

The background image is a wide-angle aerial photograph of a modern city skyline during sunset or sunrise. The sky is filled with warm, golden light. In the center, there is a large, circular structure, possibly a bridge or a monument, surrounded by a ring of buildings. To its left is a very tall, thin skyscraper. The city extends into the distance, with more buildings visible under a hazy, orange-tinted sky.

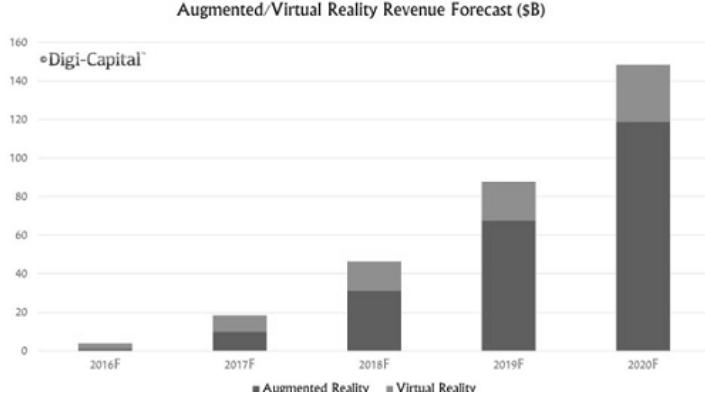
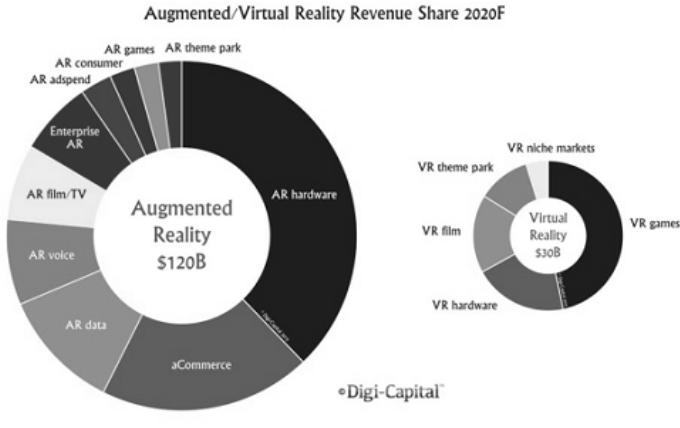
Developing for Virtual Reality using Javascript

DublinJS: Stephen Keegan 4/8/15

Overview

- Towards an Immersive Economy
- Enabling VR/AR Experiences
- Types of Immersive Experiences
- VR/AR Software Development
- Immersive Photograph Demo
- Questions

Towards An Immersive Economy



AR and VR spending to hit \$150 Billion by 2020

AR/VR Advertising spending to surpass \$10 Billion

AR and VR to disrupt mobile

Source: Digi-Capital, May 2015

LinkedIn interface showing a post titled "Could virtual reality become a mass media?" by Stephen Keegan.

Post Content:

Could virtual reality become a mass media? by Stephen Keegan

How Google Builds Bosses to Order by Dr. Travis Bradberry

Leadership Cycle: Is History destined to repeat itself? by Brigitte Hyacinth

Why You Should Work As Though Your Kids Are... by Sallie Krawcheck

We Need Clean Energy, Innovation, and Lots of It by Bill Gates

Why This Billionaire Signs All His Company's Checks by Betty Liu

The Greek Market Reopens and Crashes. And Other Mu... by Isabelle Routhol

Qualifications are Important – But Mojo is the Key to Your... by Liz Ryan

The Man Who Helped Me Become the Businessman I... by Mike Bloomberg

Cammakers Fret, Rajan Tackles Bad Loans And Oth... by Ramya Venugopal

Iran & Cuba: Open for

Stephen Keegan
CEO and Co-founder at Panokam.com

Dec 13, 2014 | 877 | 85 | 12 | LinkedIn Facebook Twitter

The potential of virtual reality is topical. The acquisition of VR startup Oculus Rift by Facebook earlier this year for \$2 billion has driven speculation on the possible impact of this technology. One question is pertinent: how likely is it that VR will become a mass media (rather than a niche form, restricted to gaming activities) alongside

Enabling VR/AR Experiences



Types of Immersive Experiences



Immersive Photograph

360 Degree Static Photorealistic Image

Can be augmented with audio

Example (Merrion Square, Winter)



Immersive Video

Dynamic Immersive Photorealistic Video

Real World Progressive Experience

Example (Hot-air Balloon Ride)



3D Graphical

Computer game style

3D models and environments

Example



Augmented Reality

Real-world environment supplemented by CGI

Possible to reuse assets from prior campaigns

Existing mainstream deployment (e.g. Ikea/Dulux)

Example

VR/AR Software Development



Steam® VR

oculus-SDK



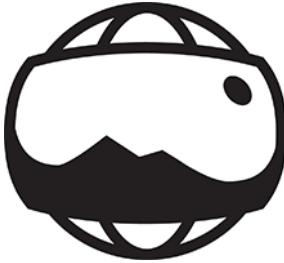
unity



ANDROID

iOS

Web v Native



Immersive Photograph

360 Degree Static Photorealistic Image

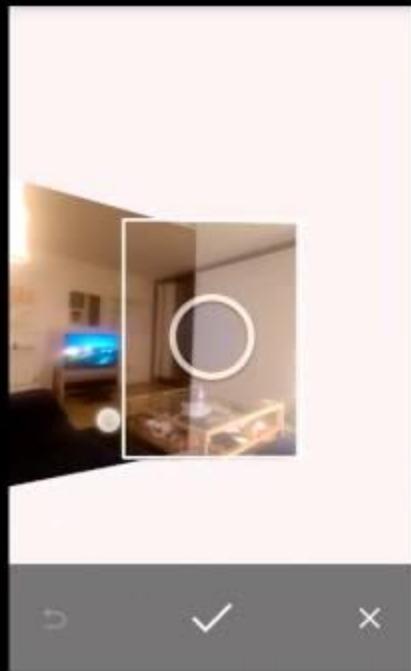
Can be augmented with audio

[Example](#) (Merrion Square, Winter)

Immersive Photograph Features

- Equirectangular Projection: ThreeJS
- Stereoscopic View: Three.js
- Sensory Detection: *Deviceorientation* Controls
- Optional: HTML5 audio, offline storage, etc...

Code



Enabling Immersive Experiences



Immersive Photograph

DONE



Immersive Video

<http://elevr.com/>

YouTube

Kolor Eyes



3D Graphical

ThreeJS and WebGL

Example



Augmented Reality

daqri.com

4D Studio

<https://github.com/jeromeetienne?tab=repositories>

Immersive Video



Example

Sphericam

Questions

@stephenkeegan

stephenkeegan@gmail.com

github: <https://github.com/skeegan/DublinJS>

npm link