



# Cross-Platform Augmented Reality

**TJ VanToll**

Principal Developer Advocate













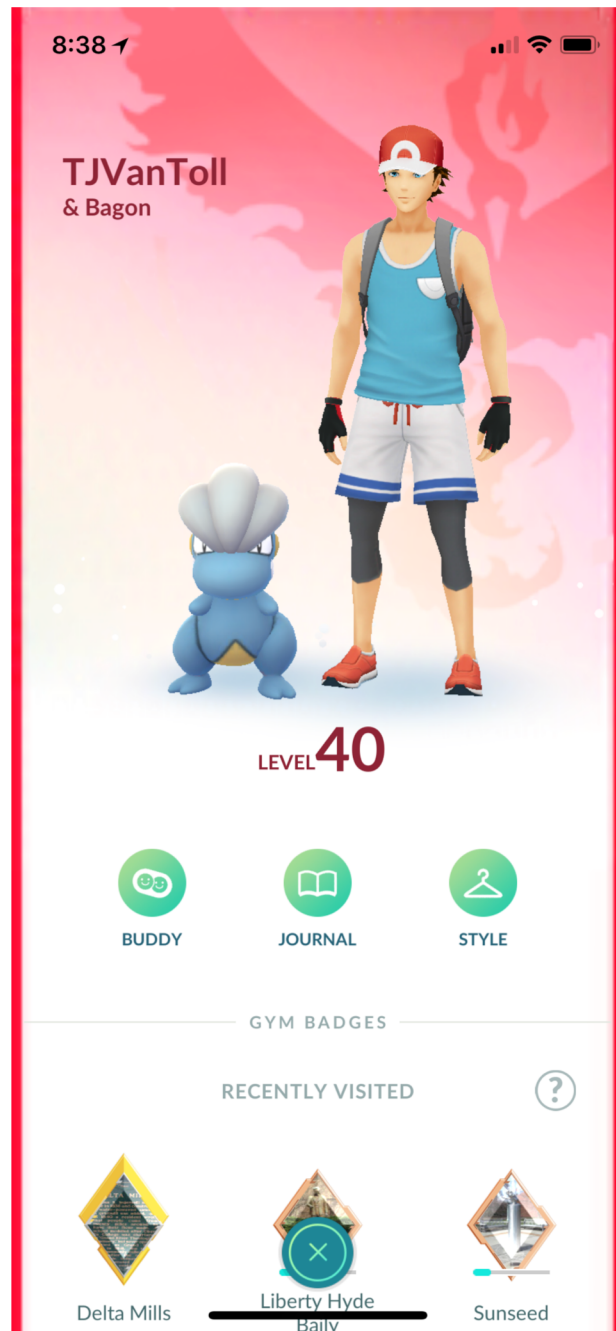
# Detroit Lions Become NFL's First 0-16 Team

Published December 28, 2008 • Associated Press





# Augmented Reality





***TJ VanToll*** ⚡

Principal Developer Advocate

**@tjvantoll**





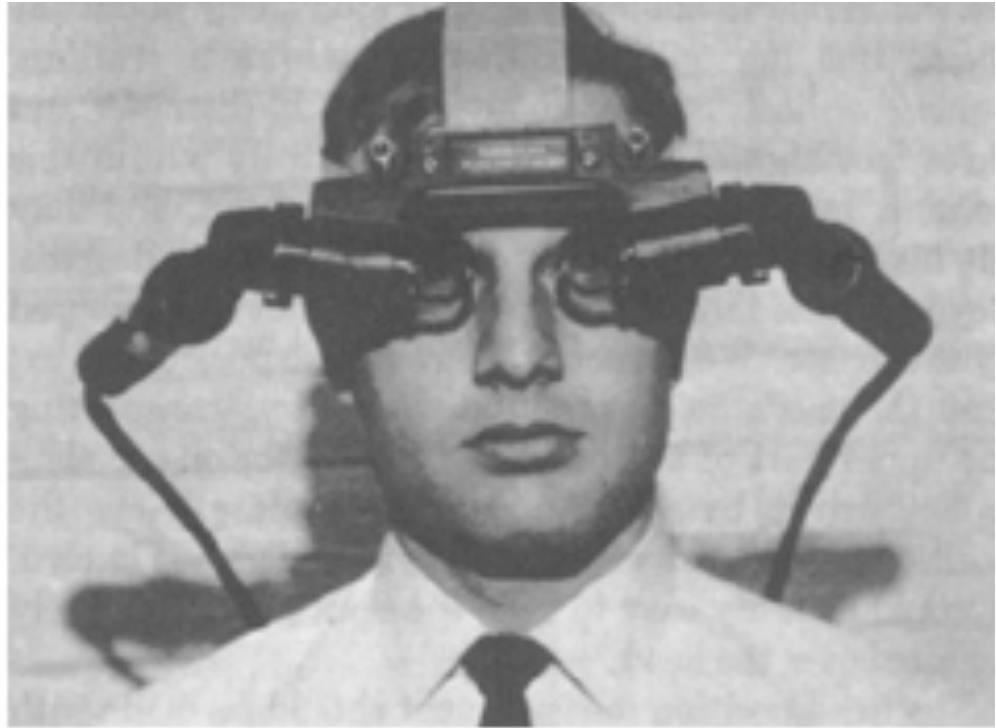
# Agenda

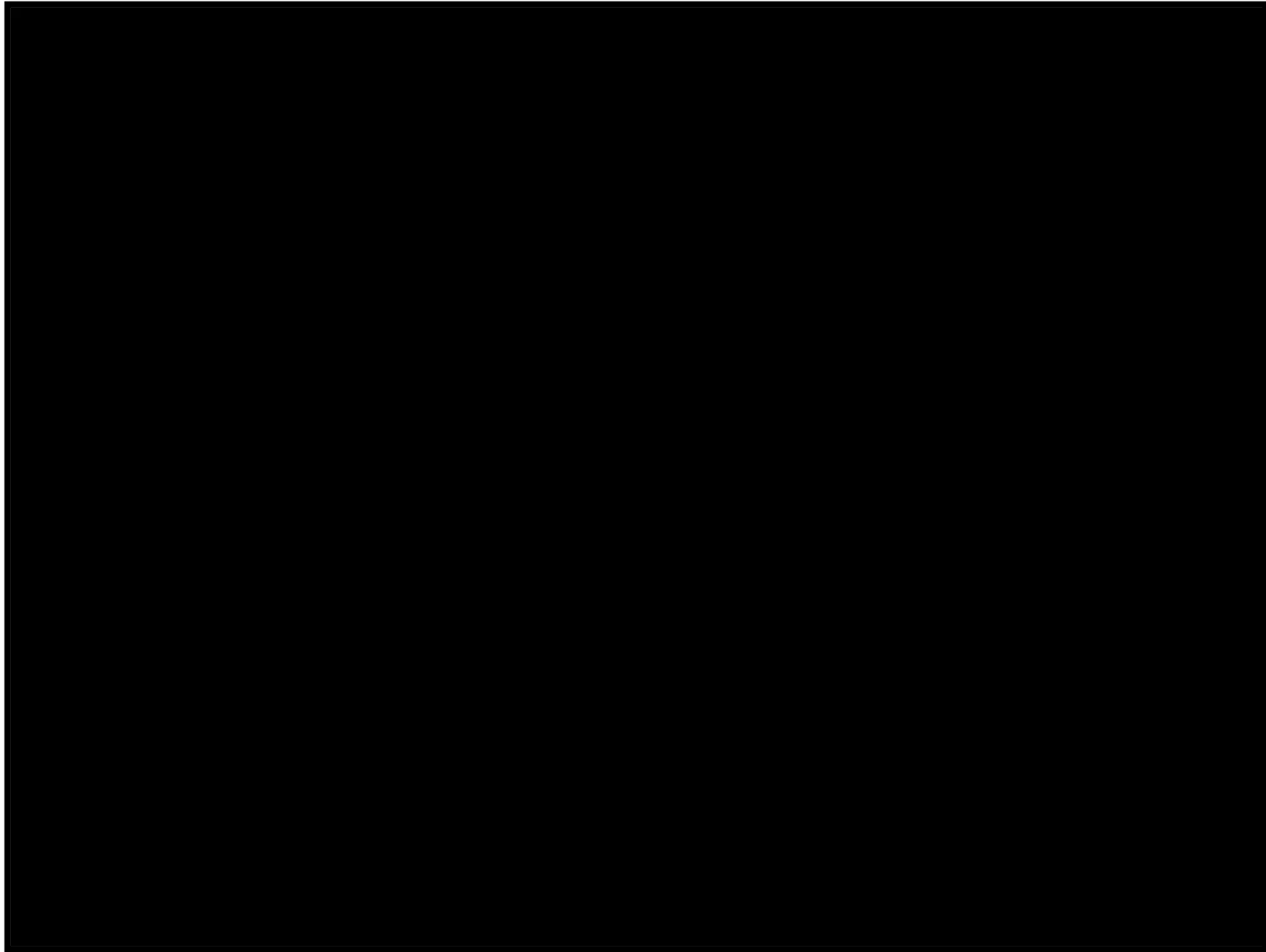
- Brief History of AR
- AR today
- Building cross-platform AR apps

**Augmented Reality (AR)** is the integration of digital information with the user's environment in real time.











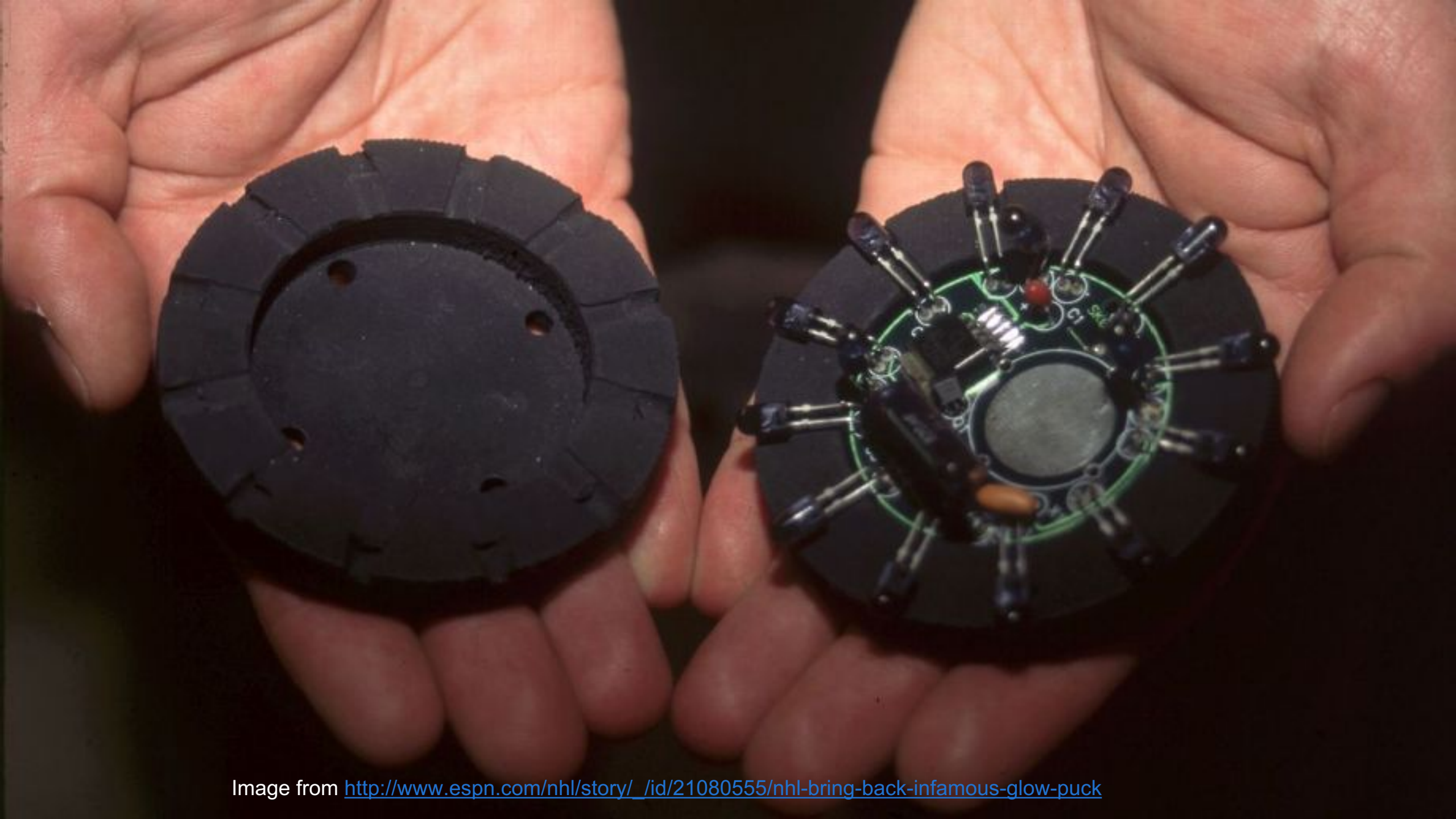


Image from [http://www.espn.com/nhl/story/\\_/id/21080555/nhl-bring-back-infamous-glow-puck](http://www.espn.com/nhl/story/_/id/21080555/nhl-bring-back-infamous-glow-puck)

FoxTrax glowing puck: Was it th X


www.slate.com/articles/sports/sports\_nut/2014/01/foxtrax\_glowing\_puck\_was\_it\_the\_worst\_blunder\_in\_tv\_sports\_history\_or\_was.html

# SLATE

## Lame Puck

Was Fox's glowing puck the worst blunder in TV sports history, or was it just ahead of its time?

By Aaron Gordon



It's alive!

The 1996 Fox Sports promotional video starts with a bunch of scientists straight from central casting, puttering with Erlenmeyer flasks that are bubbling over with smoking fluids. Then, there's a quick flash of a slap shot accompanied by a laser beam

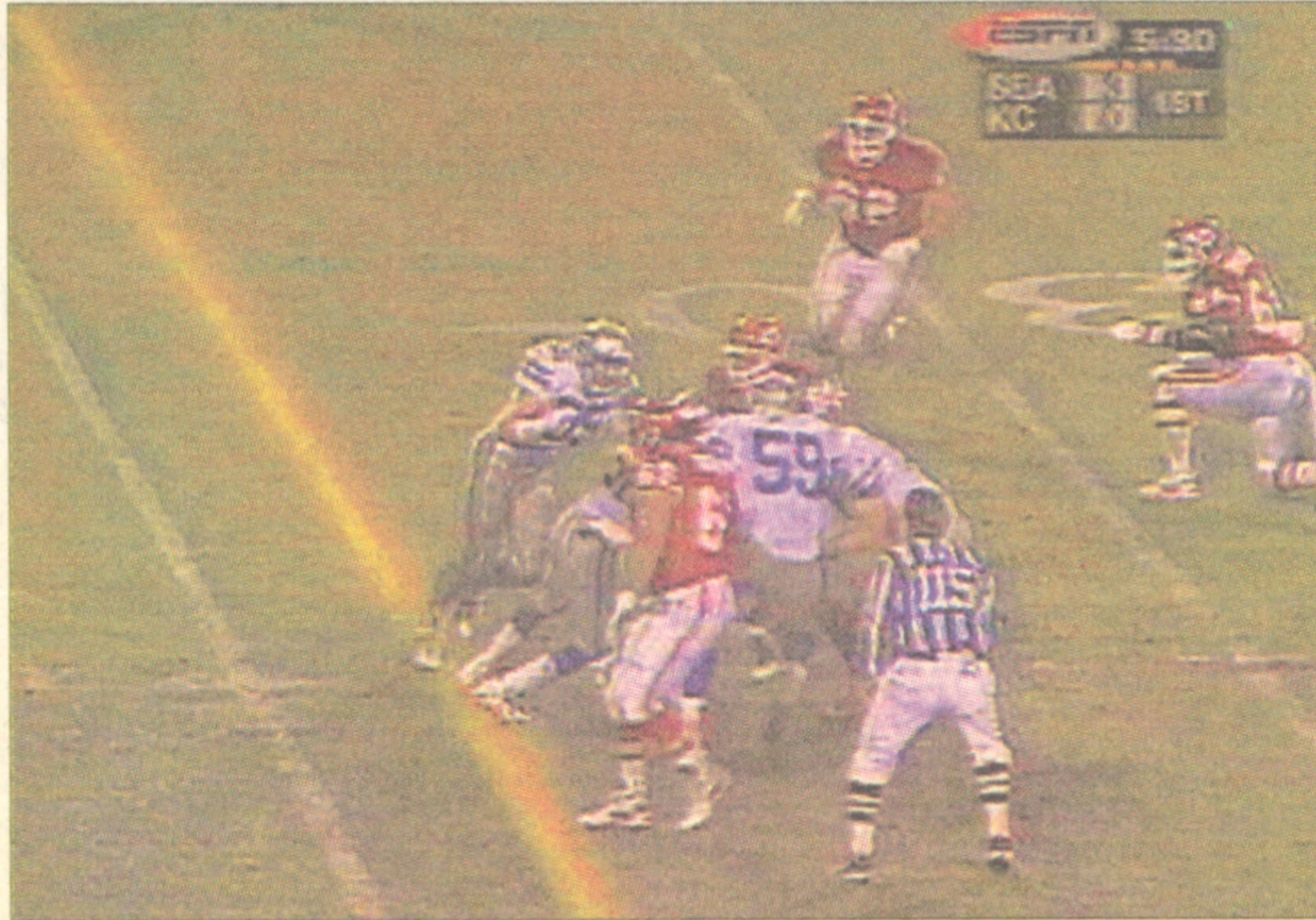
Source: [http://www.slate.com/articles/sports/sports\\_nut/2014/01/foxtrax\\_glowing\\_puck\\_was\\_it\\_the\\_worst\\_blunder\\_in\\_tv\\_sports\\_history\\_or\\_was.html](http://www.slate.com/articles/sports/sports_nut/2014/01/foxtrax_glowing_puck_was_it_the_worst_blunder_in_tv_sports_history_or_was.html)



# The thin yellow line

ESPN added a new feature in its football broadcasts this year. "1st and Ten" technology places a yellow line, visible only to TV viewers, that indicates where the first-down marker is.

**Story, D-4**



ESPN



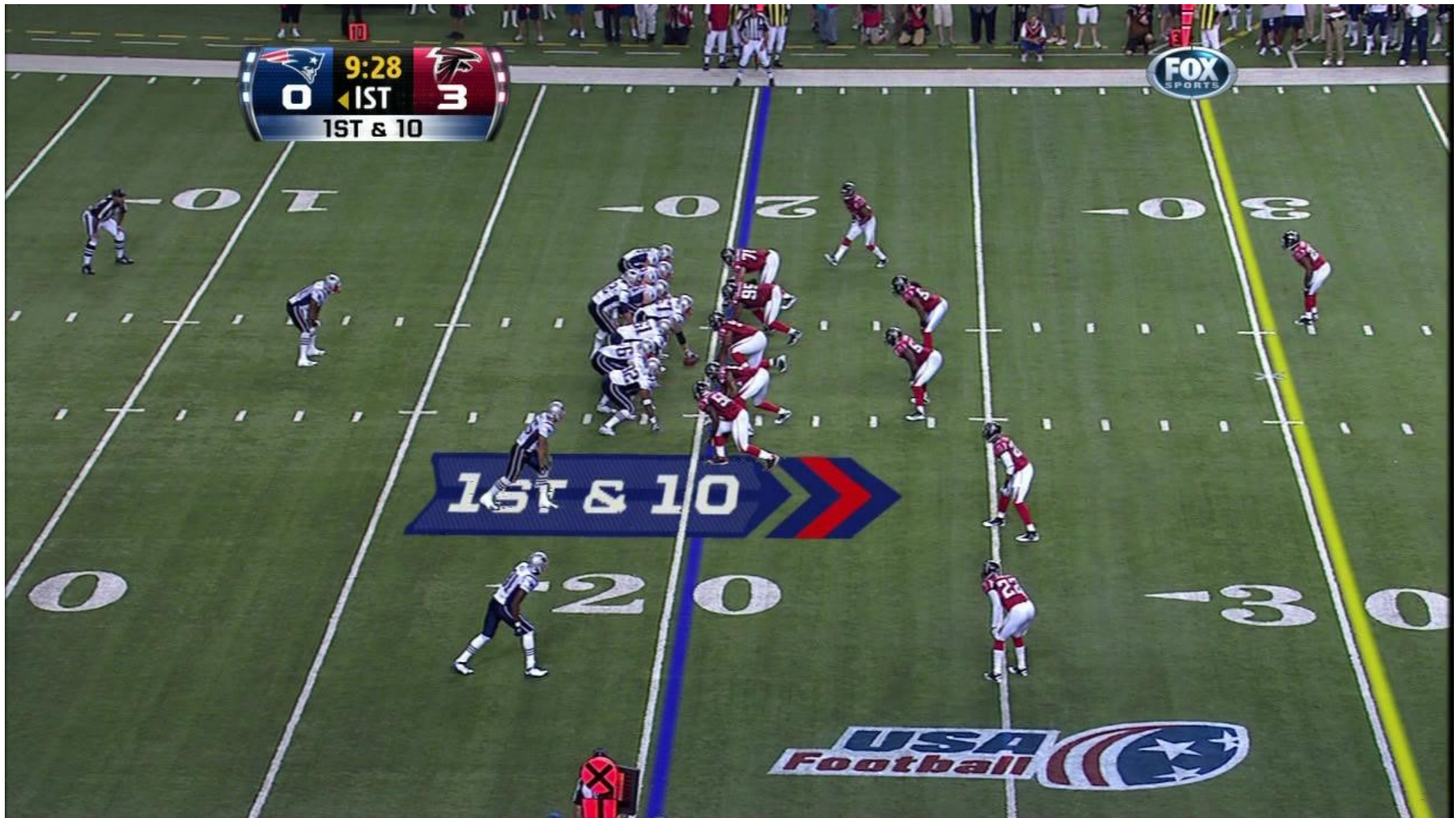


Image from <https://gobraithwaite.com/creative-marketing-saved-nfls-yellow-first-line/>

“It probably cost the broadcaster \$25,000-\$30,000 for a weekend back then.

We had to roll out an entire truck to make it work for games in the early days. It was five racks of equipment, a lot of engineers, a traveling circus.”

“Now it's basically one computer”





Source: <https://technabob.com/blog/2008/12/17/mini-augmented-reality-ads-hit-newstands/>







Source: <http://mashable.com/2012/04/04/google-glasses-project-glass/>

●

google glass

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Interest over time ?





# Google Glass available to everyone for \$1500

SARAH MISHKIN

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Sarah Mishkin

MAY 13, 2014

 21

Google's flagship wearable device—Google Glass—is now available for anyone in the US who wants to spend \$1,500 on the smart spectacles some find fascinating and others find bizarre.

In a post to the Google+ social network Tuesday afternoon, Google announced the new availability of the devices, which combine a set of spectacles with a small computer that sits just above the wearer's right eye.









# Magic Leap One™

## Creator Edition

We're adding another dimension to computing. Where digital respects the physical. And they work together to make life better. Magic Leap One is built for creators who want to change how we experience the world.



# Agenda

- ~~Brief history of AR~~
- AR today
- Building AR apps w/JS

Apple shows off breathtaking new augmented reality demos on iPhone 8

By Nick Statt | @nickstatt | Sep 12, 2017, 2:36pm EDT

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in LINKEDIN

Apple shows off breathtaking new augmented reality demos on iPhone 8

2:09 / 2:49

See Everything, Secure Everything

Prevent breaches, detect endpoint threats and stop malware.

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NOW TRENDING

Apple today showed off a handful of new augmented reality demos to show the efficacy of

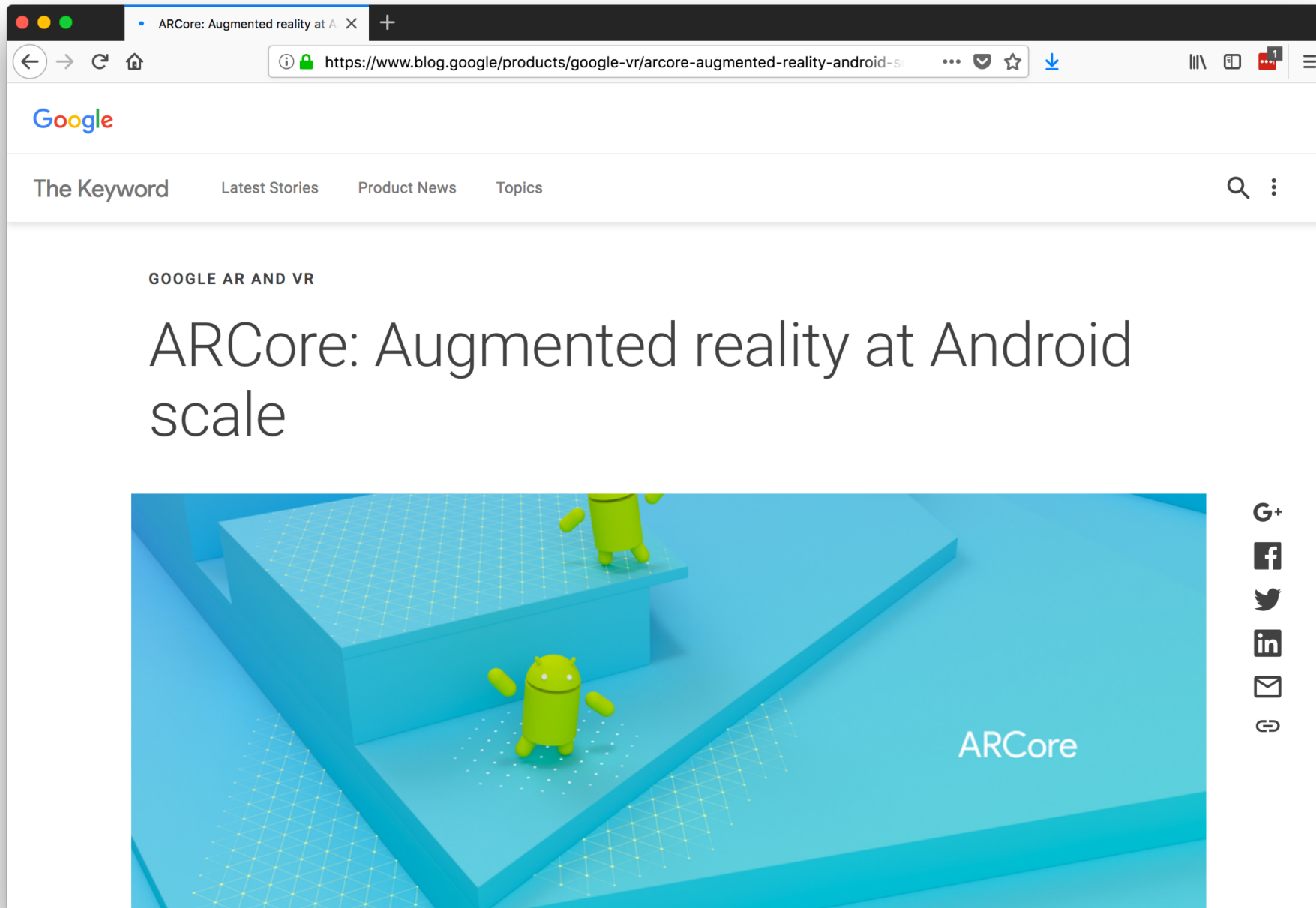
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2018



# Device Support

## ■ ARKit

- iPhone 6S+
- iPad Pros and Generation 5 regular iPads

## ■ ARCore

- Pixel, Pixel XL, Pixel 2, Pixel 2 XL
- Galaxy S8, S8+, Note8, S7 and S7 edge
- LGE's V30, V30+ (Android O only)
- ASUS Zenfone AR
- OnePlus's OnePlus 5



Google publicly launches ARCore

←

→

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https://techcrunch.com/2018/02/23/google-publicly-launches-ar

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# Google publicly launches ARCore 1.0 on 13 phones, will begin expanding Lens preview

Posted Feb 23, 2018 by [Lucas Matney \(@lucasmtny\)](#)

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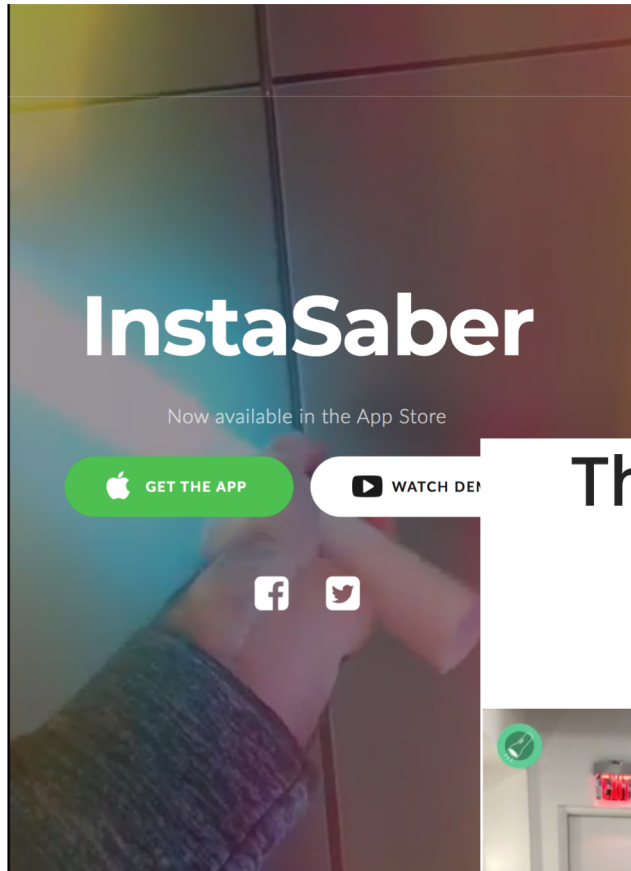
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Next Story



After playing around in the experimental phase, Google is bringing its ARCore augmented reality platform to its 1.0 release with availability on over 100 million Android devices.

Waiting for images.taboola.com...

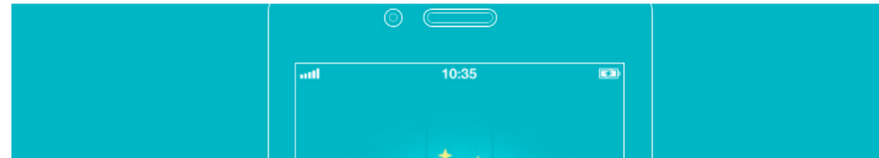


## This AR app solves Sudoku puzzles using your iPhone's camera

*Spoilers*

By [Thuy Ong](#) | [@ThuyOng](#) | Sep 21, 2017, 10:28am EDT

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## The AR Fart App We've All Been Waiting For

December 19, 2017 • by Jonathan Nafarrete

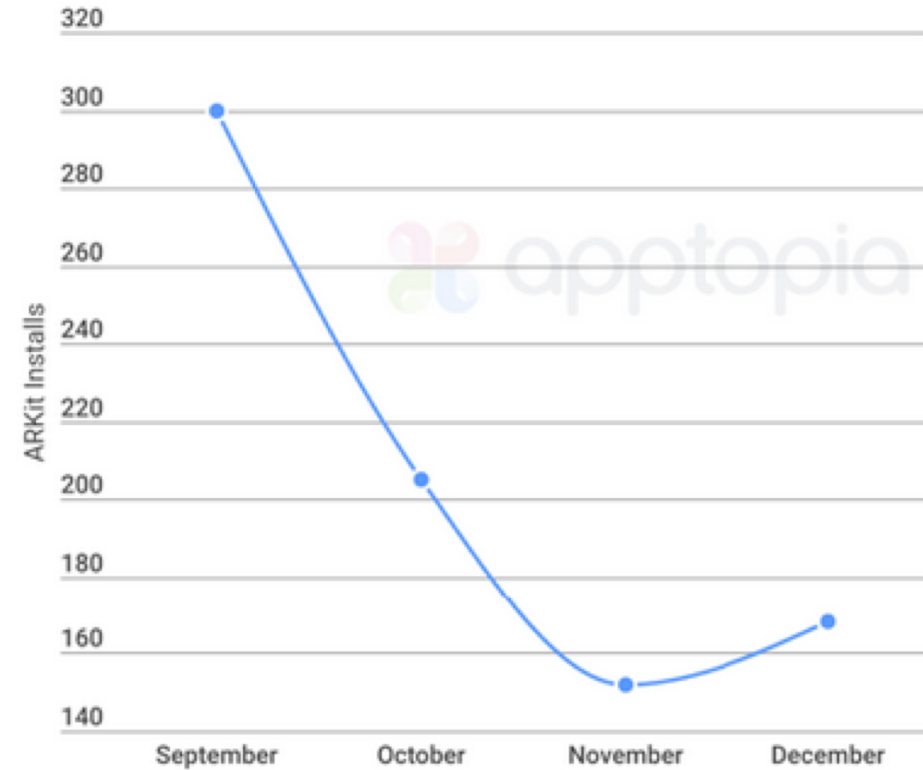
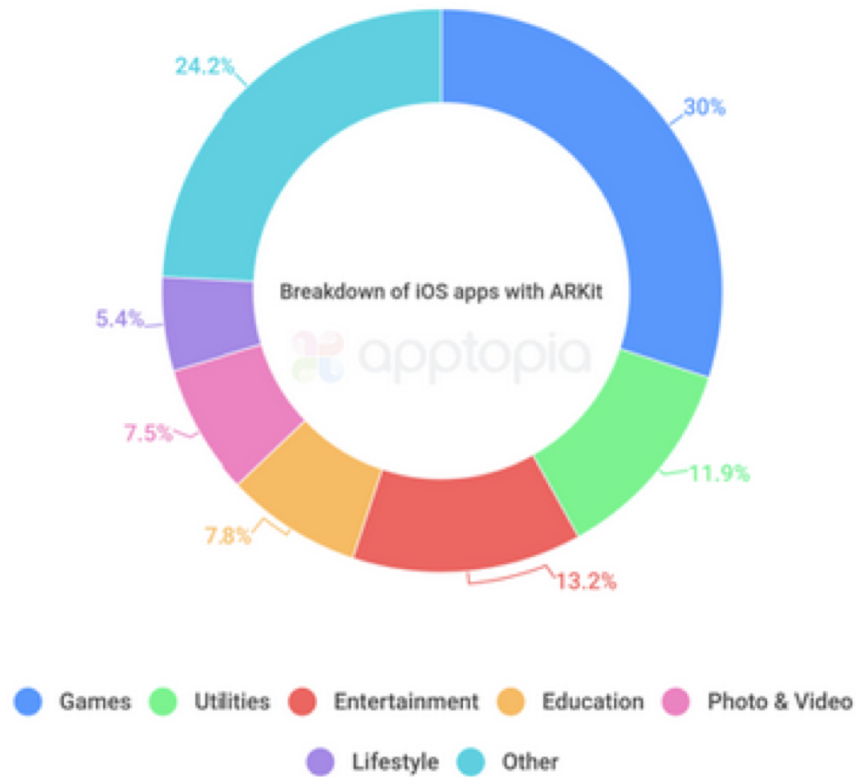
NOW TRE



# Report: Despite Apple's hype, early developer adoption of ARKit has been slow

Chance Miller - Jan. 3rd 2018 3:21 pm PT [@ChanceHMiller](#)





All in all, Apptopia estimates that there are under 1,000 applications currently in the App Store that take advantage of ARKit.

Source: <http://blog.apptopia.com/arkit-has-less-than-1000-installs>

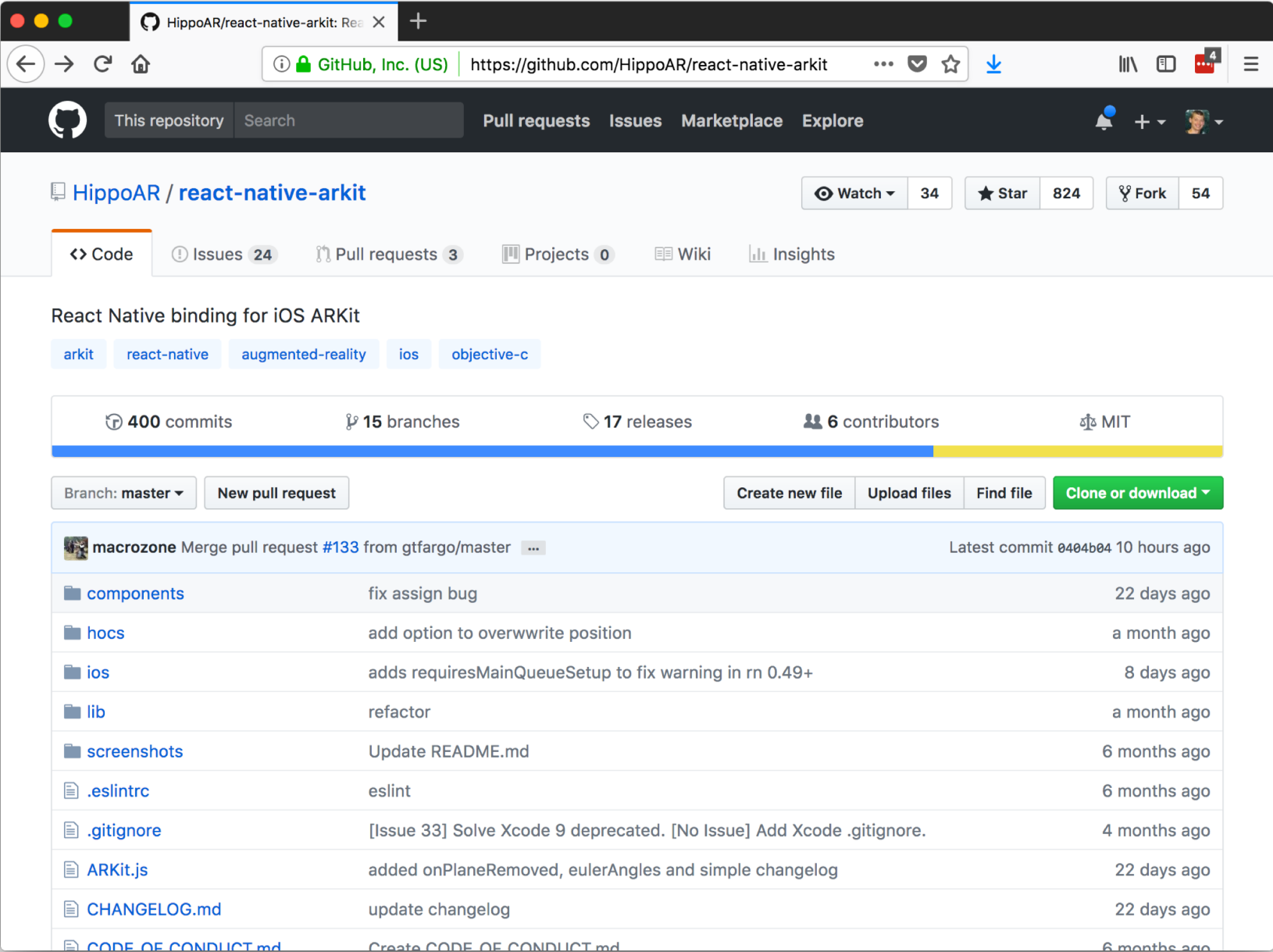
# Agenda

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- ~~■ AR today~~
- Building AR apps w/JS









EddyVerbruggen/nativescript-ar

GitHub, Inc. (US) | https://github.com/EddyVerbruggen/nativescript-ar

This repository Search Pull requests Issues Marketplace Explore

EddyVerbruggen / nativescript-ar Watch 5 Unstar 18 Fork 2

Code Issues 4 Pull requests 0 Projects 0 Wiki Insights

Augmented Reality NativeScript plugin <https://www.nativescript.org/blog/pre...>

nativescript nativescript-plugin augmented-reality

33 commits 1 branch 4 releases 1 contributor MIT

Branch: master New pull request Create new file Upload files Find file Clone or download

EddyVerbruggen Added repository Latest commit 4b73f5e 7 days ago

.github	Enjoy, world!	4 months ago
android-lib-src	Android library typings added	2 months ago
demo	Travis	16 days ago
docs	Allow undefined plane material #2	3 months ago
publish	Enjoy, world!	4 months ago
src	Added repository	7 days ago
.gitignore	Android support	3 months ago
.travis.yml	Travis	16 days ago
LICENSE	Bumped a few dependencies	28 days ago
README.md	Android support	3 months ago





**Demo!**

# Snapchat buys Israeli augmented reality start-up for \$40 million: Report

Arjun Kharpal | @ArjunKharpal  
Published 6:32 AM ET Tue, 27 Dec 2016



Snap Inc – the owner of Snapchat – has quietly acquired Israeli augmented reality (AR) start-up Cimage Media for a reported \$30 to \$40 million, according to a media report.

Cimage Media makes software that allows businesses or consumers to visualize what an item might look like in their environment. For example, the start-up works with Shop Direct to allow customers to see what furniture would look like in their home via a tablet.

This so-called augmented reality use is of interest to Snap Inc, considering Snapchat uses this technology in their lenses to let users turn their faces into animals for example.

# Snapchat buys Lookery, a 2-year-old startup that lets you Photoshop your face while you video chat

Alyson Shontell   
Sep. 15, 2015, 3:36 PM 19,111

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Snapchat has acquired facial recognition startup Lookery.

The deal was first flagged by Ain.ua, a Ukrainian publication, which states Snapchat purchased the startup for ~ \$150 million. Business Insider has



Lookery's app. Snapchat now offers that same selfie filter as a lens. Lookery

## Recommended For You

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# Google buys Word Lens, the app that translates languages with your phone's camera

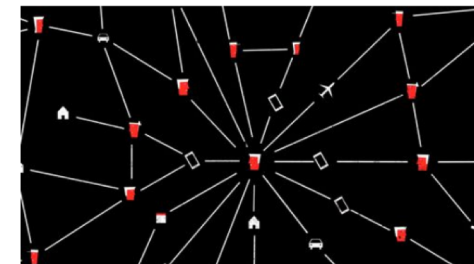
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By [Chris Welch](#) | [@chriswelch](#) | May 16, 2014, 2:50pm EDT

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NOW TRENDING





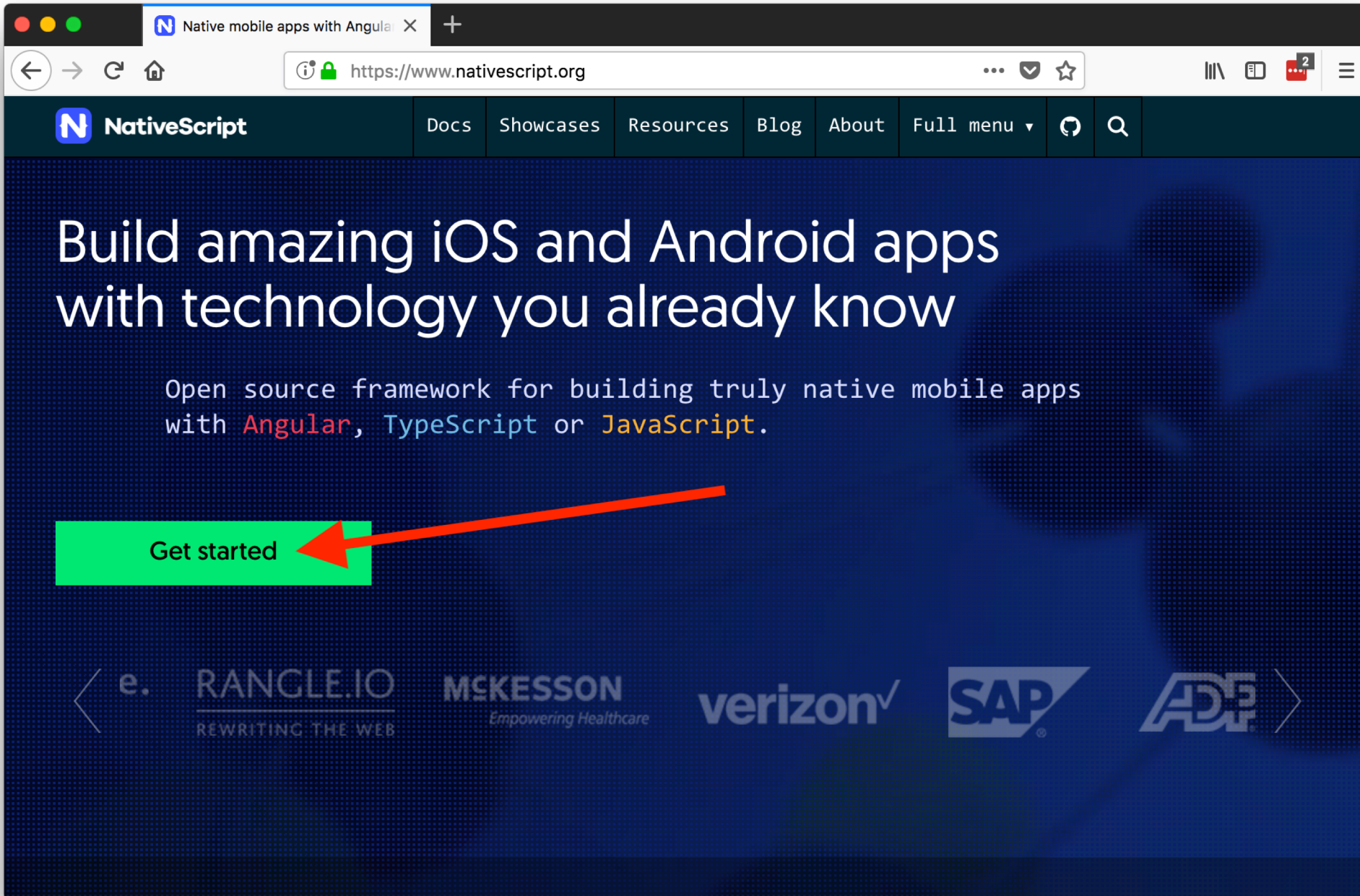
## NativeScript AR





# Summary

- AR is cool.
- AR is hard.
- It's probably a few years before AR is simple enough for your average developer to build something compelling with.



# Thank You!

**TJ VanToll**

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 [@tjvantoll](https://twitter.com/tjvantoll)