

# Internationalization (i18n)

Also Localization (l10n)

- swap out text
  - translate in context?
  - pluralization!
  - who translates? (automatic == poor)
  - number, currency, date, times
  - names
  - left-to-right vs right-to-left (vs vertical)
- browsers provide language preferences to server
- what about text from services?

# Accessibility (a11y)

Don't exclude people!

- Start with Semantic HTML
- Keyboard vs mouse vs touch
- colors vs shape & size
- text vs image
- screen size
- text size
- font legibility
- word choice
- shared computers
- other programs (PDF)

# Licensing

Berne Convention says:

- Most creative works are automatically protected

Most jurisdictions say:

- "derivative works" are protected

"no cost" != "can be used in a derivative work"

- GPL (v2 vs v3)
- open source vs free source vs freely available
- BSD, Apache, MIT, various Creative Commons

# Obfuscation

Obfuscation = hiding your code

Not very effective, never certain ...except at creating bugs and making debugging harder

All front-end code is fully exposed

# Optimization

School often talks about optimization and efficiency

In real world:

- yeah,  $O(n^2)$  is usually bad
- otherwise dev time is often in shorter supply
- "premature optimization is the root of all evil"
- Don't optimize until you have a problem
- Always benchmark before optimization changes

# Versioning

Semver is a great start, but...

- what about service APIs?
- what about dependencies changing?
- what about supporting outside code?
- what about being wrong about impact?
- how long do you support old versions?