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# INTEGRATING IMMERSIVE TECHNOLOGIES IN

# EDUCATION

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A Case Study of Virtual Reality

# IMMERSIVE TECHNOLOGIES

**VR** VIRTUAL  
REALITY

**AR** AUGMENTED  
REALITY

**MR** MIXED  
REALITY





# VR VIRTUAL REALITY

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Becomes reality.

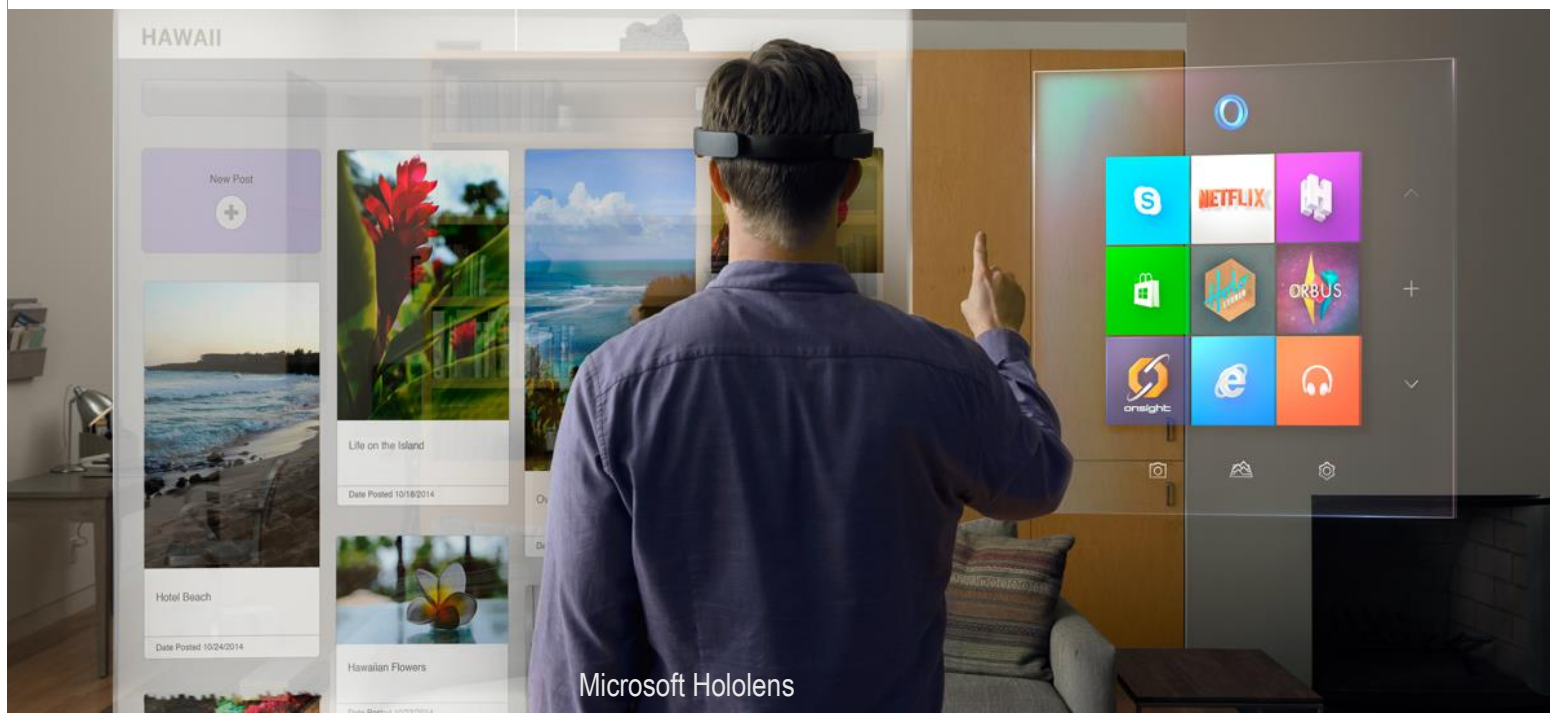


# AR AUGMENTED REALITY

Enhances reality.



Mobile augmented reality app for selecting features



Microsoft Hololens

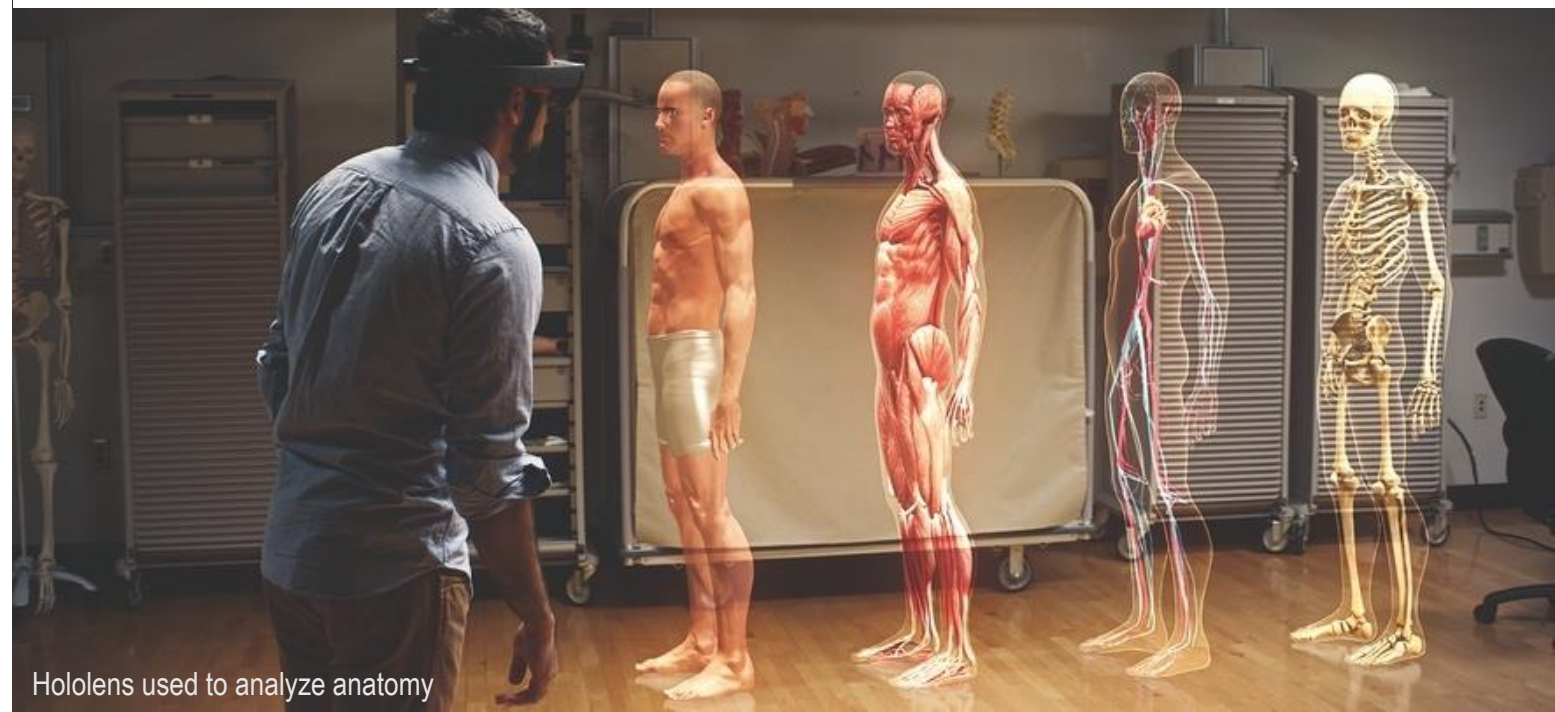


# MR MIXED REALITY

Manipulates reality.



Daqri Helmet interactive virtual environment



Hololens used to analyze anatomy



2016 A Year in Consumers' Hands



Marriot VRoom Service for customers to travel outside the hotel room.



Netflix implemented a virtual theater.



PokemonGo game using AR become a worrld-wide sensation

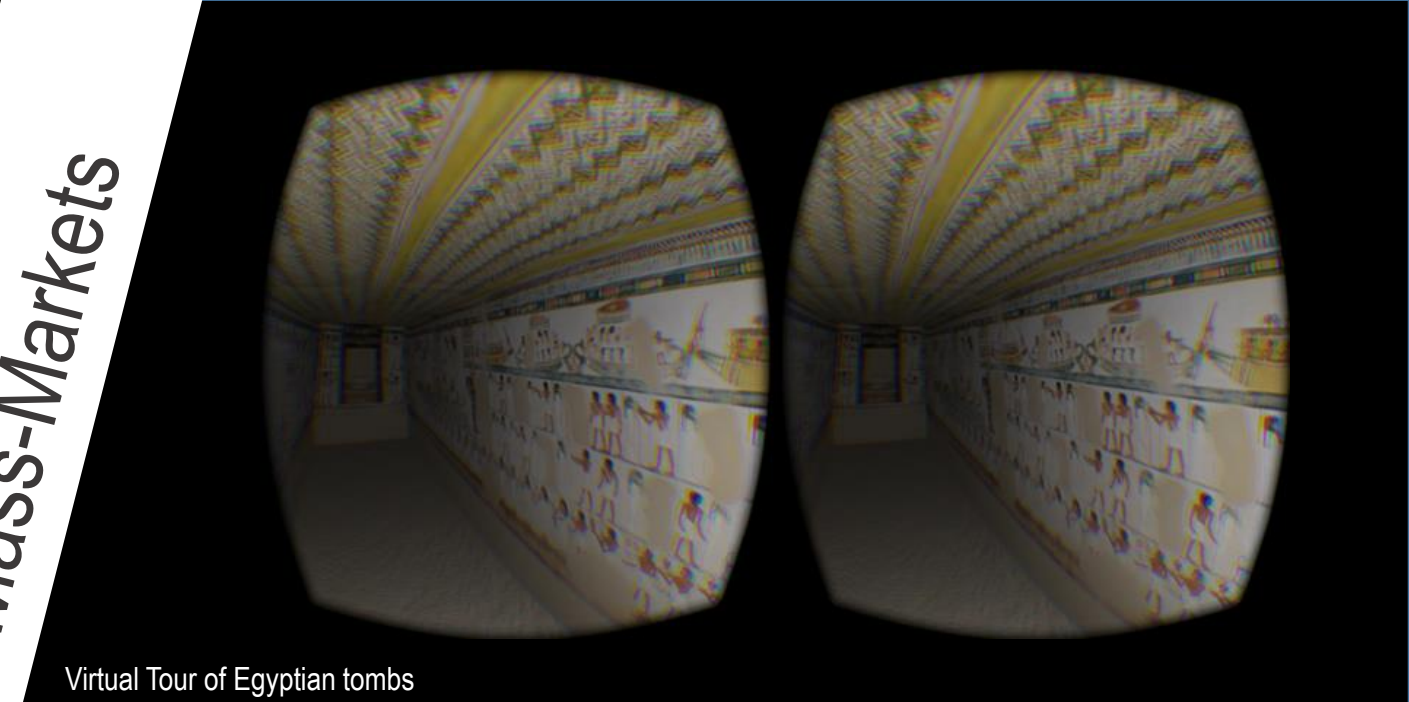


Toyota used a VR simulation for distracted driving message





MyLab on HoloLens brings an interactive period table to the chemistry classroom



Virtual Tour of Egyptian tombs



Virtual Tour of the Pantheon in Rome

2017 A Year in Mass-Markets



NearPod allows teachers to purchase virtual reality field trips for students



# MOCK-UPS IN PRACTICE

## PHYSICAL MOCK-UP



## VIRTUAL MOCK-UP



**\$50,000**

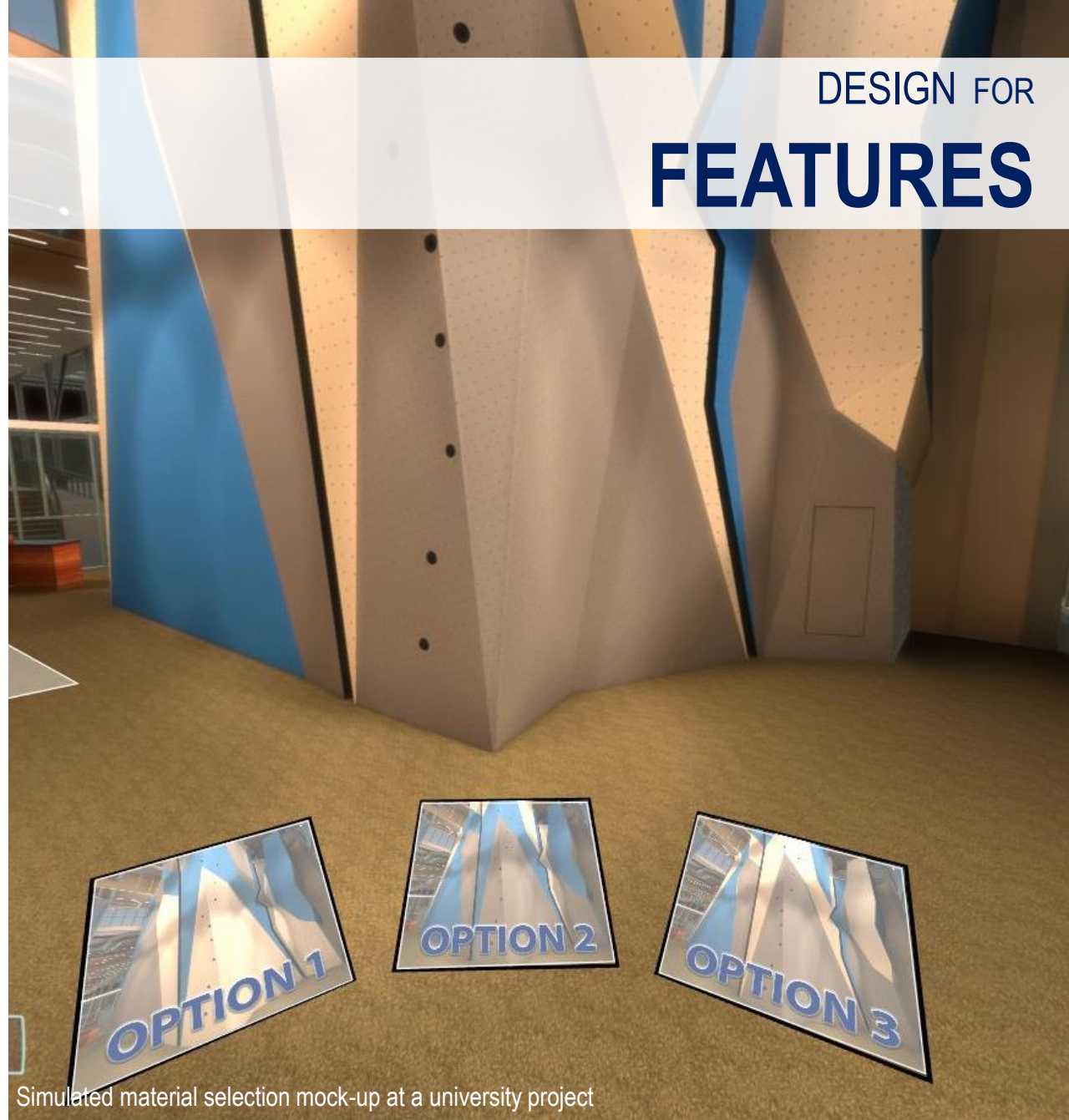
PROJECT SAVINGS



# DESIGN FOR FEATURES



Simulated faucet selection mock-up



Simulated material selection mock-up at a university project

DESIGN

CONSTRUCTION

OPERATIONS



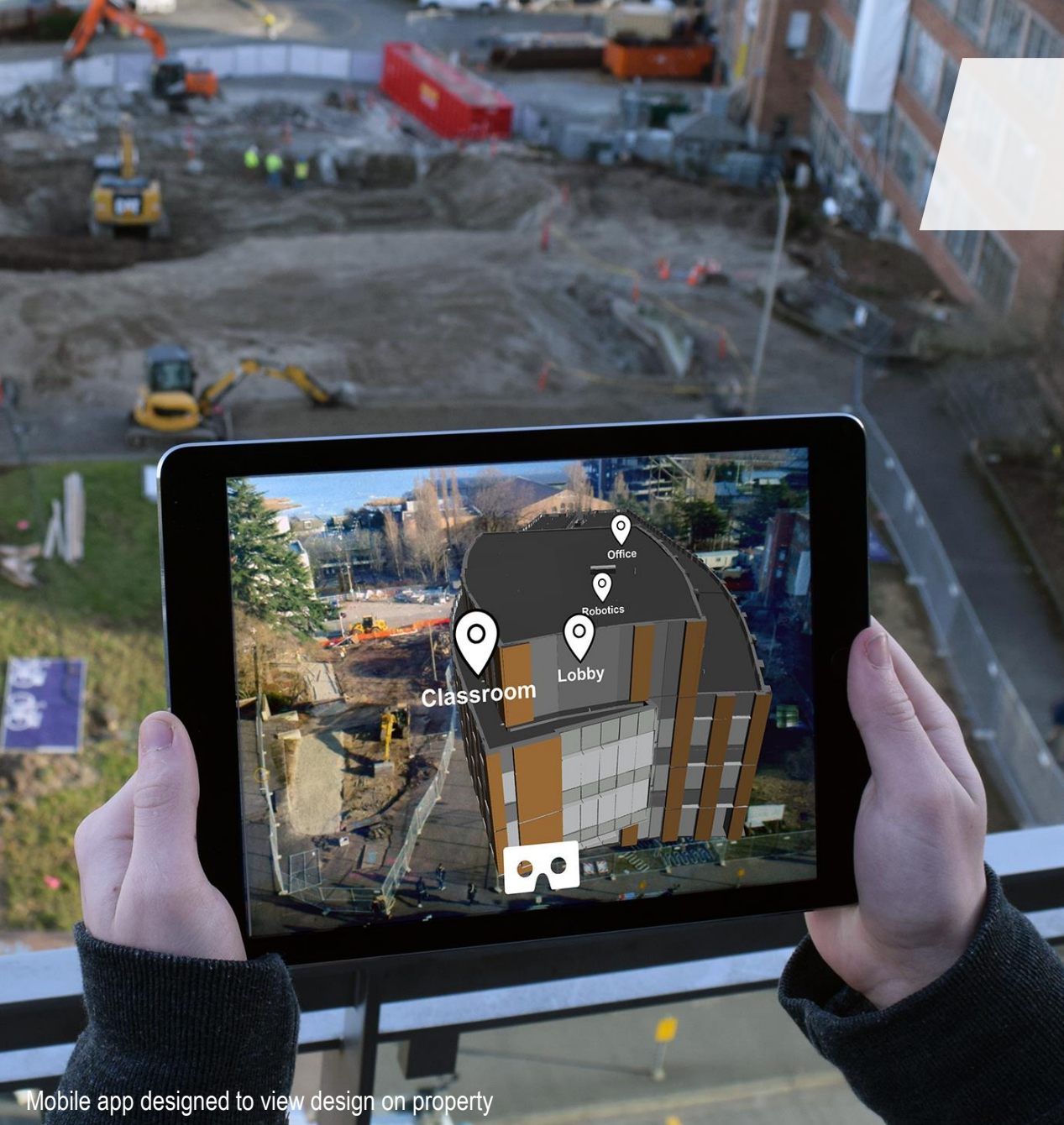
Virtual walk-through of a classroom



Navigating a virtual mockup in a work area

DESIGN FOR  
**COLLABORATION**





Mobile app designed to view design on property

DESIGN



Mobile app design to view design on property

CONSTRUCTION

DESIGN FOR  
**COMMUNITY**

OPERATIONS





BUILD WITH

# ENGAGEMENT



Virtual photo tour used on a university construction project



DESIGN

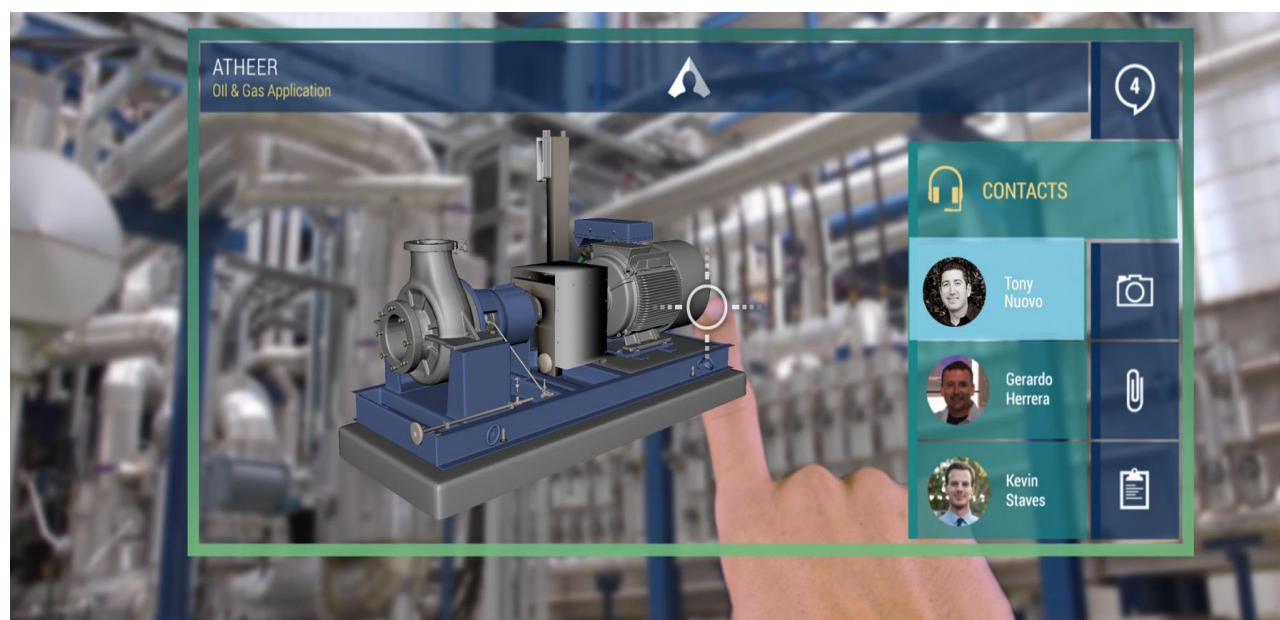
CONSTRUCTION

OPERATIONS





Daqri Helmet tested on a construction site.



DESIGN

CONSTRUCTION

OPERATIONS





Harvard University virtual campus tour

DESIGN



# TRANSITION TO STUDENTS

Real estate using virtual reality to sell high-end properties



Virtual Tour of a classroom at the UNSW Australia Business School

CONSTRUCTION

OPERATIONS



### Blood Flow Heart

- Circulatory System
- Heart to Eye Pathway

### Blood Flow Eye

- Retinal Arteries
- Choroidal Arteries
- Arterial Circle(Iris)
- Muscular Arteries
- Orbital Arteries
- Veins

| Metric          | Normal | VR Enabled |
|-----------------|--------|------------|
| Attention Level | ~30%   | 100%       |
| Test Scores     | ~30%   | 30%        |

# TRANSITION TO LEARNING

EON Experience VR

Eon Experience Reality is changing the way society educates to encourage creative learning

Google play Available on the App Store



# INTEGRATING IMMERSIVE TECHNOLOGIES IN

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### Best Practices of Implementation

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#### Immersion

Facilitate immersion process for a new user.

#### Navigation

Narrate the user through the virtual environment.

#### Facilitation

Guide the user what to look for in the environment.







THANK YOU

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