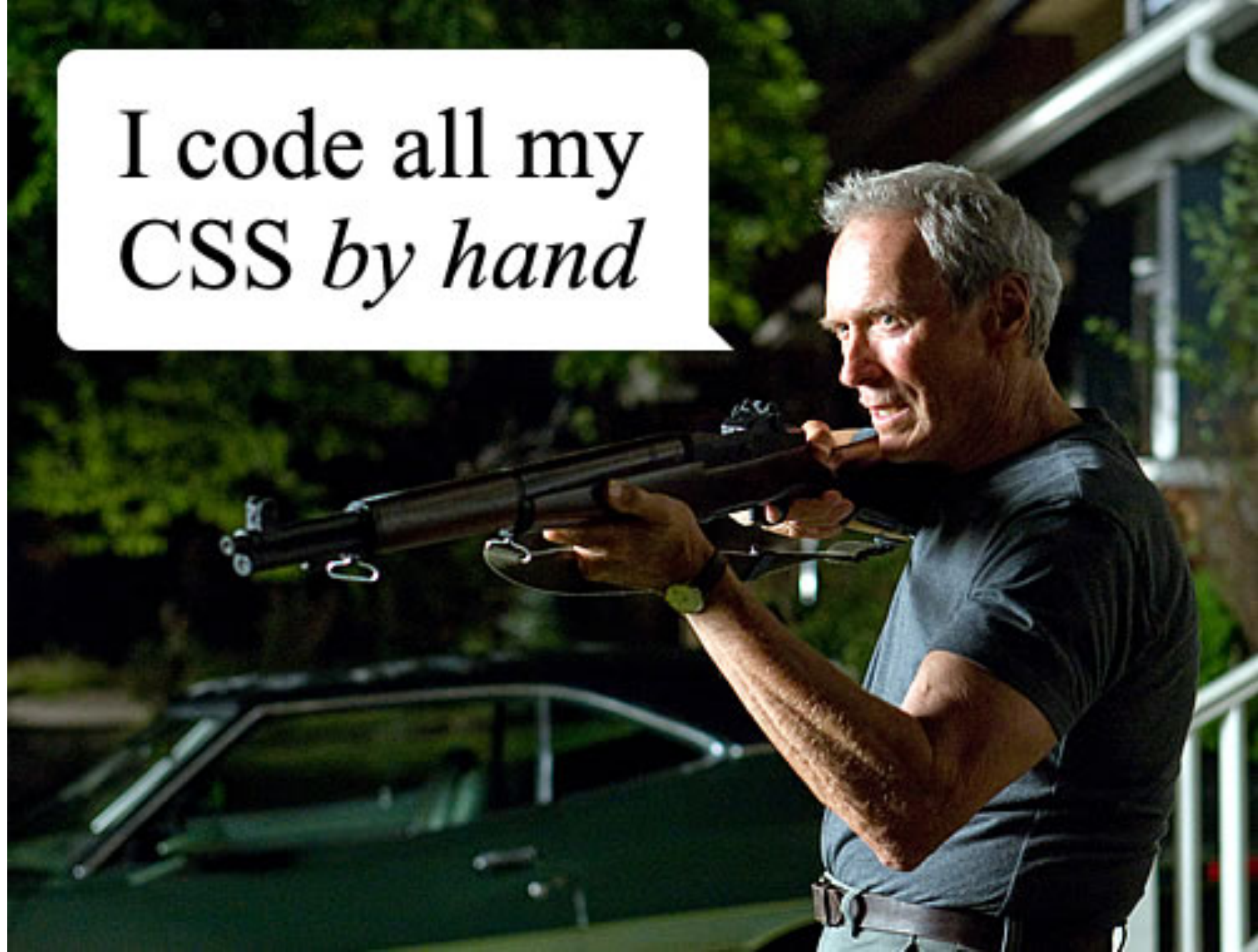


# Templates, Libraries, Frameworks

# Libraries, Templates, Frameworks

- Why use?
  - Common structures – don't have to re-do – don't *reinvent the wheel*
- Templates
  - Single file - for web, usually HTML
  - Ready-made structures
  - e.g. HTML5 Boilerplate
- Libraries
  - Single file; for web usually JavaScript; e.g. jQuery
  - Ready-made solutions – methods and functions
  - e.g. jQuery
- Frameworks
  - Combination of HTML, CSS, and JavaScript; sometimes contains other libraries and templates
  - Packages –ready for use and customization
  - Front-end (mostly CSS and/or JS to control CSS) and backend or application focused
- Why *not* use?

I code all my  
CSS *by hand*



# Advantages and Disadvantages

## Advantages

- Speeds the mock-up process
- Clean and tidy code
- Solutions to common CSS problems
- Browser compatibility
- Learn good practices
- Having a single procedure to resolve common problems makes maintaining various projects more straightforward.
- Helpful in collaborative work

## Disadvantages

- Unused code leftover
- Mixes content and presentation
- Slower learning curve
- You don't learn to do it yourself

### **When is it advisable to use a framework?**

When customizing the framework, at what point do you realize it would have been faster or easier to code it yourself from the ground-up?



Good-enough  
Websites

### WYSIWYG – Package Solutions

- Wix
- Squarespace
- Weebly
- Macaw
- Webflow
- ION Interactive
- Mail Chimp
- Constant Contact

Helps  
...a lot!

Still required

Professional, Custom  
Websites

### Templates, Libraries, Frameworks

- jQuery
- Bootstrap
- WordPress
- ...et cetera

CSC 174

Interaction Design Skills

DMS 104

Graphic/Visual Design Skills

Hand Coding Skills

CSC 170

# Frameworks

- Front-end
  - usually HTML, CSS and JavaScript
  - Grid solutions, CSS packages
  - Interesting example: [www.muicss.com](http://www.muicss.com)
- Back-end
  - For application developers to build apps (software for the web)

## PRESENTATION LAYER / FRONT-END

### User interfaces

Languages: HTML, CSS, Javascript...

Frameworks: Bootstrap, Foundation 3, Grids Systems...

## APPLICATION LAYER / BACK-END

### Logic and operation of the website

Languages: PHP, PYTHON, RUBY, JAVA...

Frameworks: Symfony, Django, Ruby On Rails, Spring...

...and react.js, angular.js, vue.js

(see: <https://existek.com/blog/top-front-end-frameworks-2019/>)