Accessibility & Multi-Screen Design

Responsive & Accessible Future

Disclaimer

This course is not a W3C course.

Views expressed are my own.

Dies ist kein W3C-Kurs.

Alle Ansichten sind meine Eigenen.

Responsive Web Design

CSS Grids

Some great examples:

- [Web Design Experiments by Jen Simmons](#)

- [Jazz Poster | Jen Simmons](#)

- [Demo | Jen Simmons Labs](#)

- [Header, as many as will fit, footer](#)

- [Header, as many as will fit, some tall, footer](#)

Great Support

CSS Grid Layout (level 1) 📄 - CR

Method of using a grid concept to lay out content, providing a mechanism for authors to divide available space for layout into columns and rows using a set of predictable sizing behaviors. Includes support for all `grid-*` properties and the `fr` unit.

Usage	% of all users	?
Austria	89.64% + 3.14% = 92.77%	
unprefixed:	89.64%	
Germany	88.19% + 2.64% = 90.83%	
unprefixed:	88.19%	

show more...

Current aligned | Usage relative | Date relative | Apply filters | Show all | ?

IE	Edge	Firefox *	Chrome	Safari	iOS Safari *	Opera Mini *	Chrome for Android	UC Browser for Android	Samsung Internet
					11.2				
		60	73		11.4				
	17	66	74	12	12.1				
²11	18	67	75	12.1	12.2	all	75	11.8	9.2
	76	68	76	13	13				
		69	77	TP					
			78						

Notes | Known issues (3) | Resources (13) | Feedback

See also support for subgrids

² Partial support in IE refers to supporting an older version of the specification.

Grid "fallbacks" and overrides

by Rachel Andrew

@supports
Feature Queries

Grids allow for...

◉ reliable 2-dimensional layouts.

◉ mixing fixed-width elements with flexible ones (fr unit).

◉ redefining layout from the container – a more straight forward
   responsive workflow.

◉ layering items on the grid.

Subgrids

CSS Subgrid 📄 - WD

Feature of the CSS Grid Layout Module Level 2 that allows a grid-item with its own grid to align in one or both dimensions with its parent grid.

Usage % of all users

Austria	0%
Germany	0%
U.S.A.	0%
Global	0%

Current aligned | Usage relative | Date relative   Apply filters | Show all   ?

IE	Edge	Firefox *	Chrome	Safari	iOS Safari *	Opera Mini *	Chrome for Android	UC Browser for Android	Samsung Internet
					11.2				
		60	73		11.4				
	17	66	74	12	12.1				
11	18	67	75	12.1	12.2	all	75	11.8	9.2
	76	68	76	13	13				
		69	77	TP					
			78						

Notes | Known issues (0) | Resources (6) | Feedback

- Specification [w3.org] ref
- Firefox support bug [bugzilla.mozilla.org] —
- Chromium support bug [crbug.com] —
- Why we need CSS subgrid [dev.to] —
- CSS Grid Level 2: Here Comes Subgrid [smashingmagazine.com] info
- Firefox platform status: in-development [platform-status.mozilla.org] official status

How Subgrids Work

by Rachel Andrew

Progressive Web Apps

PWA

- Loads over HTTPS

- Use Service Workers to provide a offline access

- Prompt users to add to home screen

- Have mobile friendly layout

- Uses progressive enhancement

- Optimizes assets

- Provide enhanced a11y features

Service Worker

Basically a small proxy that handles URL requests and can act on them, for example serve a fallback page and caching assets.

Accessibility

The Accessible Smart Home

◉ Amazon Echo

◉ Google Home

◉ HomePod
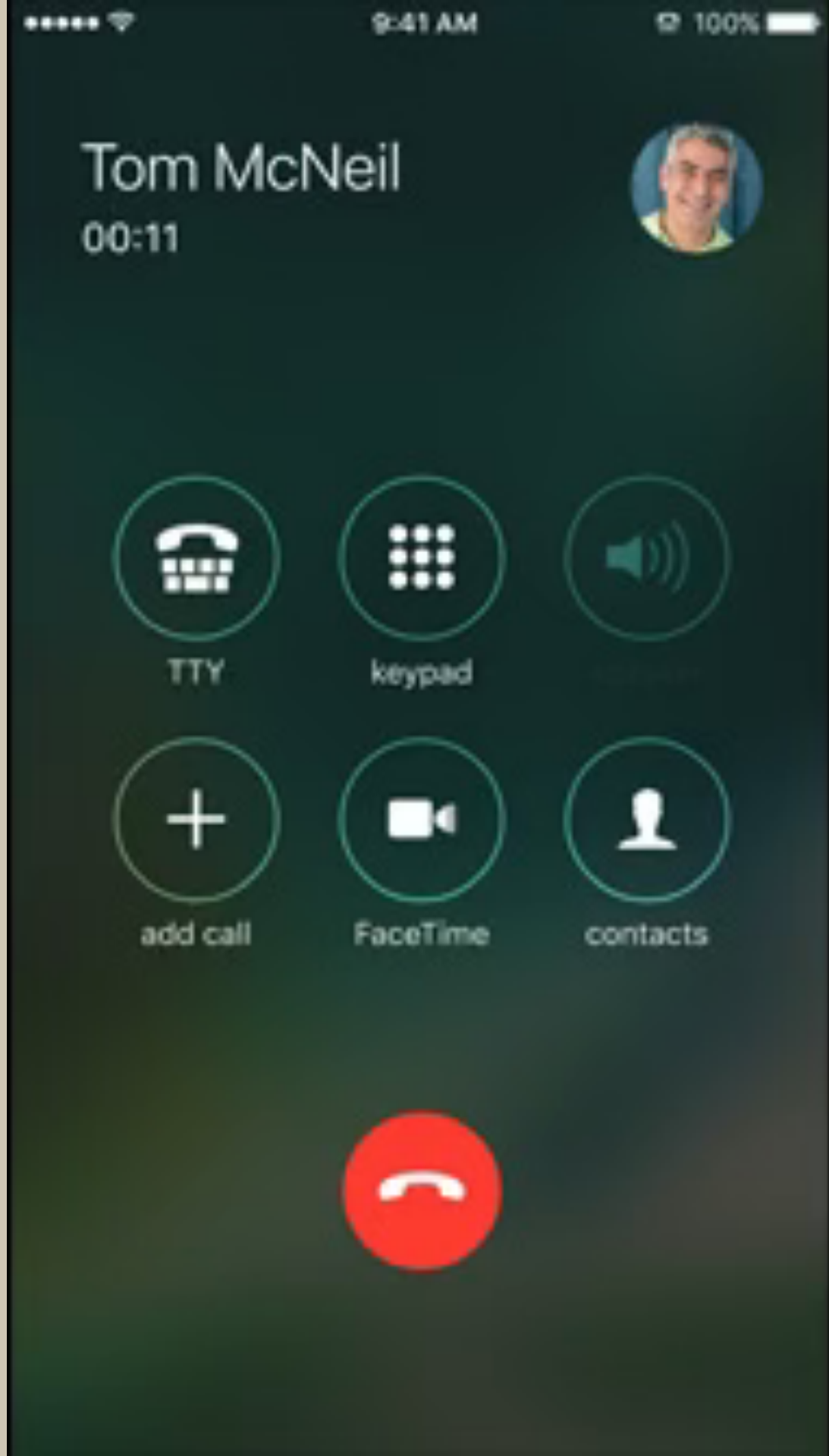
◉ Nest Thermostats

◉ ...

Smart Home Accessibility

◉ Voice Input

◉ Non-Voice Input

◉ Accessible configuration

Video Calls

Face Time, Google Duo, ...

Software TTY
Teletypewriter

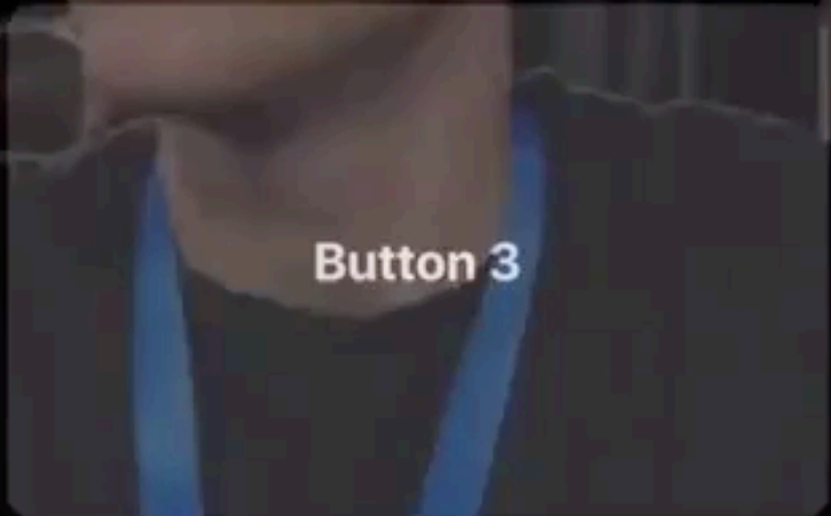# Augmented Reality

Color detection, shapes/faces detection

Wearables

Watches, Glasses

Apple Watch: Visual

◉ VoiceOver

◉ Zoom

◉ Font Adjustment

◉ Grayscale

◉ Extra Large Watch Face

Apple Watch: Hearing

◉ Taptic Feedback

◉ Scribble

◉ Mono Audio

Apple Watch: Physical/Motor

Social Media Accessibility

Captions

On YouTube, Facebook

Automatic Captions

On <u>YouTube</u>, usually insufficient, but a good start

Alternative Text

On [Twitter](#)

Automatic alternative Text

On [Facebook](#)

The End.