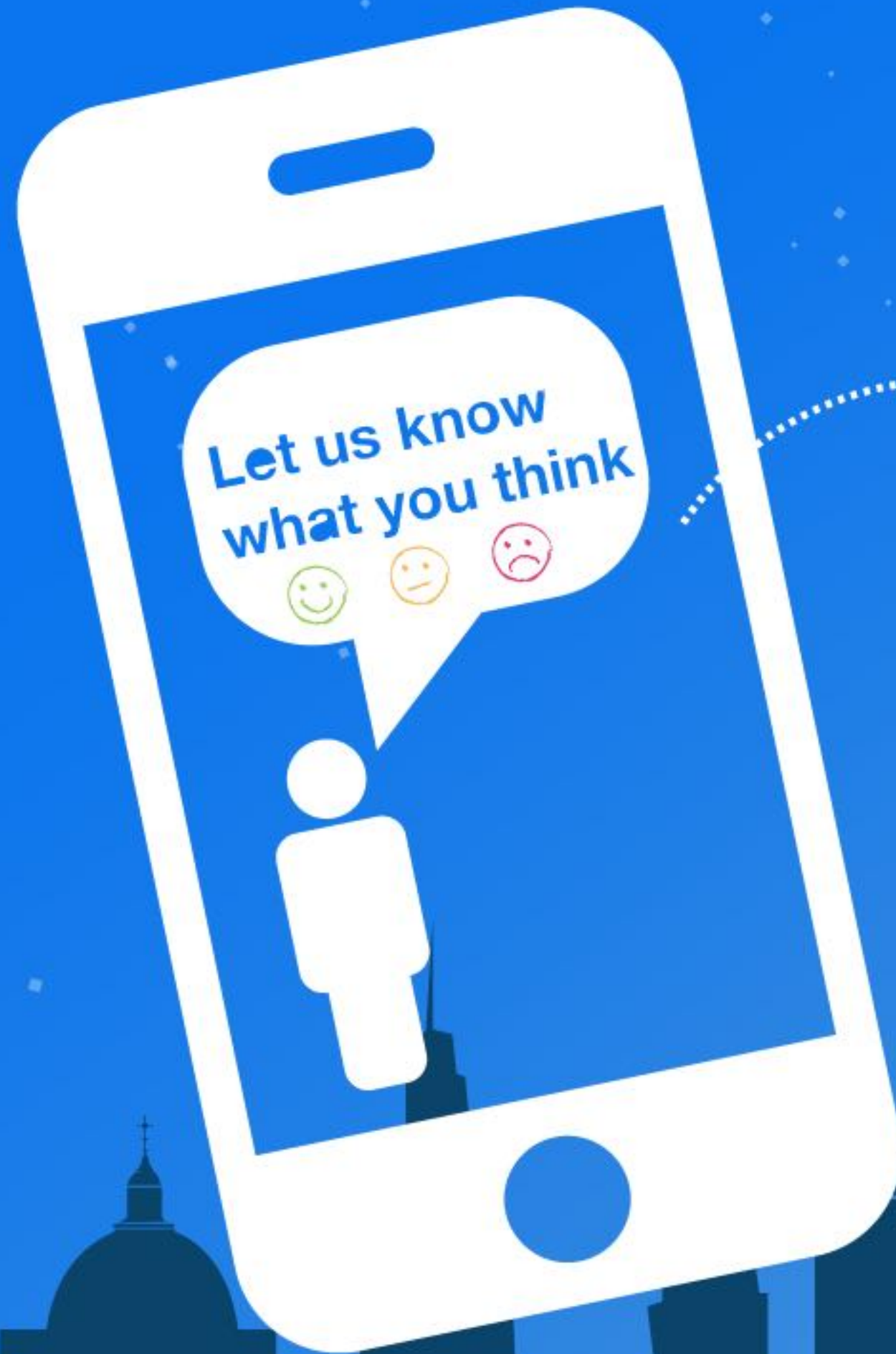


Balancing tech/content/location UX in Mixed Reality

Jason Yim





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to rate session
and ask questions.**



ABOUT ME

JASON@TRIGGERGLOBAL.COM

- NOT A TECH GUY
- Born in Singapore > Grew up in Hong Kong
- High school in Bay Area (Northern California) > UCLA Graphic Design Major
- Working with LEGO for 5 years > Lived in Jelling for 3 months in winter
- First AR project in 2009
- 3 patents in AR play





trigger™

THE MIXED REALITY AGENCY™





Showcase Developer



Showcase Developer



Showcase Developer



AVEGANT
Showcase Developer

Our Clients



Our Services



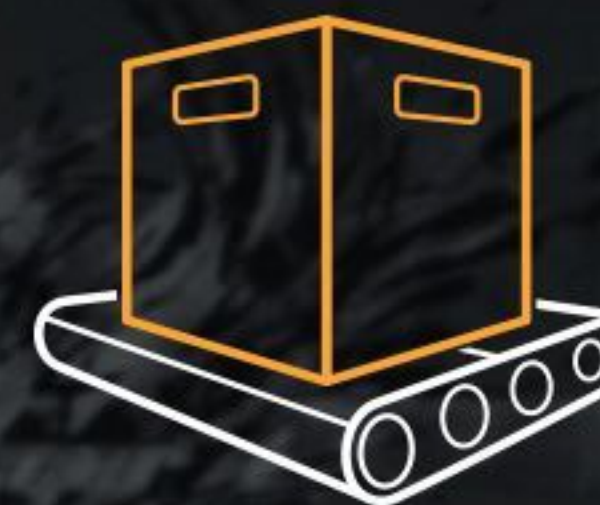
Marketing and Promotions



Product Development



Location-Based Experiences



Enterprise Solutions

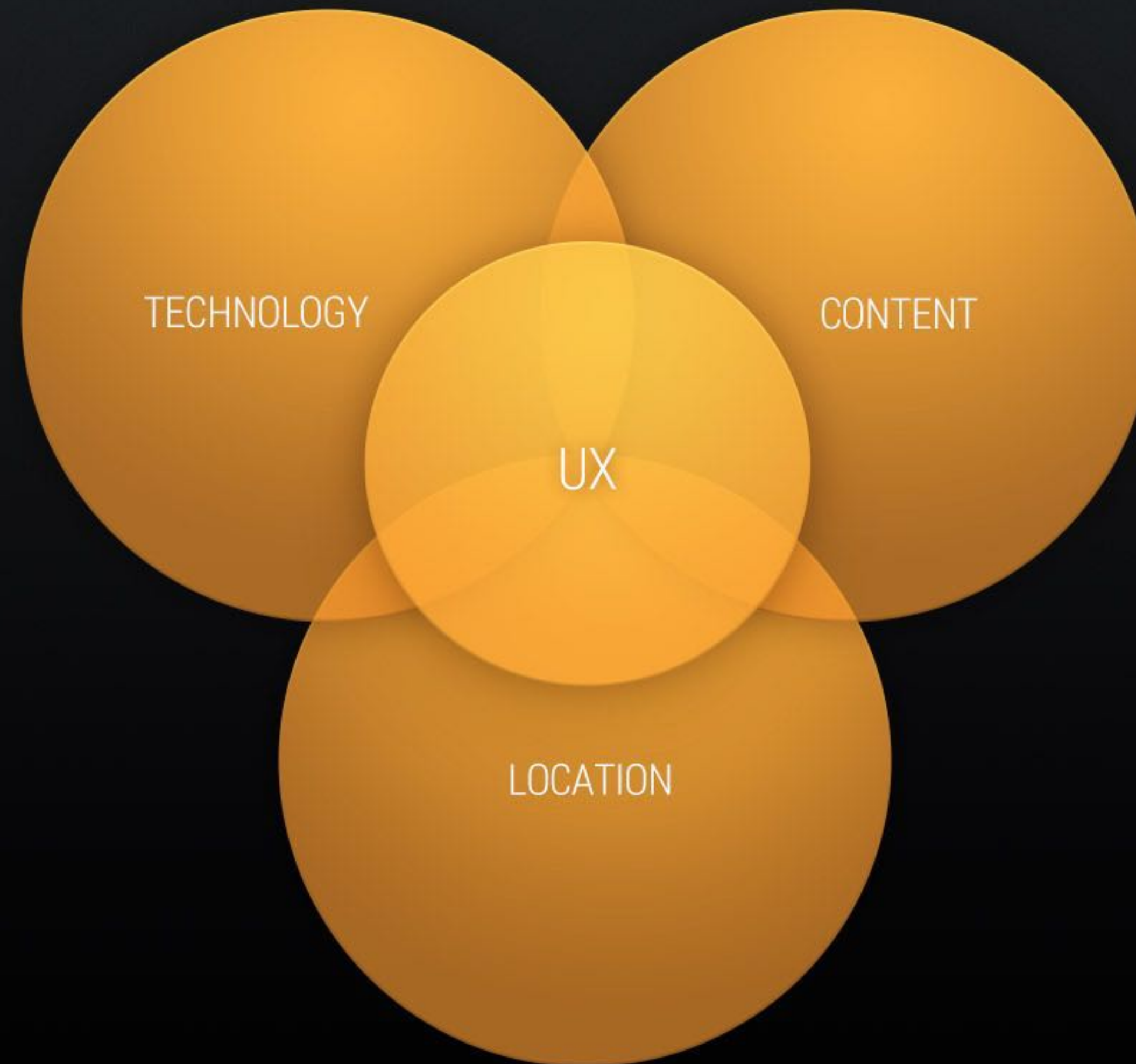
A dark, stylized image of a Los Angeles street scene with palm trees and buildings.

LOS ANGELES

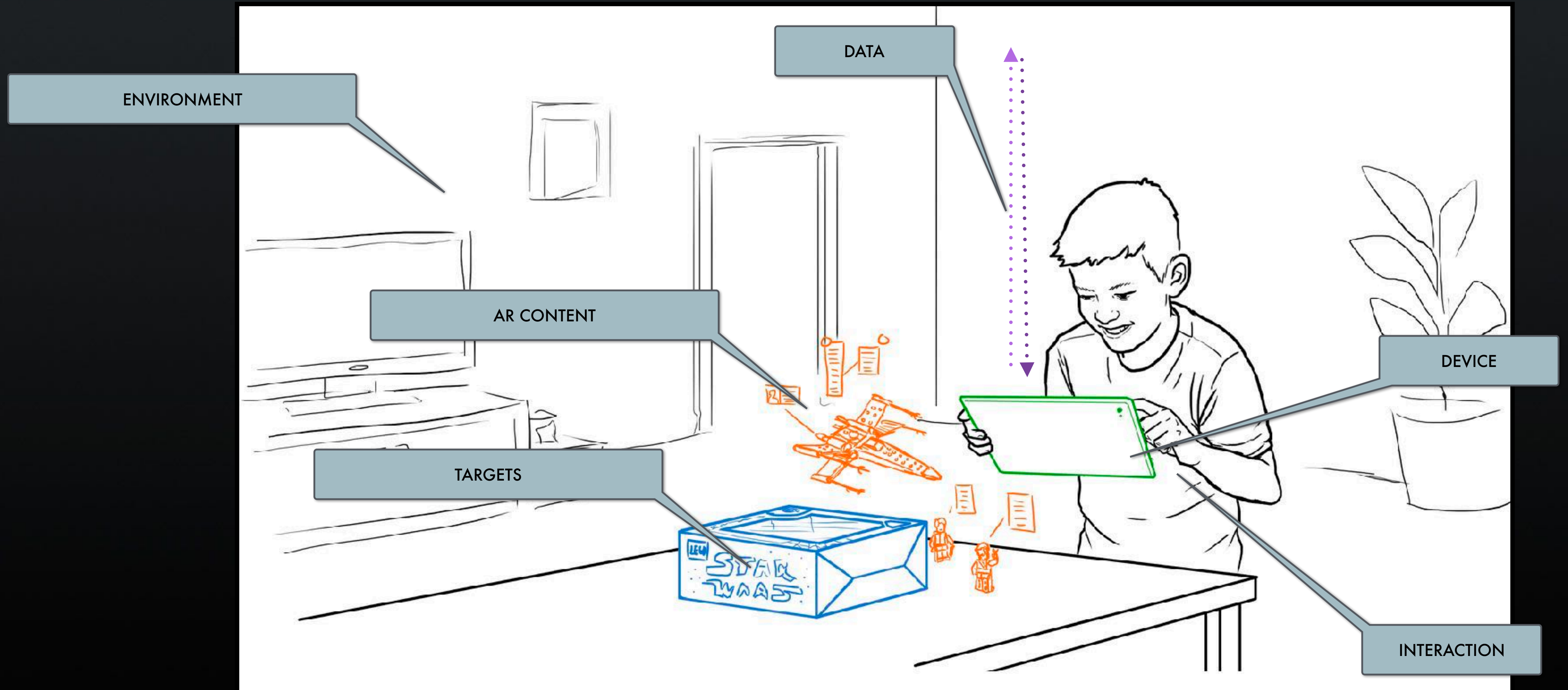
A dark, stylized image of a harbor scene in Aarhus, Denmark, with a large ship and historic buildings.

AARHUS

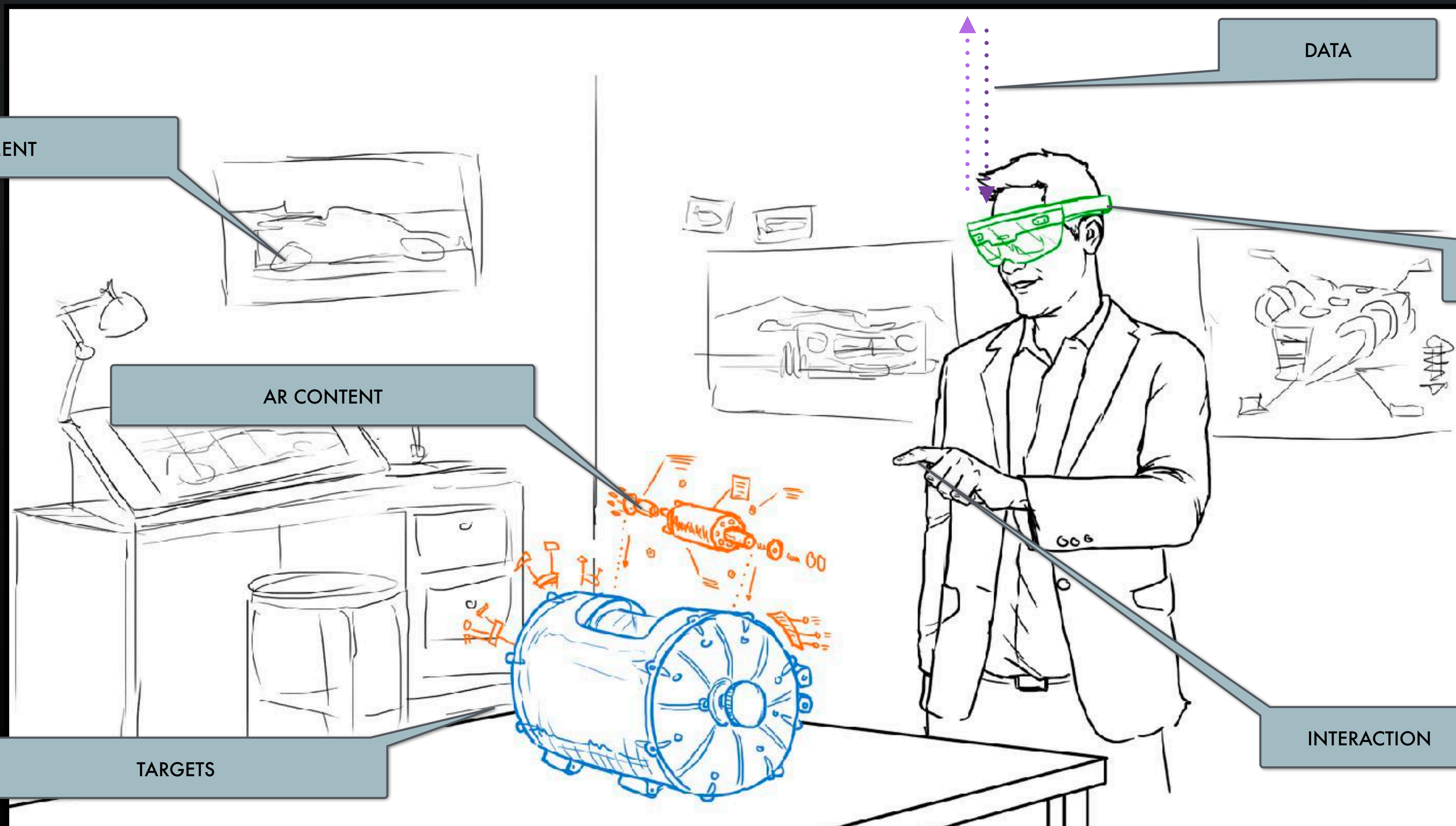
Our Approach To Mixed Reality



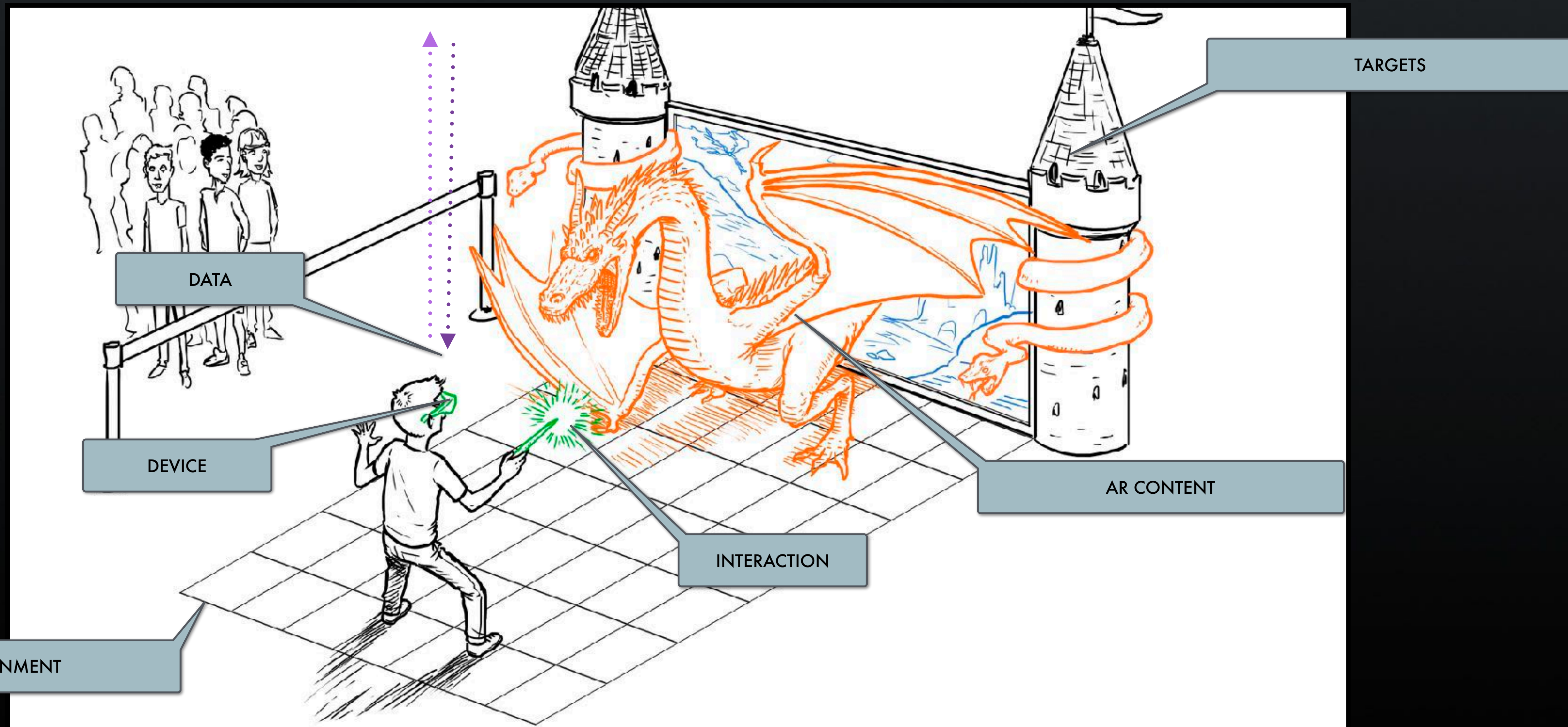
CONSUMER

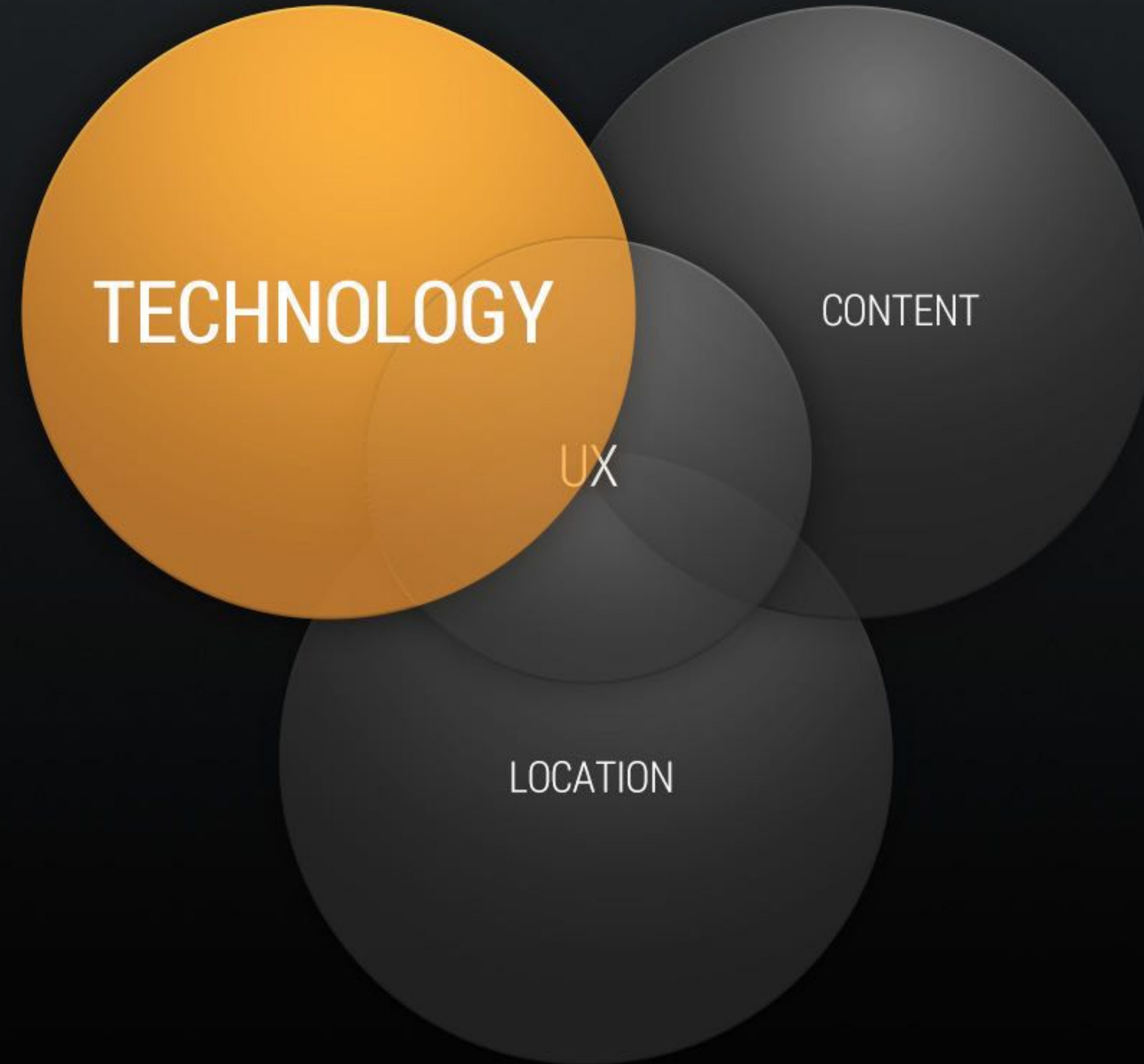


ENTERPRISE



LOCATION





Our Technology Mix

	VR	AR/XR Software	AR/XR Hardware
Consumer	 Daydream  VIVE  oculus	  SHOWCASE DEVELOPER ARCore	mira  SHOWCASE DEVELOPER A V E G A N T SHOWCASE DEVELOPER  SHOWCASE DEVELOPER
Enterprise			 

PRO-TIP

YOU STILL NEED AN APP

- ARKit and ARCore are both integrated into the OS of the device which provides great performance advantages
- The content and the experience still requires an App download
- Creating the app is just the tip of the iceberg
- Consider ambassador experience
- Consider AR module

PRO-TIP

PICKING THE RIGHT HARDWARE/SOFTWARE

- Both ARKit and ARCore target later release phones.
- Neither Google or Apple's solutions are currently cross platform
- Features like 3D reco, recognizing vertical surfaces, 2D image redo all currently exist in other platforms like Vuforia
- Licensing model can be just as important as tech
- Evolutionary leaps in hardware and software can happen midstream



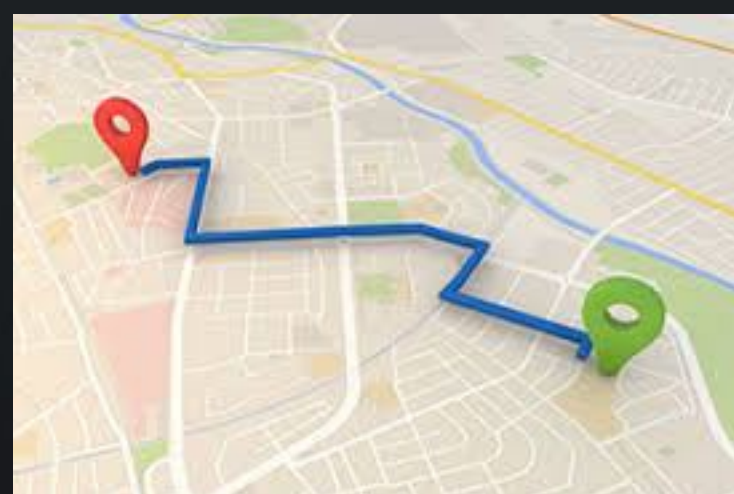
PRO-TIP

INCLUDE SOCIAL AND OTHER TECH

- AR is most powerful when paired with other technology
- User's naturally want to share their AR experience
- Live data, AI, location awareness, transaction systems make AR practical and useful



Social



Indoor/Outdoor Mapping



Live Data



Transaction



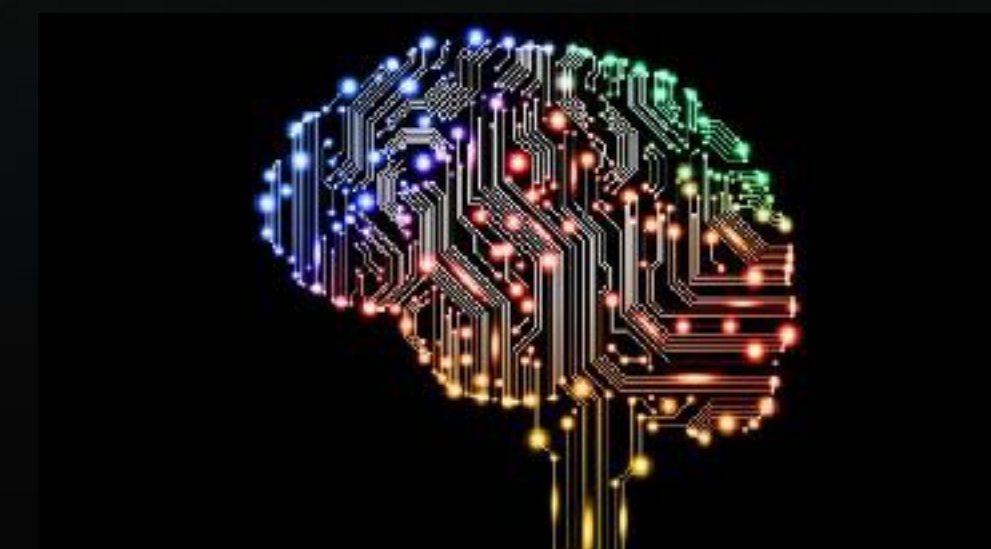
Realtime
lighting/reflection



Telemetry



Audio
Fingerprint



AI



DREAM DRIVE

Powered by Dreamworks Connected Travel Platform



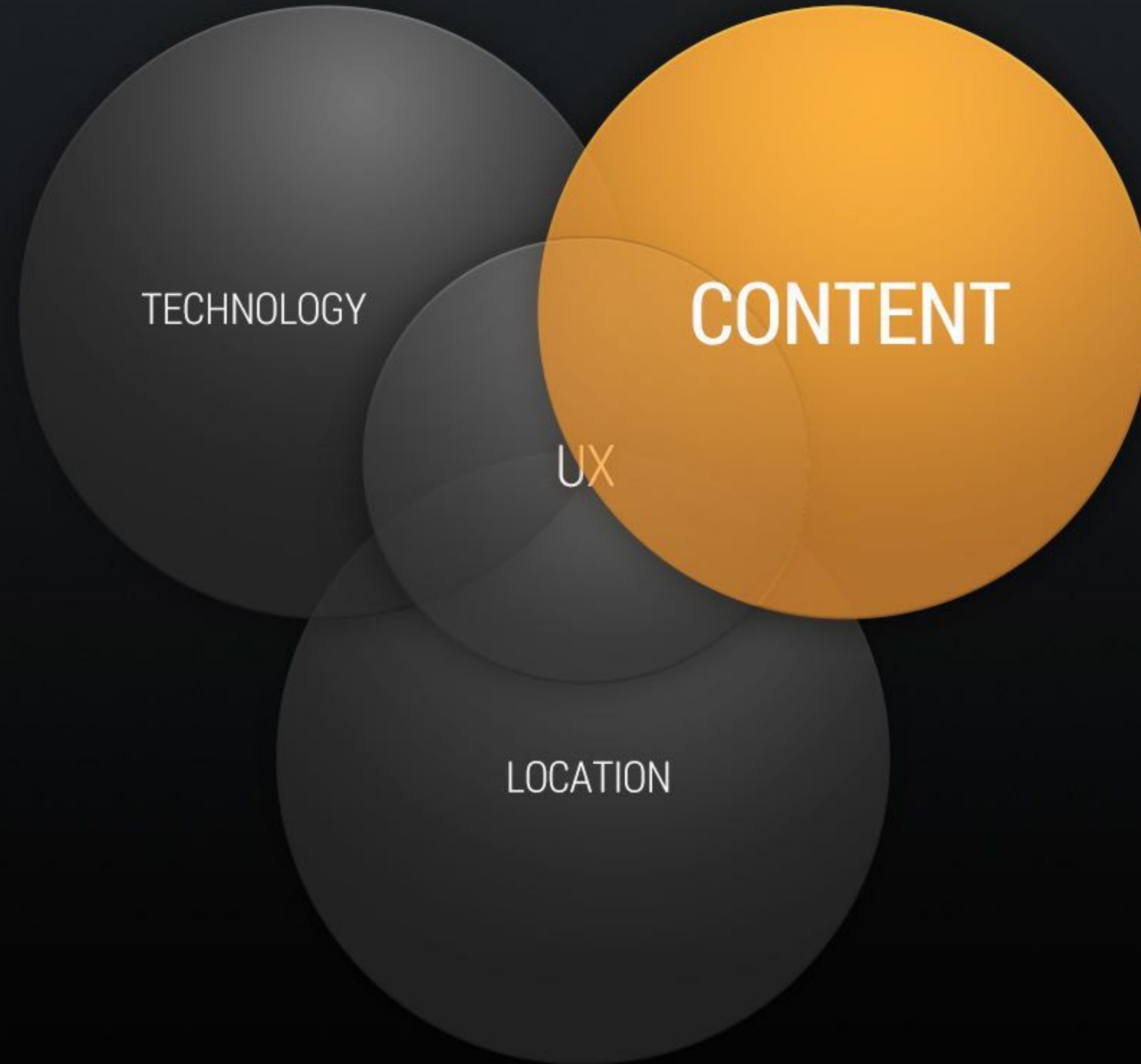
LESSONS LEARNED - JOLLIBEE



WIRELESS DATA IN THE PHILIPPINES

SLOW DATA ISSUES

- Wifi not in restaurants yet (App needed “happy meal” box from restaurant)
- Philippines at bottom 10 of 75 countries in Open Signal 4G speed report
- 4G half of global average
- 3G speeds less than half of global average



CONTENT

TYPES

- 2D: Images, UI, Text
- 3D: Characters, Objects, Environments, Effects
- Audio: Voice Over, Music, SFX

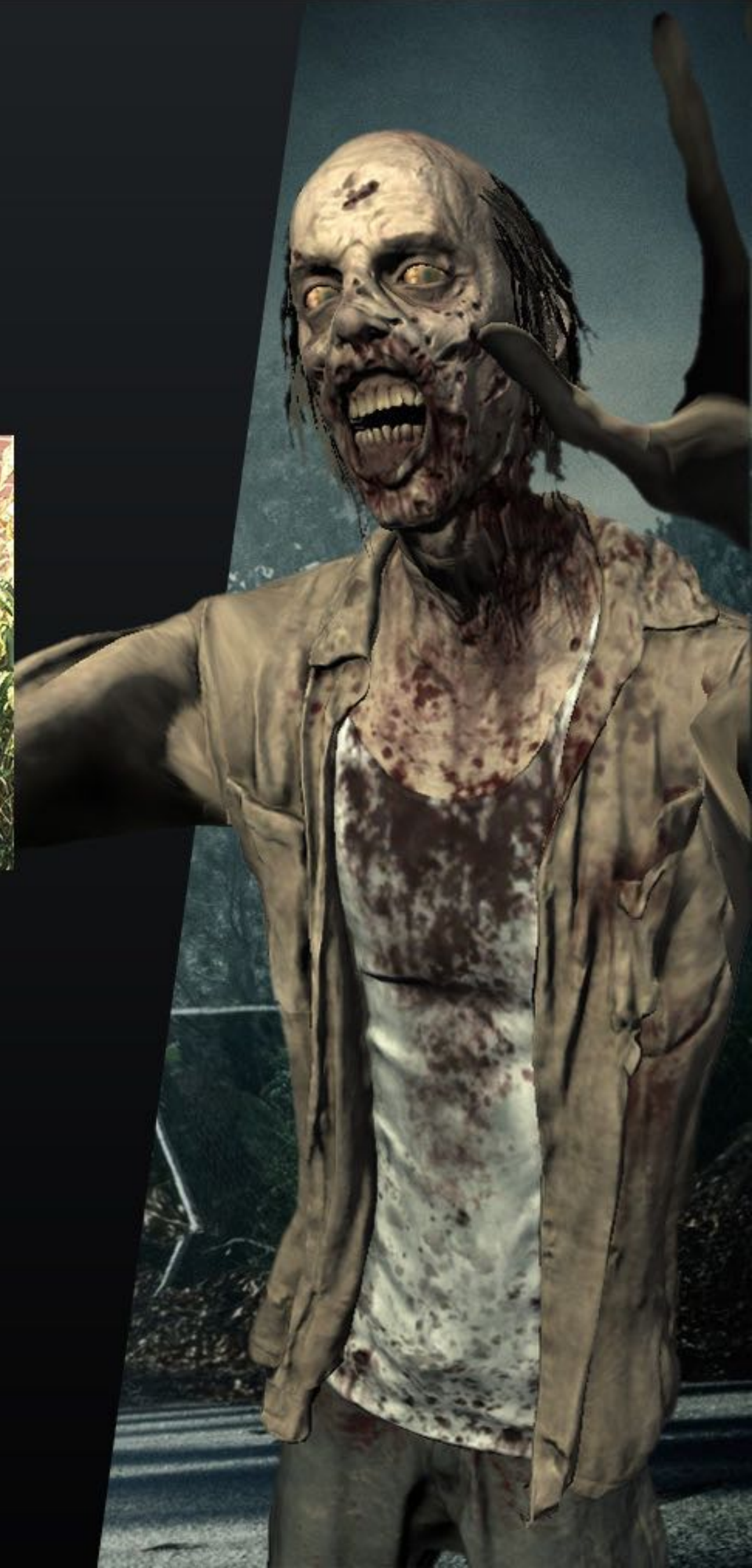
PRO-TIP

PLAN FOR 3D BUDGET

- 3D can absorb large % of budget
- Client 3D assets may not be available or not in a usable format
- Significant task taking film VFX assets or production CAD assets and making them AR friendly
- Variety of content is important
- Completeness of content is important

The Walking Dead Encounter App

AMC



- Co-branded AMC & Mountain Dew AR app to promote Season 8 of The Walking Dead and various Mountain Dew products
- Unlock and activate new walkers while watching new episodes of The Walking Dead or by scanning Mountain Dew products
- Capture a total of 20 walkers that can be used in the Scene Creator
- Position and pose with AR walkers to take photos/videos with and share across social

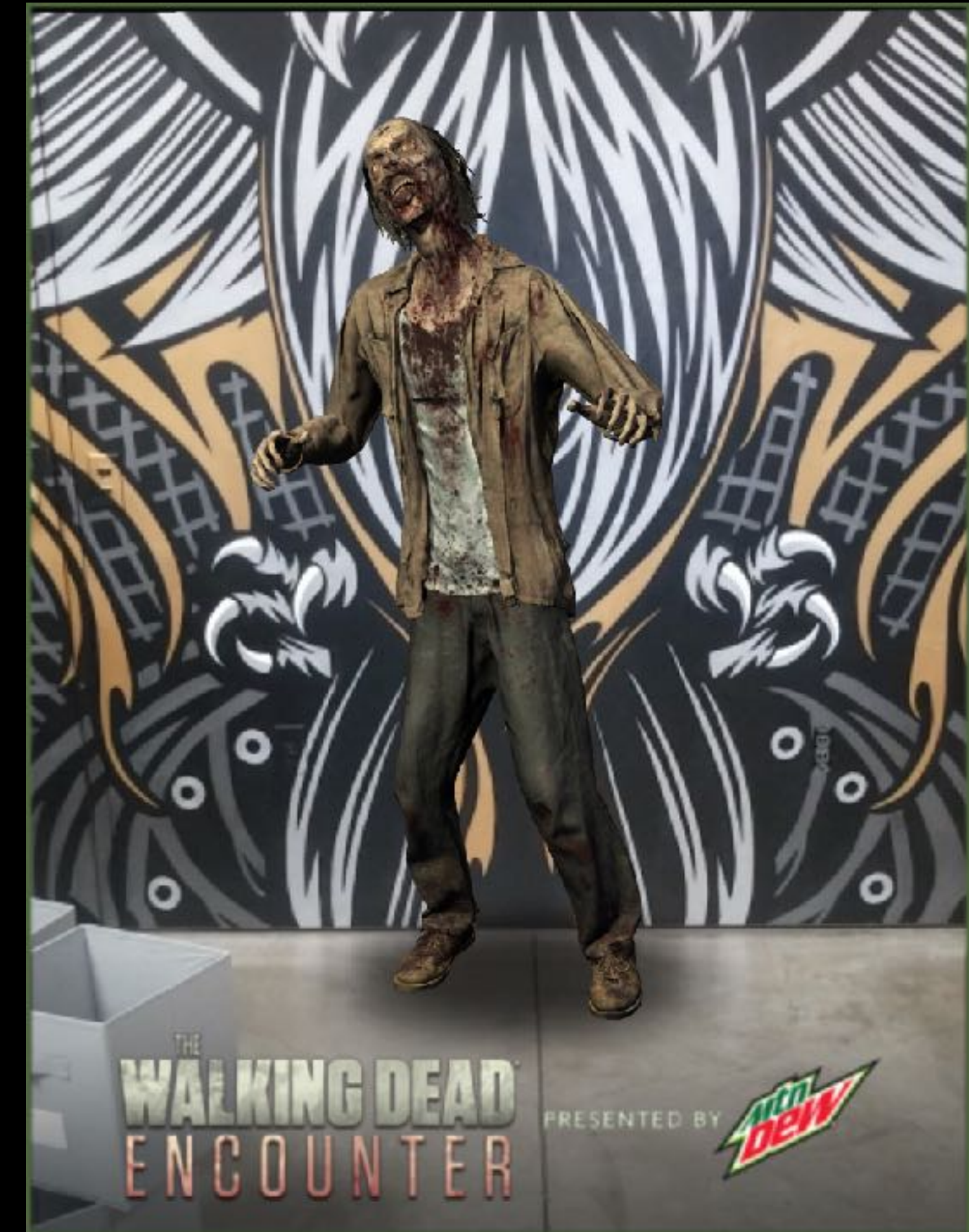


Skin Variation

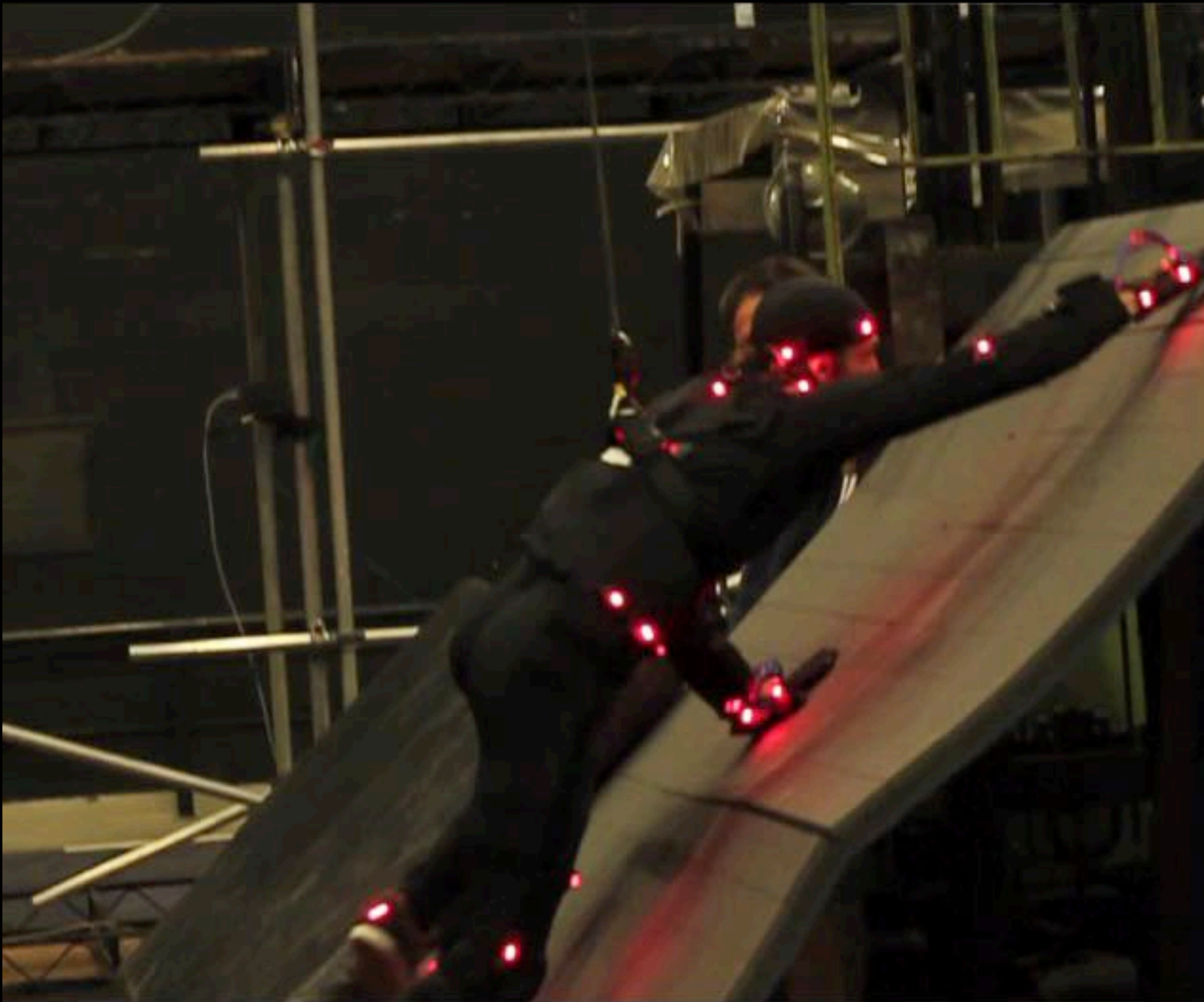


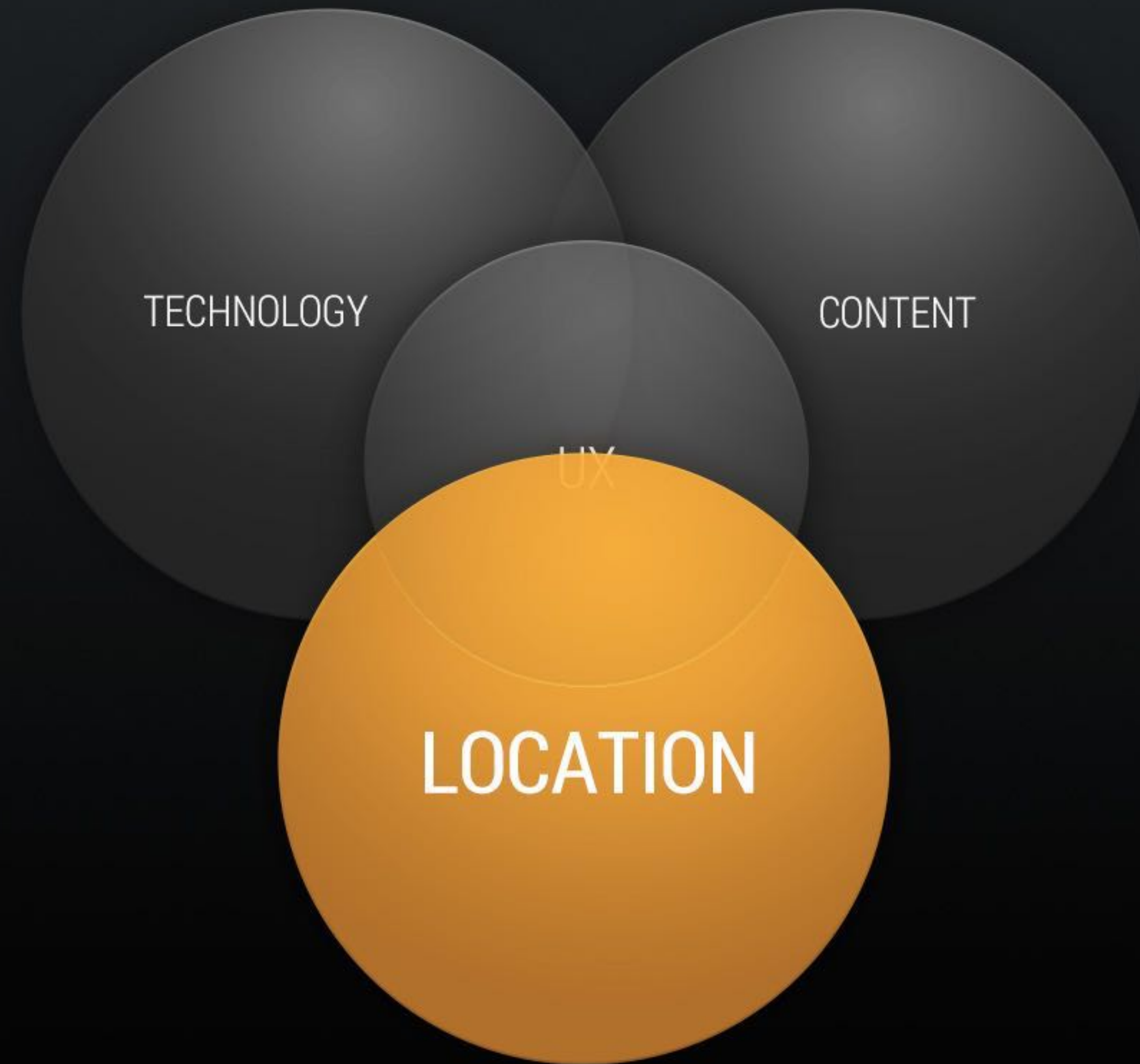
Yellow Eyes

Good reference for
teeth and gums and
blood in and around mouth



LESSONS LEARNED



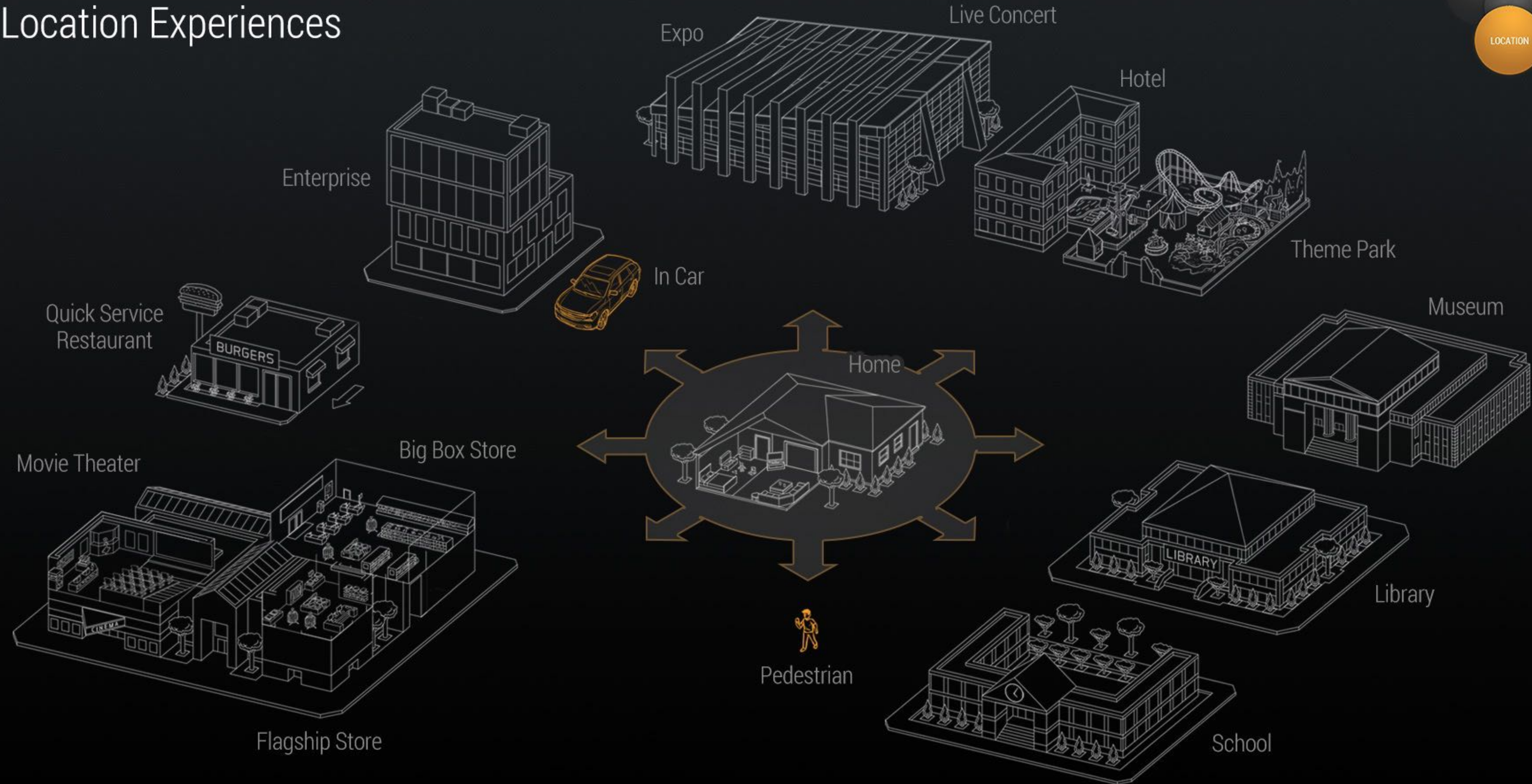


PRO-TIP

Location Constraints

- Collision and Occlusion break believability
- Available space is a key consideration - also affected by FOV
- Indoor vs outdoor
- Lighting conditions, magnetic interference, foot traffic, table size, shelf height, signage space etc. may need to be factored in

Location Experiences





STAR WARSTM FORGET FRIDAY II

"We are excited that Augmented Reality will allow fans to experience the universe in a whole new way,"

- KATHLEEN KENNEDY, PRESIDENT OF LUCASFILM

"Force Friday II puts fans right at the center of the action using augmented reality to bring our characters to life like never before."

- JIMMY PITARO, CHAIRMAN, DISNEY CONSUMER PRODUCTS & INTERACTIVE MEDIA

"...this franchise is aiming to push the AR promotional game to a new level."

- THE WASHINGTON POST

*The Hollywood
REPORTER*

*The
New York
Times*

The Washington Post

Entertainment

● *USATODAY*

THE VERGE

abc NEWS

REUTERS

Forbes

Bloomberg



Chicago Tribune

FORTUNE

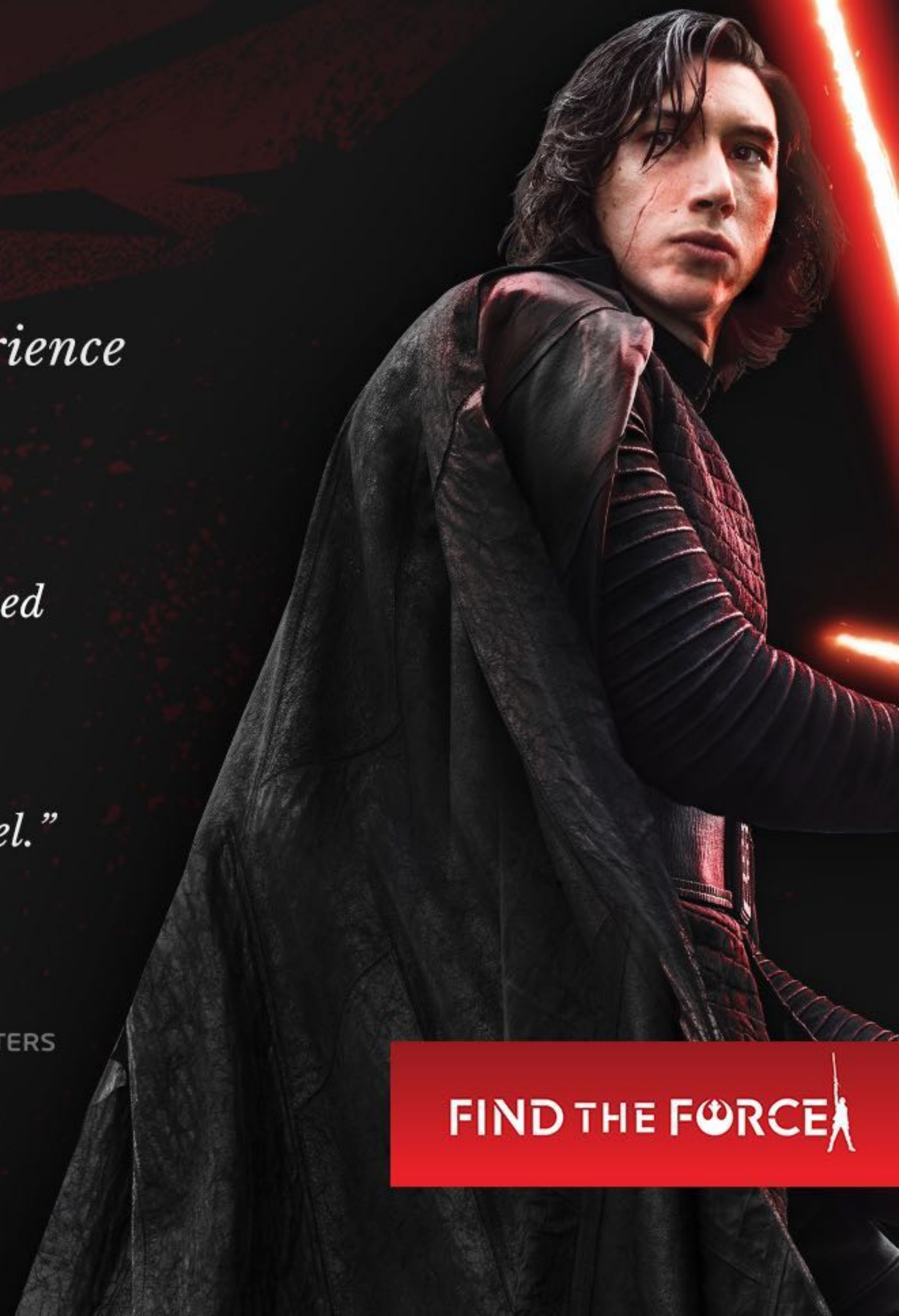


COLLIDER

kidscreen

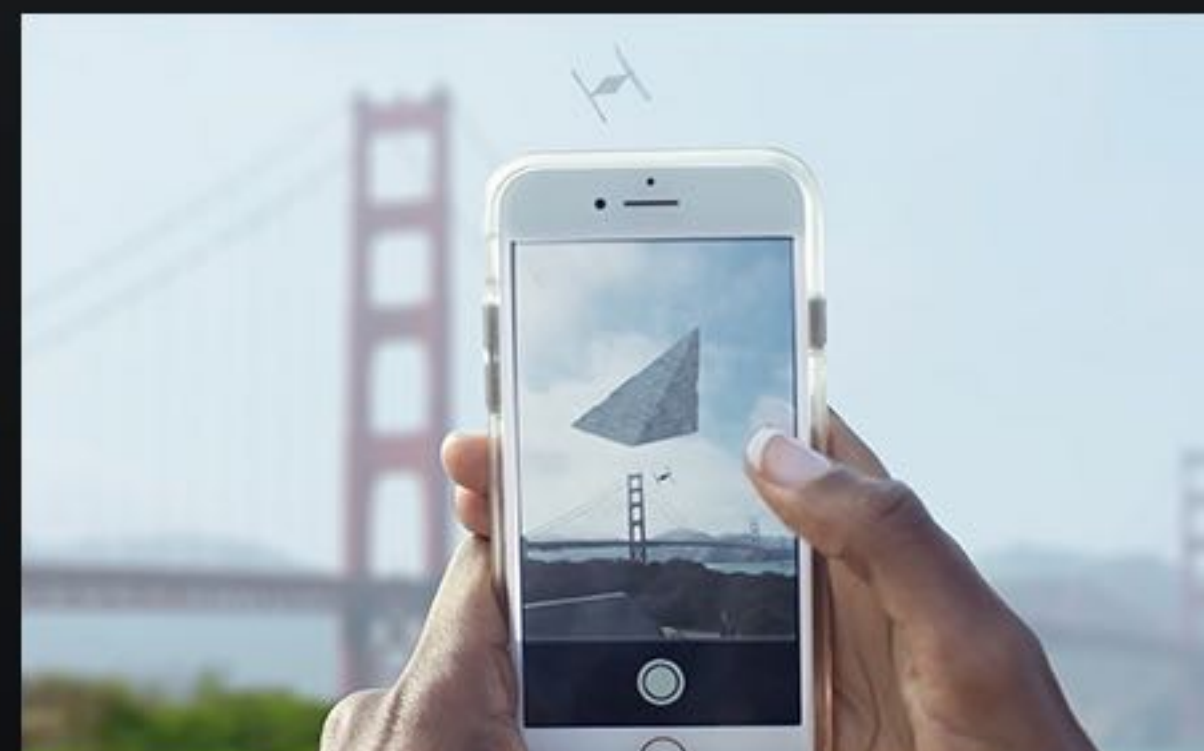
BUSTLE

FIND THE FORCE 



Star Wars Force Friday II: Find The Force

DISNEY / LUCASFILM



- 15 Characters were unlocked over the three days of Force Friday II weekend, including one never-before-seen character from The Last Jedi
- The activation was available in more than 20,000 retail locations across 30 countries
- A life-size AR Star Destroyer experience was featured at 20 iconic landmarks across the world, including the Eiffel Tower, Niagara Falls and the Sydney Harbor Bridge

FIND THE FORCE



STAR WARS
FIND THE FORCE

**AUGMENTED REALITY
EXPERIENCE**

PRO-TIP

Don't forget Physical

- Physical elements can provide a contextual origin point
- 3D recognition is more magical than 2D recognition
- VPS provides understanding of interior space
- Machine learning visual ID is next



PRO-TIP

Consumer Messaging

- Often overlooked (departmental divisions)
- Consistency across media - social, web, tv, print is key
- BEFORE DOWNLOAD: Reason to download, how to download, where to play
- AFTER DOWNLOAD: No one reads instructions!
- Videos or guided play

FIND THE FORCE

SCAN TO UNLOCK

Learn more at starwars.com/findtheforce

FORGET FRIDAY

SEPTEMBER 1

1 **DOWNLOAD** the Star Wars app and **LAUNCH** the Find The Force experience

2 **SCAN** the characters with the Find The Force logo to unlock augmented reality experiences featuring favorite and new characters from *Star Wars: The Last Jedi*

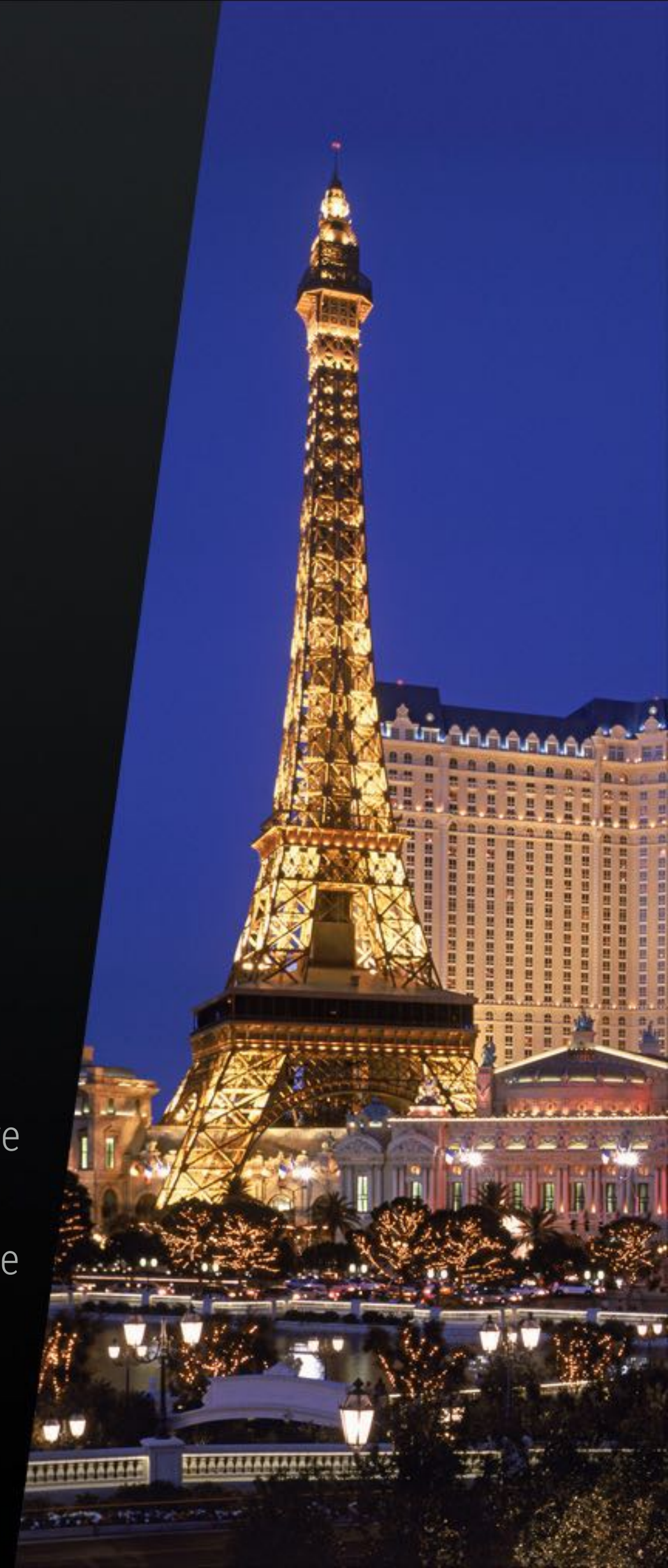
3 **UNLOCK NEW** experiences each day from September 1st – 3rd

SCAN TO UNLOCK

Learn more at starwars.com/findtheforce

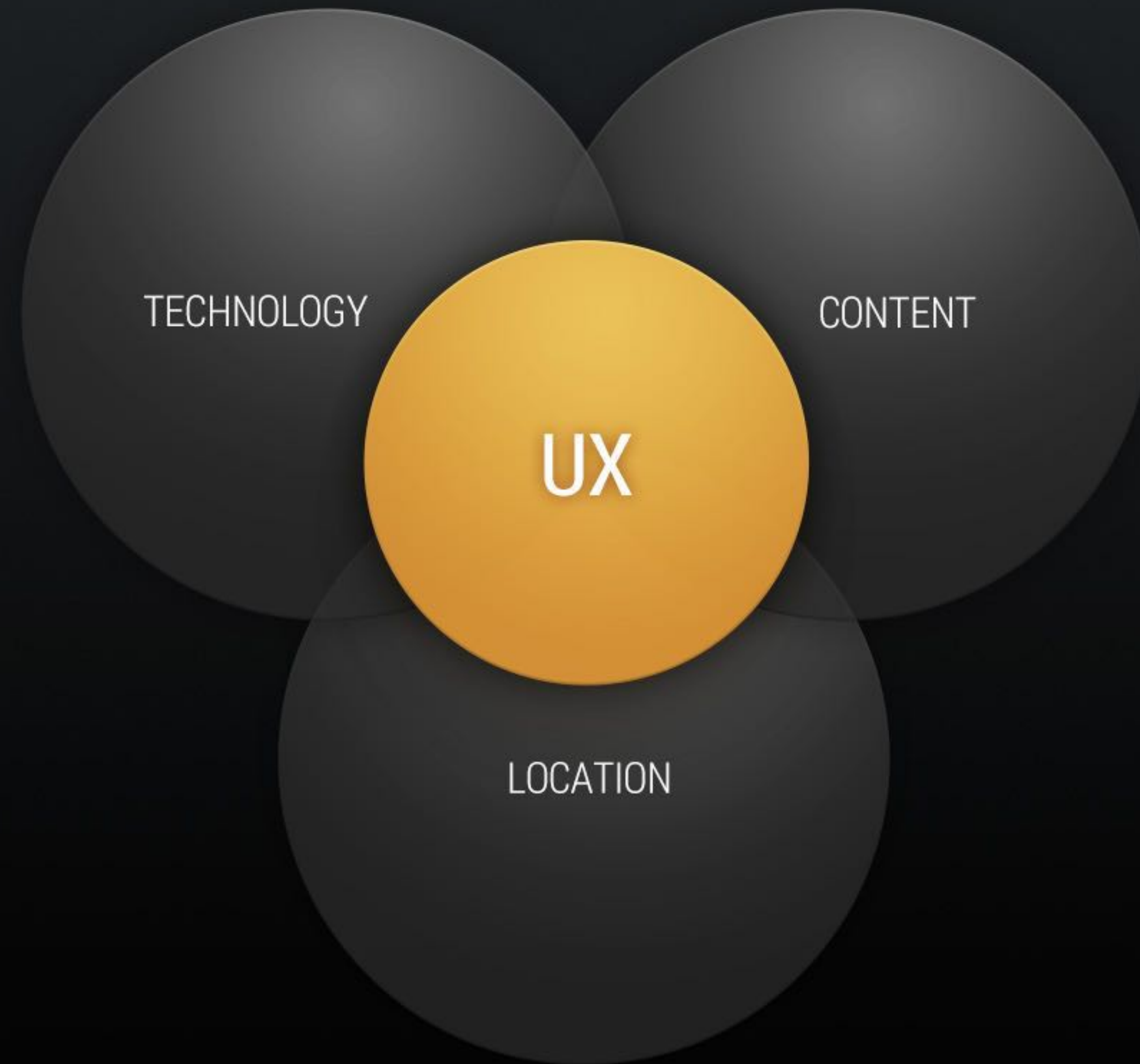


LESSONS LEARNED



- Enhanced the existing Eiffel Tower Experience tour at the Paris Las Vegas Hotel and Casino to include an interactive AR-guided tour
- Gimbal Proximity Beacons trigger audio commentary, videos and informational hotspots within the app along the route
- From atop the Las Vegas Eiffel Tower, explore an accelerometer-controlled panorama view of the corresponding Paris skyline
- Hotspots appear over important Paris landmarks and provide users with tips for similar Parisian experiences in Las Vegas





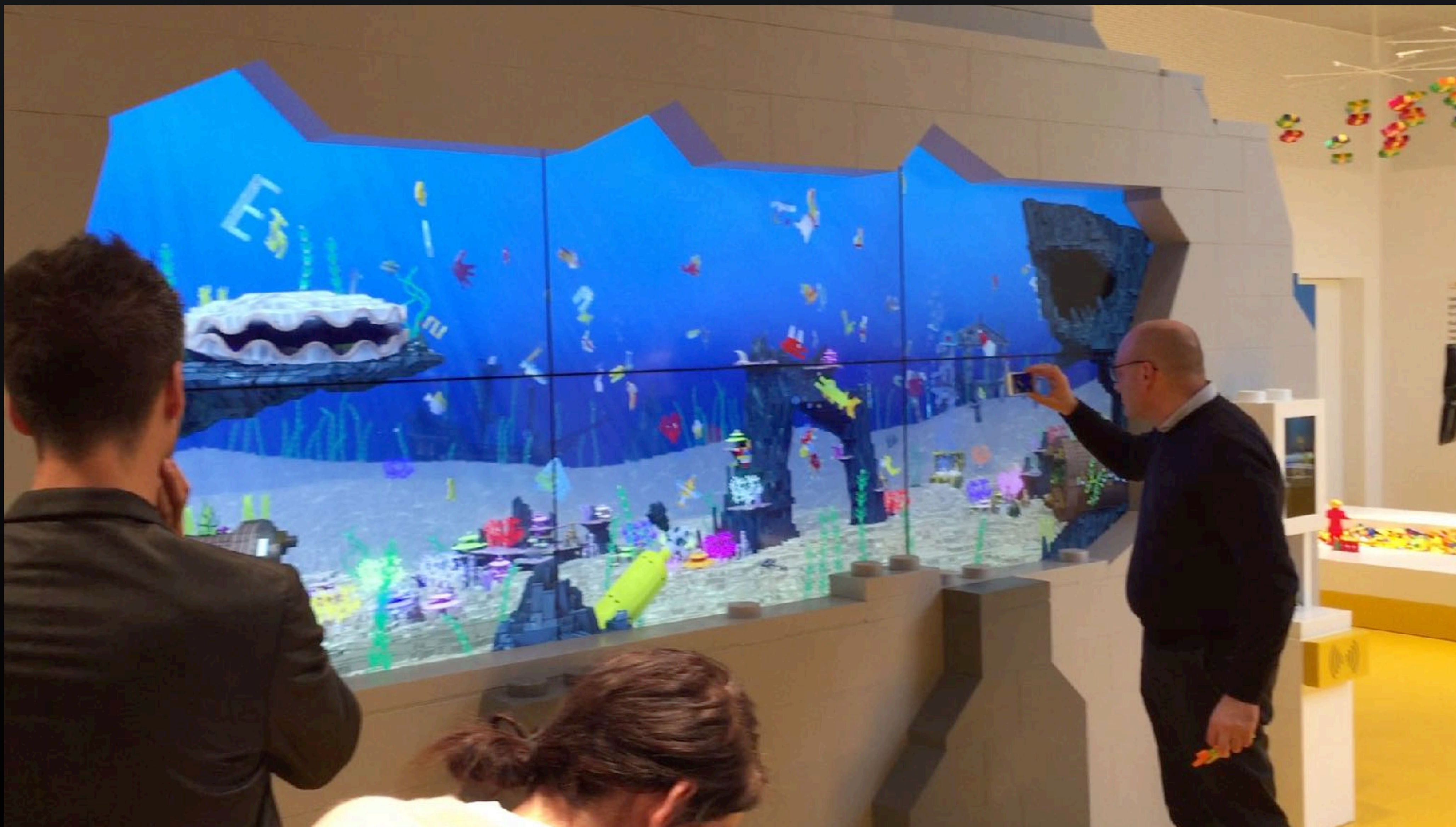
PRO-TIP

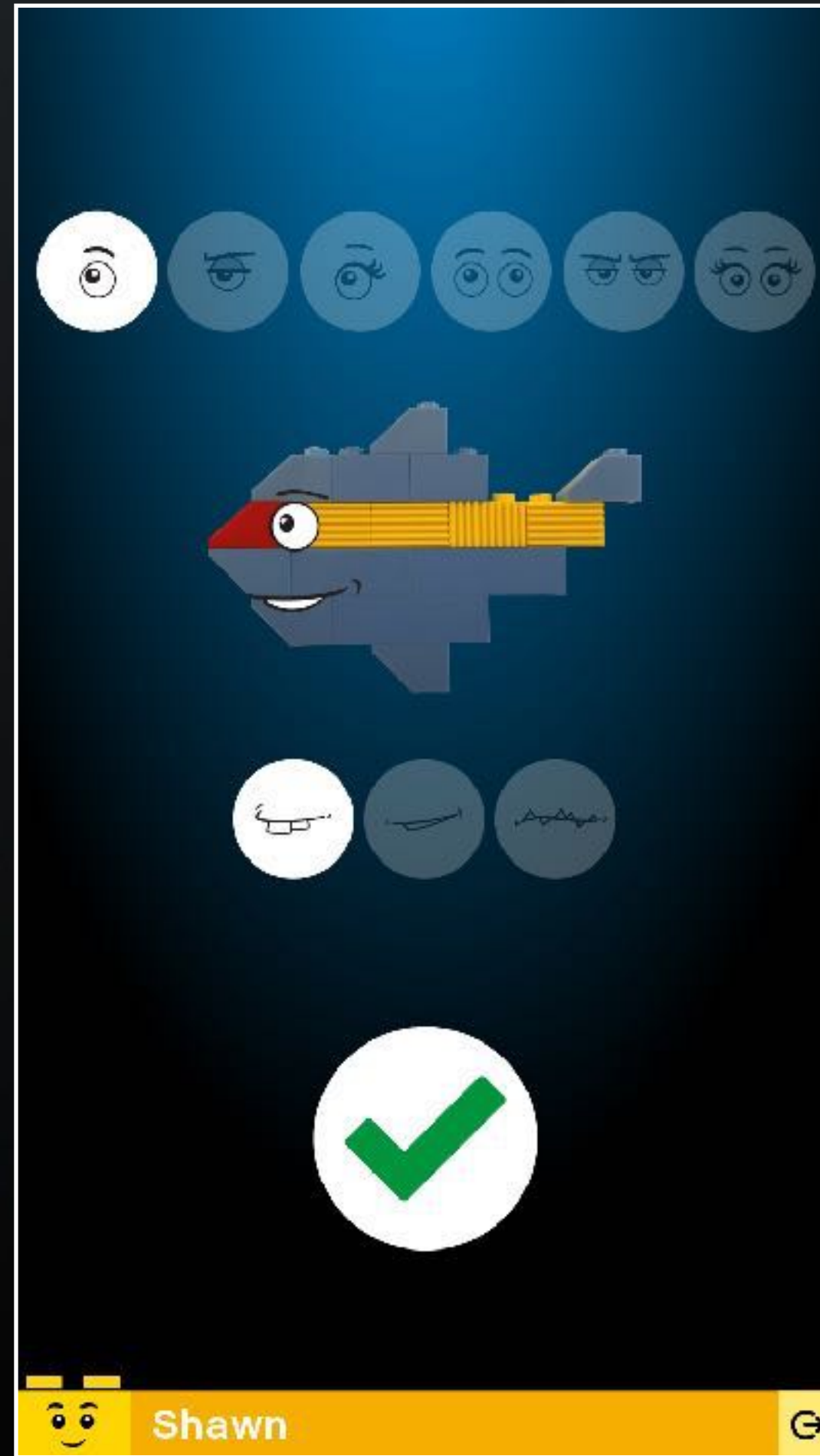
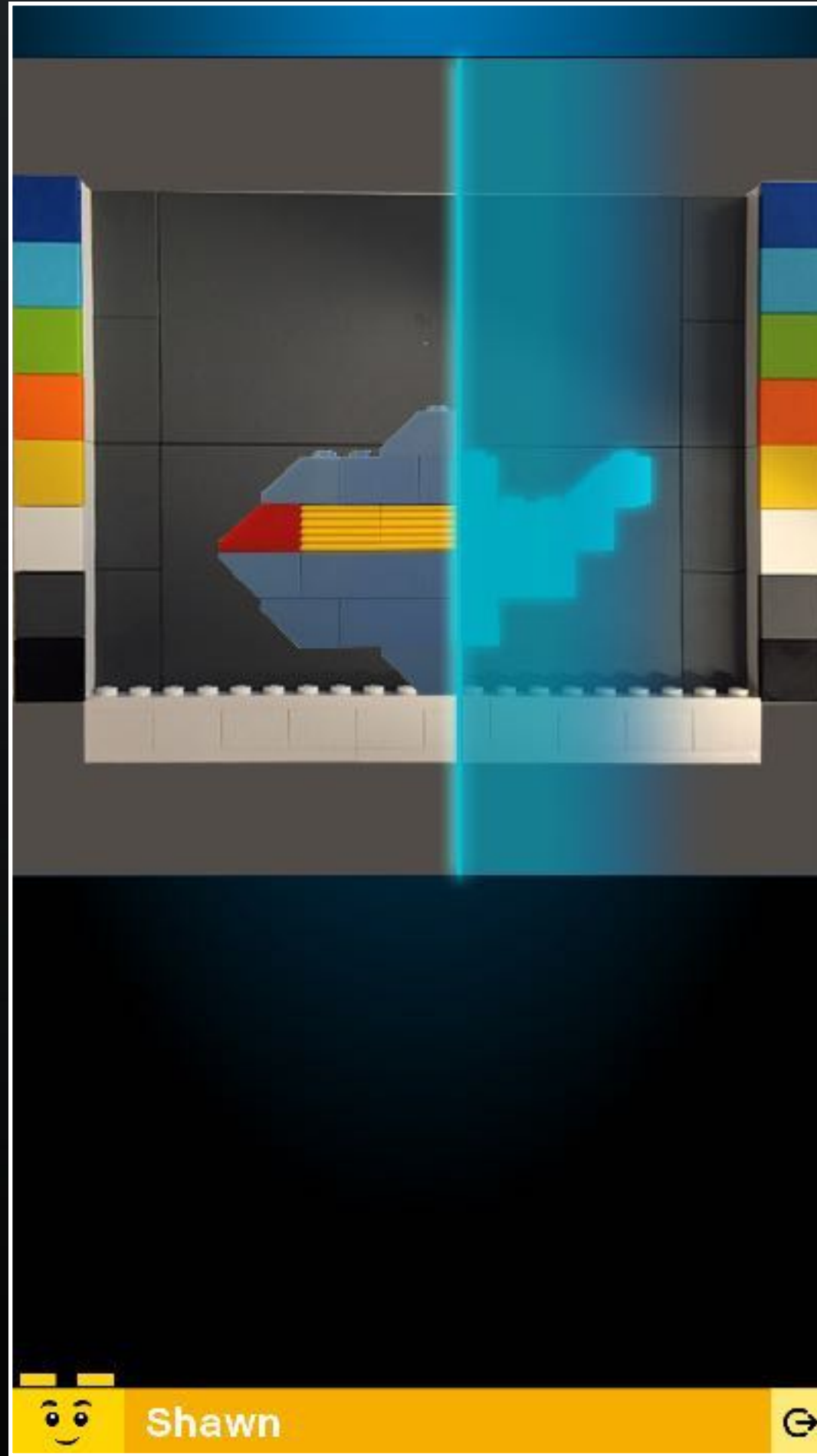
NO ONE WANTS A ONE TRICK PONY

- A singular AR experience is rarely worth downloading
- Repeating the same content gets tiresome quickly
- How is the experience fun the first minute, the first hour, the first week?
- More / Variety / Dynamic









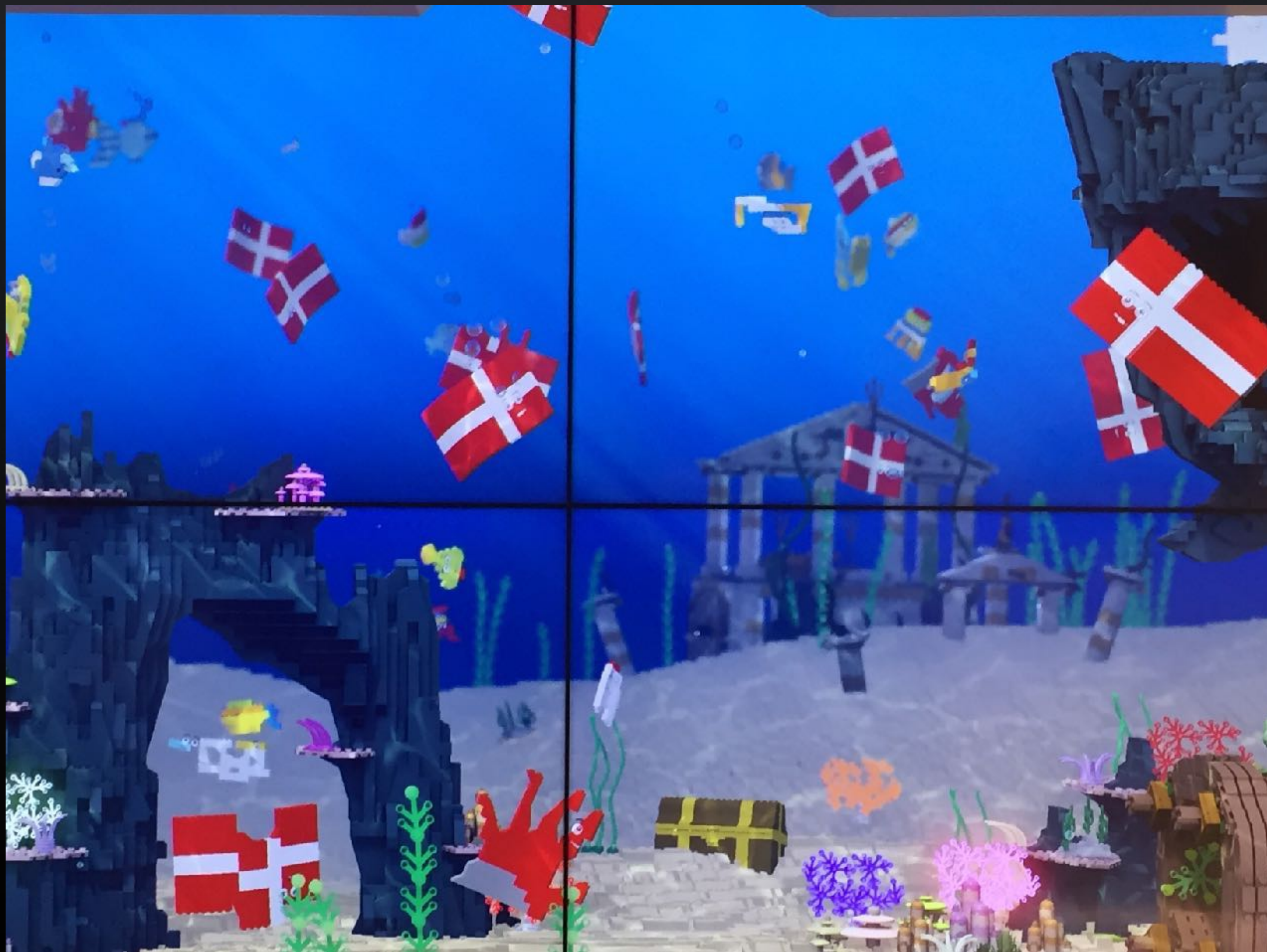
PRO-TIP

FATIGUE IS A BIG ISSUE

- Holding up phone (device-up) is surprisingly tiring
- Young kids can't hold up a device and tap
- Shoppers can only use one hand
- Fatigue also affects hardware - heat and battery issues

LESSONS LEARNED







Please

**Remember to
rate this session**

Thank you!

