AUTODESK **UNIVERSITY**

Redefine the Way We Collaborate Visually Using Augmented Reality

Khang Tran
Skanska USA Building - *VDC Estimating Engineer*
khang.tran@skanska.com

Class Description:

I want to challenge you to rethink about your innovation culture. My goal is to share how Skanska utilizes technology, innovation, and creative thinking to inspire us to think, create, and build differently by analyzing several case studies, looking at how those tools, processes, and metrics were utilized in the context of construction management. The goal is to collaborate more effectively with our design partners and create added-value solutions for our internal and external clients. I hope that you will walk away with practical takeaways, lessons-learned, and be inspired to innovate your organization.

Objectives:

1. Explore a new way to collaborate using AR, to excite and engage your internal and external clients, and foster a culture of innovation

2. Explore how to meet the company's current and future challenges by investing in your employees' knowledge, creativity, and technical expertise

3. Strategize how to generate business by improving the way we collaborate with your clients and influence their perception of your organization

4. Discuss how to elevate and expand the expertise and skills of your people to attract and retain key employees

Challenge:

The goal of this industry talk is to challenge you to rethink about your traditional workflow, collaboration method, and creative process. In addition, take actions to find opportunities to insert new technologies, creative thinking, and innovation into your work, environment, and culture.

Instructions:

1. Fill out the innovation framework, hardware and software analysis matrices (modify these matrices per your organization's needs, goals, and visions)

2. What's your story? How do you want to implement AR?

3. Fill out the Scenario Sheet

Innovation Framework	Marketing				Preconstruction				Operations		Strategy
	Early Game	Mid-Game	RFP	Interview	Conceptual	SD	DD	CD	Site Logistics	Safety	
Creative Process											
Tools											
Deliverables											
ROI											
Vision											

| Hardware | Ease | | Fidelity | Applicability | | Experiential Quality | Evaluation |
	Creator	User		Context	Content		
HOMiDO							
Google-cardboard							
Hologram							
HTC VIVE							
Oculus Rift							
Hololens							

Software	Ease		Fidelity	Applicability		Experiential Quality	Evaluation
	Creator	User		Context	Content		
AR-Media							
Fuzor							
Unity							
Stingray							
Rendering A360							
Worldviz							
Unreal							

Objective: Create different scenarios where technology, augmented and virtual reality are applicable to your workflow based on the innovation framework, hardware and software analysis tools you've developed per your organization's needs, goals and visions.

What's Your Story?

Scenario #1:
(Imagine a place and time where AR could help your team to communicate and collaborate more effectively with your clients)

Objectives:
(What's your vision for implementing AR into your workflow? What is the mindset required of the participants?)

Challenges:
(What's the issue you're trying to solve? Is there a business case for investment?)

Opportunities:
(What's the solution you're proposing? What are the benefits for your organization and clients)

Desired Outcomes:
(What's the outcome of your research and analysis?)

Lessons-Learned:
(What's your method for capturing and sharing lessons-learned to promote a culture of innovation for your organization?)

Scenario #2:
(Imagine a place and time where AR could help your team to communicate and collaborate more effectively with your clients)

Objectives
(What's your vision for implementing AR into your workflow? What is the mindset required of the participants?)

Challenges:
(What's the issue you're trying to solve? Is there a business case for investment?)

Opportunities:
(What's the solution you're proposing? What are the benefits for your organization and clients)

Desired Outcomes:
(What's the outcome of your research and analysis?)

Lessons-Learned:
(What's your method for capturing and sharing lessons-learned to promote a culture of innovation for your organization?)

Scenario #3:
(Imagine a place and time where AR could help your team to communicate and collaborate more effectively with your clients)

Objectives:
(What's your vision for implementing AR into your workflow? What is the mindset required of the participants?)

Challenges:
(What's the issue you're trying to solve? Is there a business case for investment?)

Opportunities:
(What's the solution you're proposing? What are the benefits for your organization and clients)

Desired Outcomes:
(What's the outcome of your research and analysis?)

Lessons-Learned:
(What's your method for capturing and sharing lessons-learned to promote a culture of innovation for your organization?)