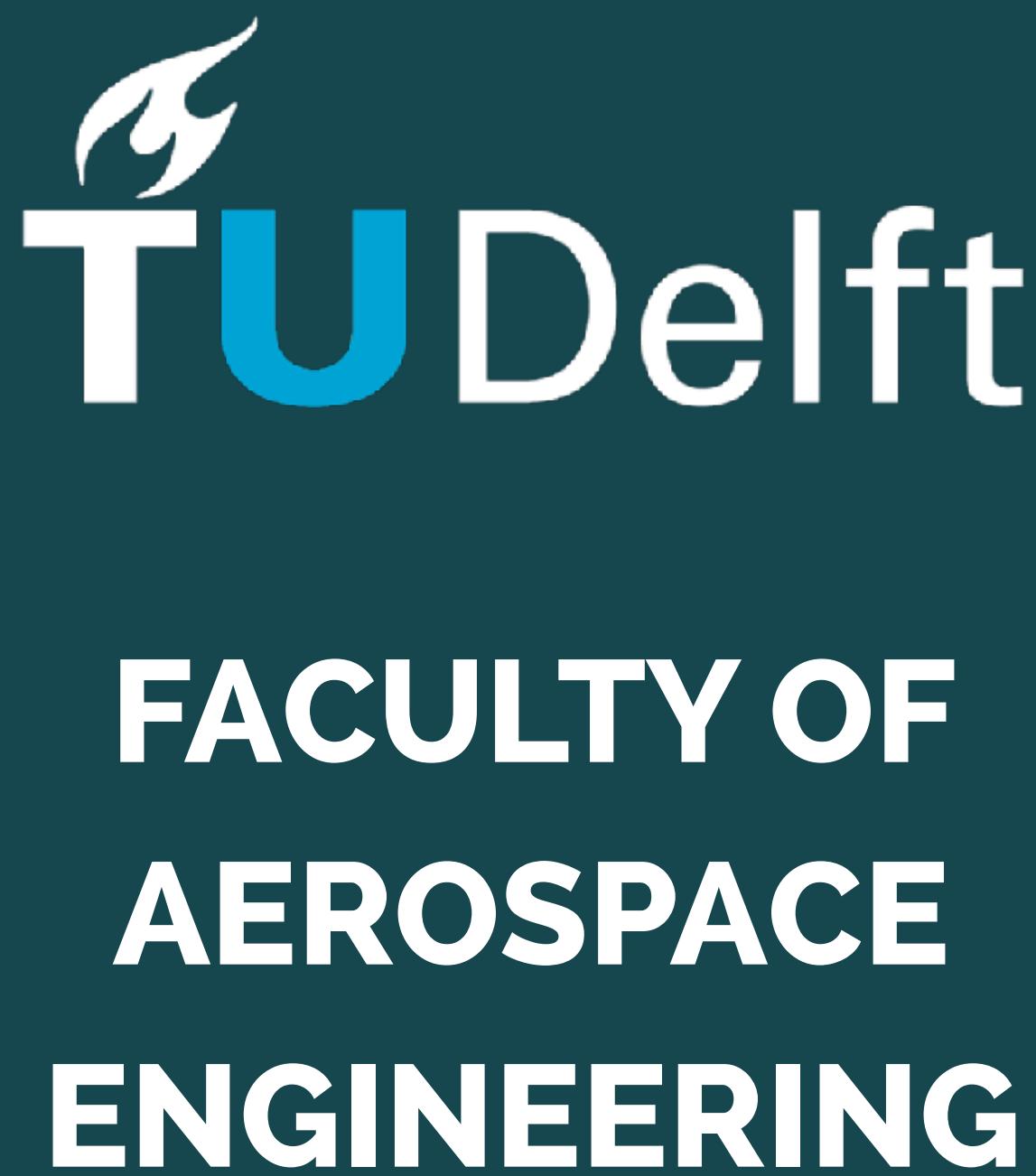




# FACULTY OF FRONT-END

@jbmoelker

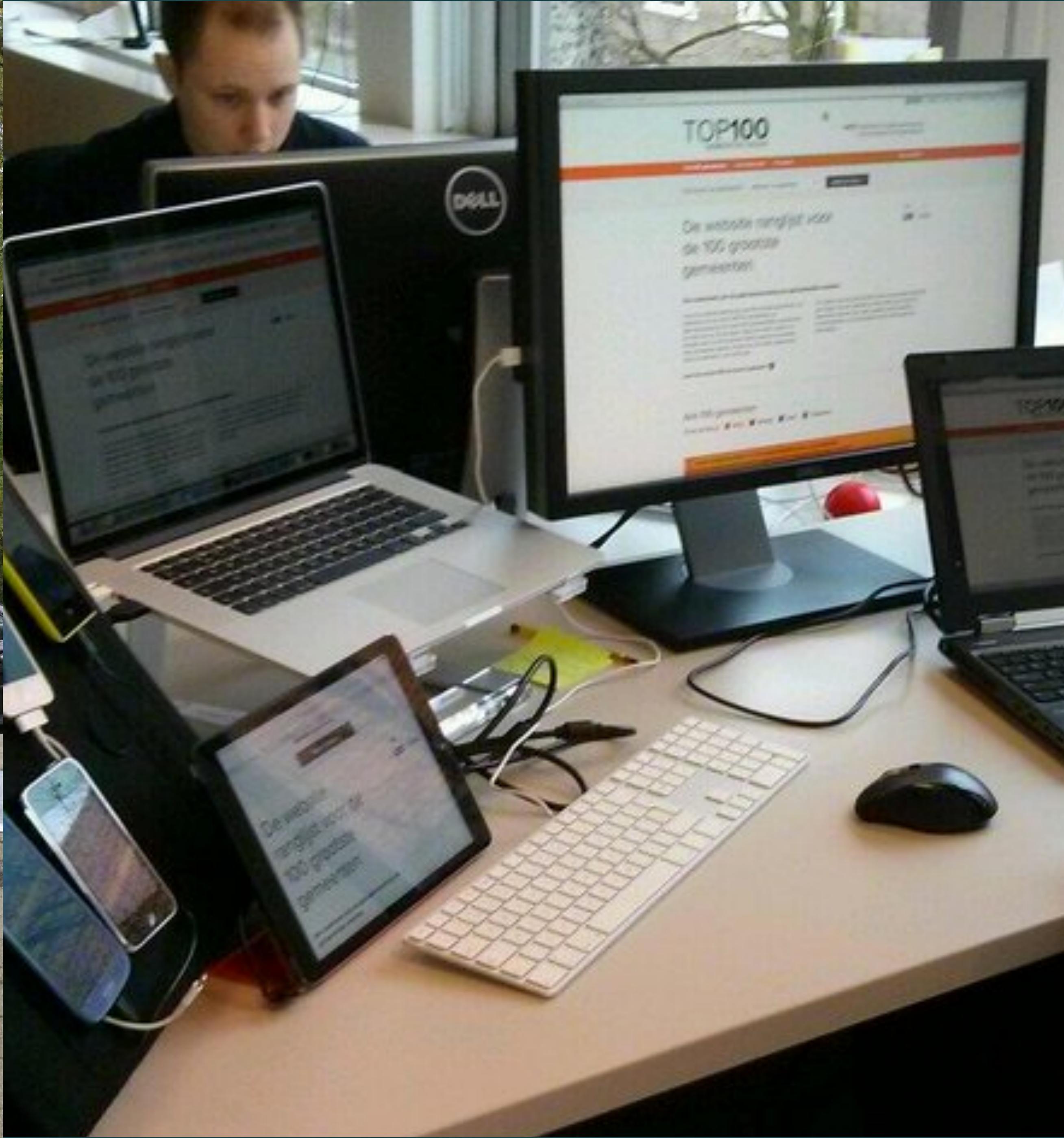








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Native Behaviors
LOCAL NOTIFICATIONS ✓
PUSH MESSAGES ✓
FOREGROUND DETECTION ✓
PERMISSIONS ✓

Seamless Experience
OFFLINE MODE ✓
HOME SCREEN INSTALLATION
BACKGROUND SYNC ✓
INTER-APP COMMUNICATION ✓

Camera & Microphone
AUDIO & VIDEO CAPTURE ✓
ADVANCED CAMERA CONTROLS ✓
RECORDING MEDIA ✓
REAL-TIME COMMUNICATION ✓

Location & Position
GEOLOCATION ✓
GEOFENCING ✗
DEVICE ORIENTATION ✓
DEVICE MOTIONS ✓

Input
TOUCH GESTURES ✓
SPEECH RECOGNITION ✓
CLIPBOARD (COPY & PASTE) ✓
POINTING DEVICE ADAPTATION ✓

Surroundings
BLUETOOTH ✓
NFC ✗
PROXIMITY SENSORS ✗
AMBIENT LIGHT ✗

Device Features
NETWORK TYPE & SPEED ✓
ONLINE STATE ✓
VIBRATION ✓
BATTERY STATUS ✓

Screen & Output
FULLSCREEN ✓
SCREEN ORIENTATION & LOCK ✓
WAKE LOCK ✗
PRESENTATION FEATURES ✓



## What Web Can Do Today

Can I rely on the Web Platform features to build my app?  
An overview of the device integration HTML5 APIs

✓ Feature available in your current browser

✗ Feature not available in your current browser

Operating System
OFFLINE STORAGE ✓
FILE ACCESS ✓
CONTACTS ✗
STORAGE QUOTAS ✓

# WEB TECHNOLOGY

The Web platform: Browser technologies

**Core platform**

- HTML
- DOM
- ECMAScript
- URL
- Fetch (includes CORS)
- XMLHttpRequest
- Encoding

**CSS features**

- CSS roadmap
- Animations
- Background-image options
- Border images
- Border radius (rounded corners)
- Box shadows
- Box sizing
- Cascading and inheritance
- Colors
- Compositing and Blending
- Device Adaptation
- Downloadable fonts (@font-face)
- Exclusions
- Feature queries (@supports)
- Filter Effects
- Fixed positioning (position:fixed)
- Flexible box layout (Flexbox)
- Font-feature settings
- Font loading
- Gradients
- Grid layout
- Hyphenation
- Image Values and Replaced Content
- Logical properties
- Masking
- Media Queries
- Motion paths
- Multiple-column layout
- Multiple backgrounds
- Opacity
- Overflow
- Pointer events

**Graphics and typography**

- Canvas
- WebGL
- SVG
- WOFF
- MathML
- Web Animations

**Media**

- Web Audio API
- WebVTT
- Media Source Extensions
- Media Fragments

**Platform interaction, events, messaging**

- Notifications API
- Cross-document messaging
- Channel messaging
- Fullscreen API
- Geofencing
- Geolocation
- Device Orientation
- Screen Orientation

**Pseudo-elements**

- Scroll Snap Points
- Selectors
- Shapes
- Sticky positioning (position:sticky)
- Style attributes
- Syntax
- Text decoration
- Text overflow
- Text shadows
- Transforms (2D)
- Transforms (3D)
- Transitions
- Values and Units
- Will Change
- Writing modes
- CSSOM (CSS Object Model)
- CSSOM View Module

**UI Events (formerly DCM Events)**

- Pointer Events
- Touch Events
- Pointer Lock
- Gamepad
- getUserMedia
- Battery Status
- Vibration
- Beacon
- HTML Media Capture (the capture attribute)
- Clipboard API and events

**Storage and Files**

- Storage (NavigatorStorage+StorageManager)
- Web Storage (localStorage)
- Indexed Database
- File API
- Blob URLs
- File Reader

**Real-time communication**

- WebRTC
- Object RTC (ORTC) API for WebRTC
- WebSocket protocol
- WebSocket API
- Server-Sent Events
- Push API

**Web Components**

- Custom Elements
- Shadow DOM
- Templates

**HTML bonus features**

- classList (DOMTokenList)
- dataset (data-\* attributes)
- async for scripts
- defer for scripts
- Session-history management
- hashchange
- Sandboxed Iframe
- Drag and drop
- contentEditable
- HTML Editing APIs

**ARIA**

**Performance optimization and analysis**

- Web Workers
- Shared Workers
- Timing control for script-based animations
- Navigation Timing
- Page Visibility
- User Timing
- Performance Timeline
- High Resolution Time
- SIMD (Single instruction, multiple data)

**Security and privacy**

- Content Security Policy (CSP)
- Upgrade Insecure Requests
- Web Cryptography API
- Referrer policy
- Tracking Preference Expression (DNT)

**Other core-platform bonus features**

- Structured cloning
- Transferable objects
- Mutation observers
- Streams
- DOM Parsing and Serialization
- DOM XPath
- Quirks Mode
- Internationalization API
- Promises
- JSON parsing
- Typed Array
- Service Workers
- querySelector() method
- matches() method
- matchMedia() method
- data URLs

**Various other**

- Web IDL
- Link header
- Content-Disposition header

A feature history of the modern Web Platform

## News

Sep 27, 2017

| New feature added: Media Fragments

Sep 23, 2017

| New feature added: Selection controls for input & textarea

Sep 21, 2017

| New feature added: WebUSB

Sep 14, 2017

| New feature added: Path2D

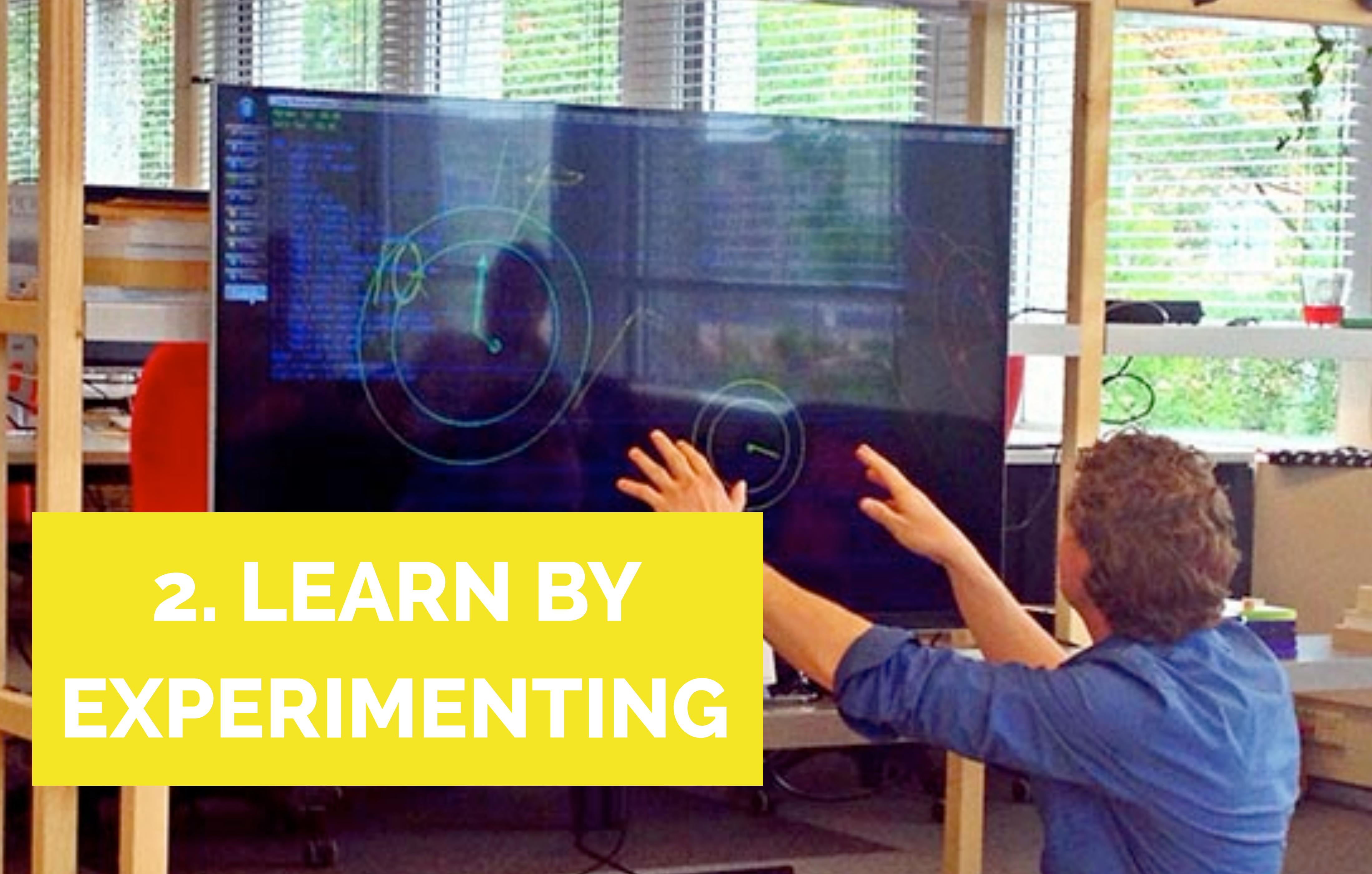
Sep 04, 2017

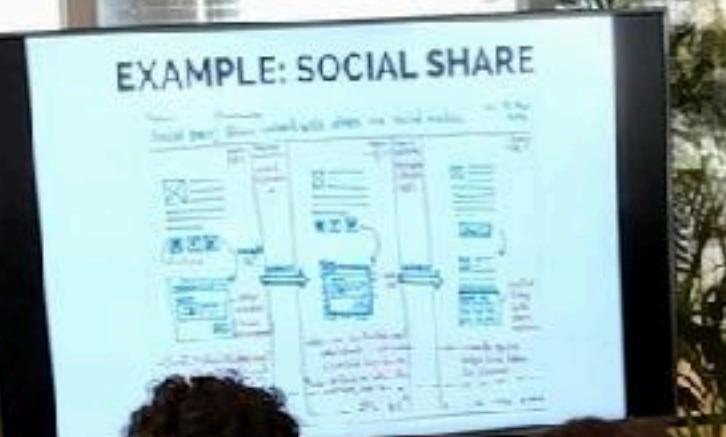
| New feature added: unhandledrejection/rejectionhandled events

A photograph of a theater interior. The audience is seated in rows of red theater seats, facing a stage that is mostly visible at the top edge. In the foreground, a man with short brown hair and a beard is smiling broadly at the camera. He is wearing a dark t-shirt and a lanyard with a blue ribbon that has the words "VOLUNTEERS FRONTLINE" printed on it twice. The lighting is dim, typical of a theater setting.

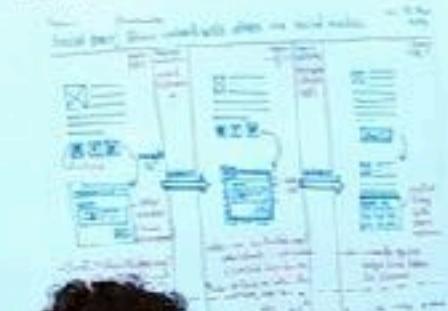
# 1. LEARN BY ATTENDING

## 2. LEARN BY EXPERIMENTING





### EXAMPLE: SOCIAL SHARE



# 3. LEARN BY SHARING



# 4. LEARN BY TEACHING



## Opgeven voor aankomende workshops

Bewaar formulier in IndexedDB en registrer BackgroundSync



# 5. LEARN BY PRESENTING



## Animate bottom bar



Fixing our PWA on iOS

@petergoes





**THANK  
YOU!**

**Jasper Moelker**  
**@jbmoelker**