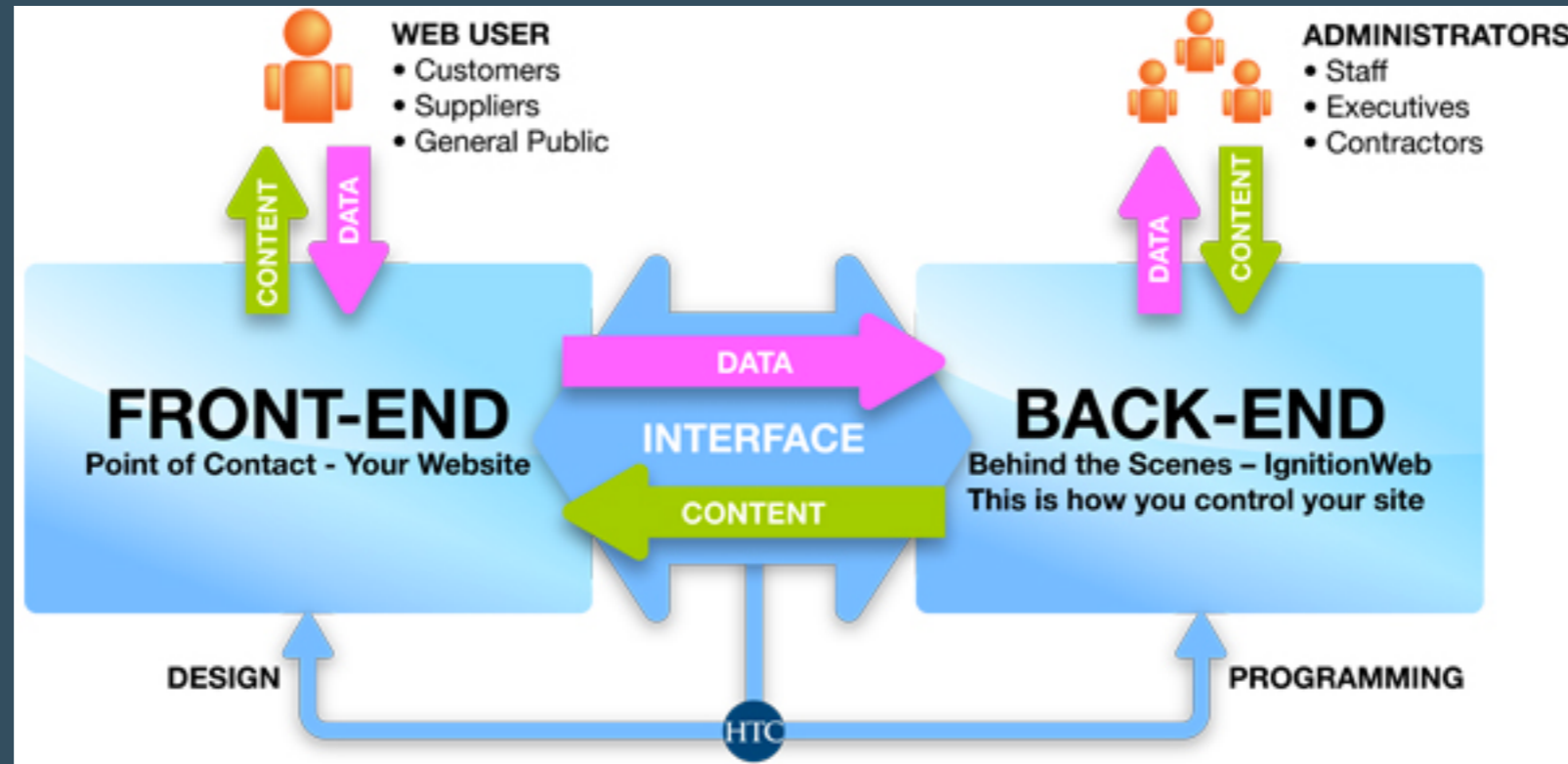
ENABLES A SCAFFOLD FOR SPECIALIZED USERS TO ADOPT COMPLEMENTARY SKILLS GRADUALLY.

DRAWBACKS

EASY TO HAVE TOO MANY CONCERNS
BECOMES TOO ABSTRACTED
SOMETHING SIMPLE REQUIRES X DIFFERENT FILES/MODULES



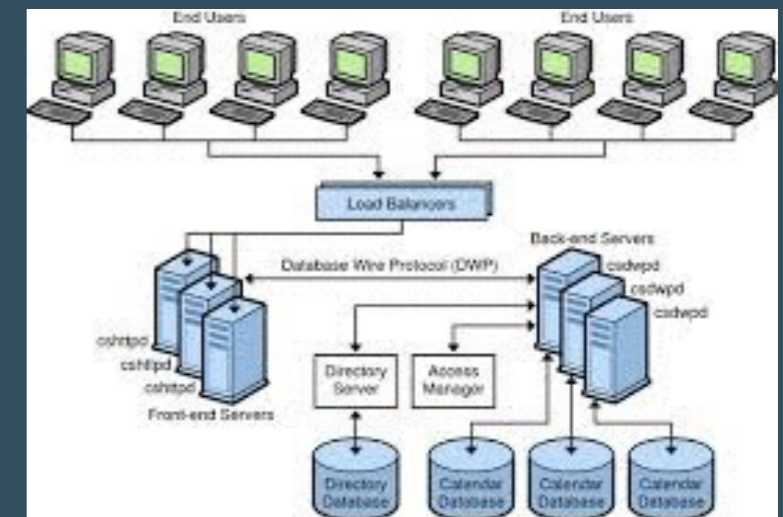
Web Technologies



Human-Centered Design



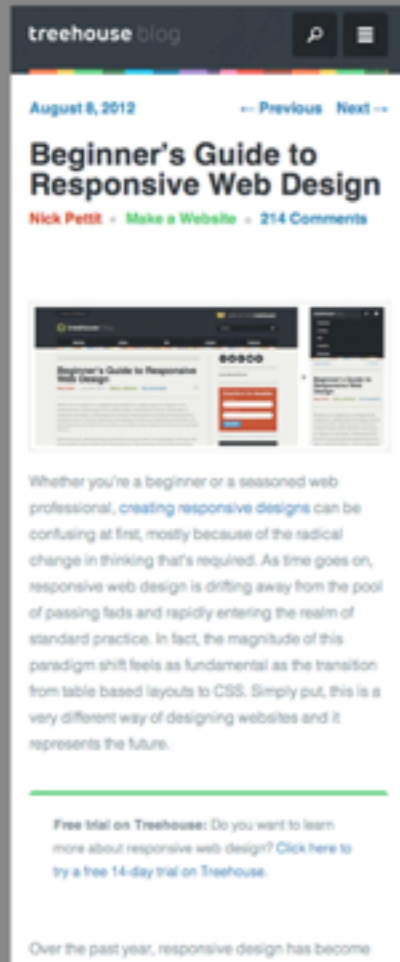
System-Centered Design



Design Research



Growing pain - Internet of Things - Diversity of Form Factors



MOBILE



TABLET



DESKTOP

MARKUP LANGUAGES

<HTML>

HYPertext MARKUP
LANGUAGE

```
<DIV ID="MSG">
  <H1>
    HELLO WORLD!
  </H1>
  <SPAN CLASS="RED"></
SPAN>
</DIV>
```

MARKDOWN

```
MESSAGE
-----
* HELLO WORLD
* HOLA MUNDO
* KON'NICHIIWA SEKAI
```

LATEX

```
\SECTION
\TEXTIT{HELLO WORLD}
```

XML

EXTENSIBLE MARKUP
LANGUAGE

```
<MSG>
  <GREETING>
    HELLO WORLD!
  </GREETING>
  <FACE EXPRESSION = "ANGRY"/>
</MSG>
```

STYLING

<STYLE TYPE="TEXT/CSS">

HYPertext MARKUP LANGUAGE

```
.MYSTYLE{  
  COLOR: RED;  
}
```

SASS

COMPILED CSS

```
$PRIMARY-COLOR: #333;
```

```
.MYSTYLE{  
  COLOR: $PRIMARY-COLOR;  
}
```

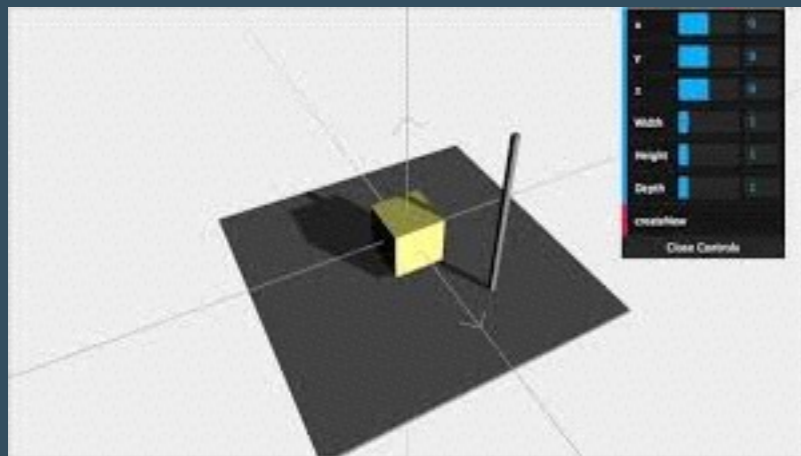
INTERACTIVITY

JAVASCRIPT

```
document.getElementById("demo").innerHTML =  
"Hello JavaScript";
```

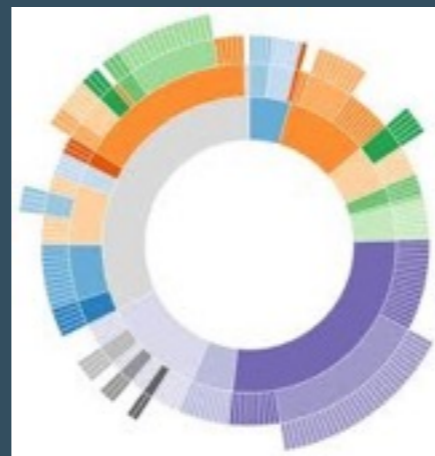
JQUERY

```
$("#demo").html("Hello JQuery");
```



THREEJS

WEB GRAPHICS



D3JS

DATA-DRIVEN DOCUMENTS



NODEJS

JS AS A GENERAL PURPOSE
PROGRAMMING LANGUAGE

IN-CLASS FIRST APP

TODOS

COOKBOOK #2 QA #2

**REMOVED ANSWER QUESTION ASSIGNMENT
POST SOLUTIONS THOUGH ON A SEPARATE DOC**

QUESTIONS ?

Week 4

RELATIONAL DATABASES

RECIPES (WK3) AND QUESTIONS (WK3) DUE
