Difficulties of current VR/AR approaches

1. Limited Functionality
2. No way to refer the real world
3. Separated rendering context
What we expect from Web VR/AR

1. Mashable
2. Dynamic
3. Responsive to the virtual and the real world
A Mobile AR Web Browser

http://www.insightar.org
Requirements and Opportunities for Standardization

1. Evolution of HTML for VR/AR
2. “Physical Things” as Resource
3. New Media Type for VR/AR
Webizing Augmented Reality Content

- **Physical Resource**
  - extends Web resources to the physical world
  - assigns URI for each physical object

- **CSS Place media**
  - extends CSS media module
  - renders a HTML document to a physical space in 3D

- **Place Object Model (Letsee JavaScript API)**
  - global JavaScript object for accessing the world model
  - Events for handling AR contexts in runtime
BP: Designer-driven AR applications

- 6 projects by undergraduate students
- The Letsee browser provided (6 teams)
- Led by designers in the entire development process
  - [https://youtu.be/Lpy3wx4-IEs](https://youtu.be/Lpy3wx4-IEs)

Other platforms

- Presentation (OpenGL)
- Application logic (Objective-C, Java, etc.)
- Target object model
- Tracking data
- Computer vision tracking engine
- Mobile OS

Letsee platform

- HTML
  - Presentation (CSS + WebGL)
  - Application logic (JavaScript)
- Real-world Abstraction
- Web browser
  - Hybrid tracking
Such as Title, Description,
MAR.IO Game Prototype (Mar 2013)  https://youtu.be/_E-hvF7JbH8

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We make all web information accessible in situ.

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