CONTINUING EDUCATION AIA

ENVIRONMENTS

LIGHTING ENVIRONMENTS

The Future of Lighting in the Metaverse

Presented by Erin McDannald

Intro

ENVIRONMENTS

LIGHTING ENVIRONMENTS

elevated
ENVIRONMENTS

Designers Lighting Forum

The Future of Lighting in the Metaverse

Erin McDannald

Wednesday, March 8th

Credit(s) earned on completion of this course will be reported to AIA CES for AIA members. Certificates of Completion for both AIA members and non-AIA members are available upon request.

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Questions related to specific materials, methods, and services will be addressed at the conclusion of this presentation.

Learning Objectives

At the end of this course, participants will be able to:

1. Gain a better understanding of the metaverse and what technology is needed to enter the field.
2. Understand the various ways the metaverse will benefit your business.
3. Learn about the benefits of creating lighting showrooms in the metaverse.
4. Comprehend the sustainability and financial benefits of metaverse.

What Does Lighting

Have to Do With It?

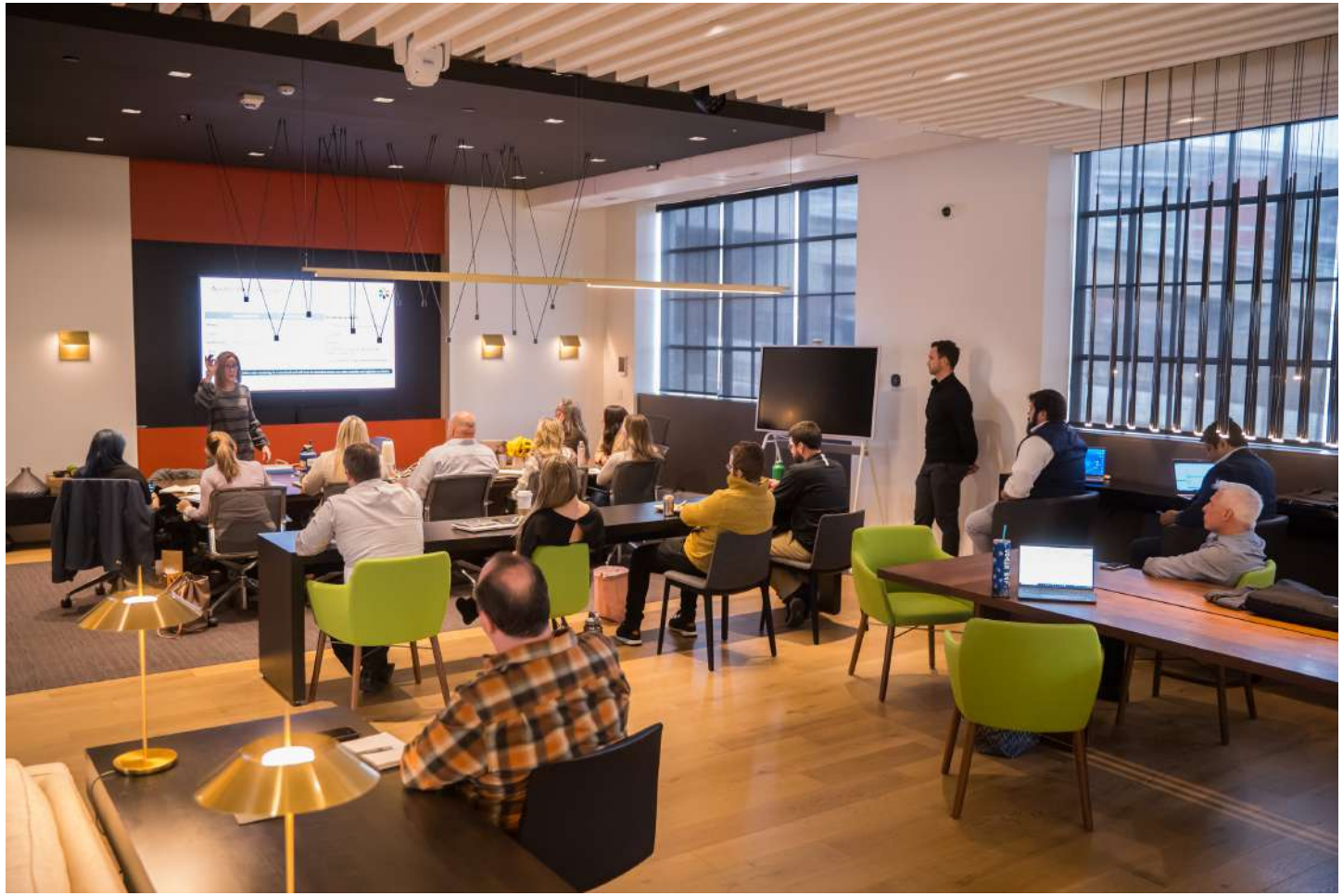
Lighting as a Gateway

- If you can “talk” to lights, you can talk to any electronic thing.
- Lighting is a clear gateway to the Internet of Things (IoT).

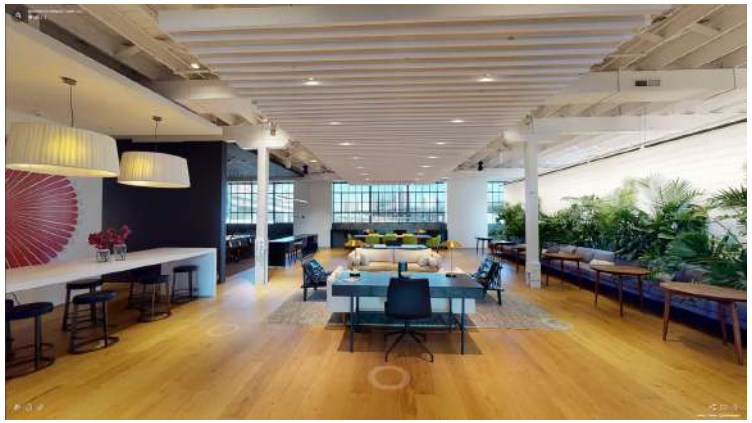
Lighting and ROI

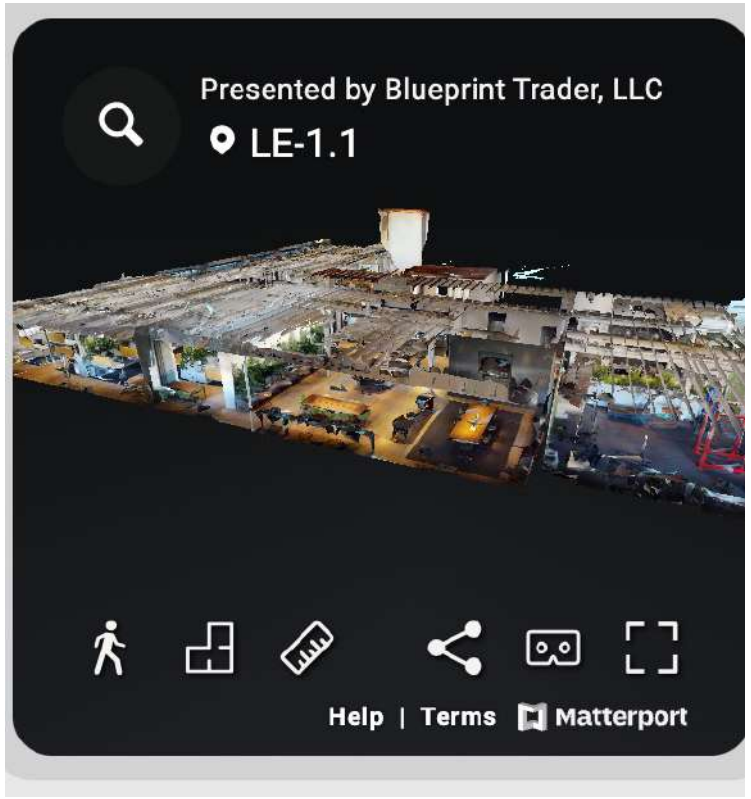
- The software offerings for IoT building systems don't prove a return on investment alone. Human elements and curated experiences prove ROI.
- Large manufacturers would create software that was proprietary to their own products, creating impossible integration scenarios.
- Architects were looking for ideas on how to better connect the physical and digital spaces.
- The IWMS sector is antiquated, but there is still a significant amount of money going in that direction.

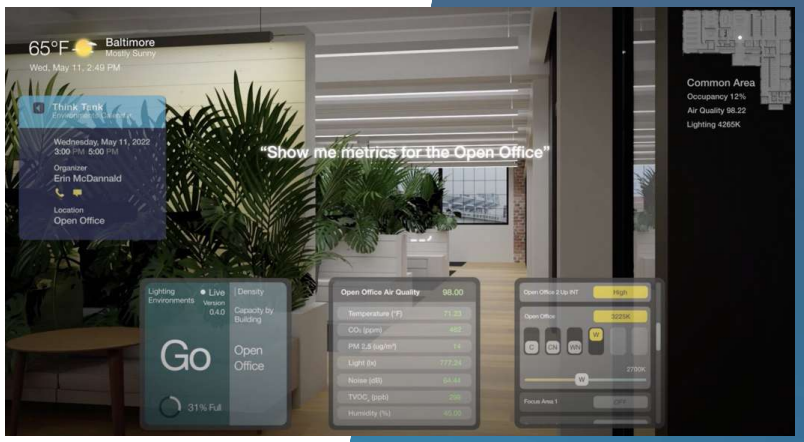
The Lighting and Design Community's Role



Defining the Digital Twin





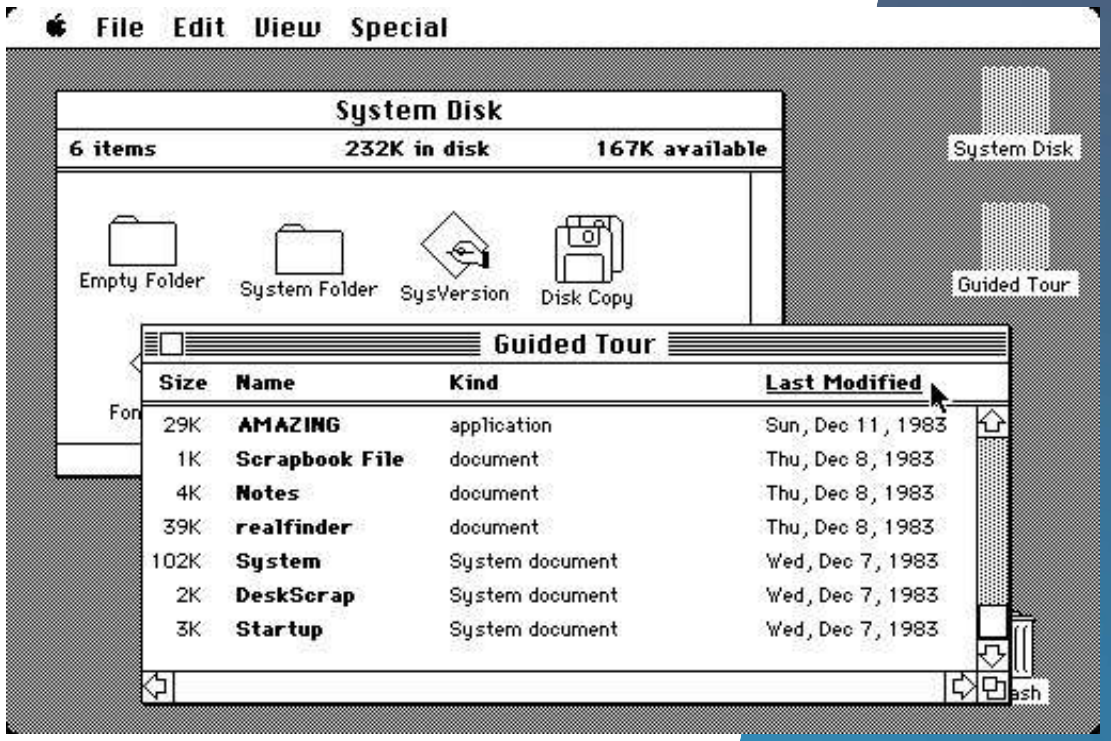


Defining UI

Dashboard
Lighting Environments
93°F
Baltimore
Mostly sunny
Wed, Aug 25, 3:41 PM
Notifications
Go
Overall Air Quality
SPEAKERS

Early Software Interfaces

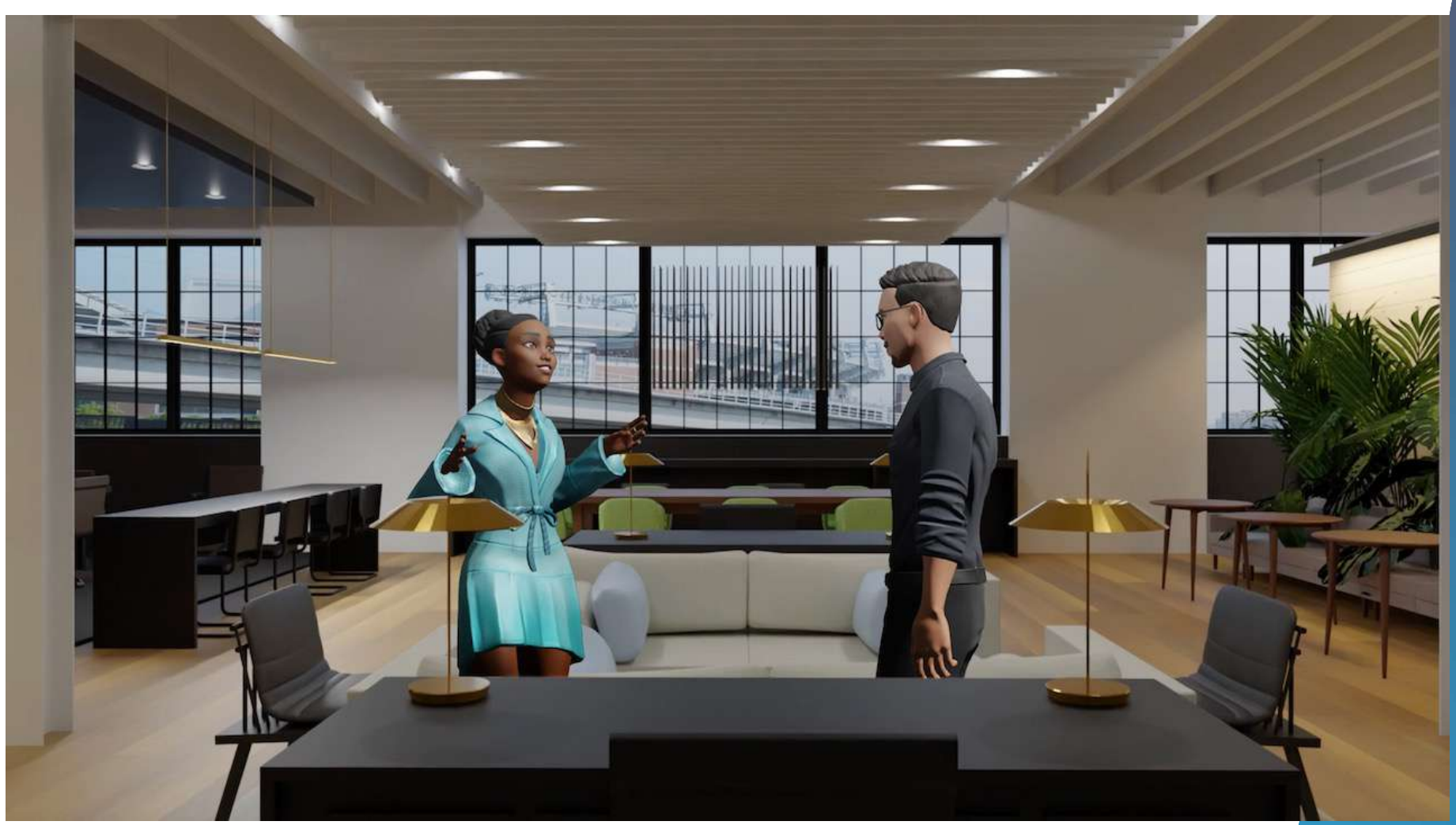
```
C:\>ver
DOSBox version 0.74. Reported DOS version 5.00.

C:\>debug /?
DEBUG version 1.29

DEBUG [[drive:][path]progname [arglist]]

  progname  file to debug or examine
  arglist   parameters given to program

For a list of debugging commands, run DEBUG and type ? at the prompt.

C:\>debug zerodos.exe
-r
AX=FFFF BX=FFFF CX=FE20 DX=0000 SP=0200 BP=0000 SI=0000 DI=0000
DS=06CB ES=06CB SS=06CB CS=06CB IP=0000 NV UP EI PL ZR NA PE NC
06CB:0000 CD20              INT     20
-g

Program terminated normally (0000)
-q

C:\>
```



How Humans Experience the World

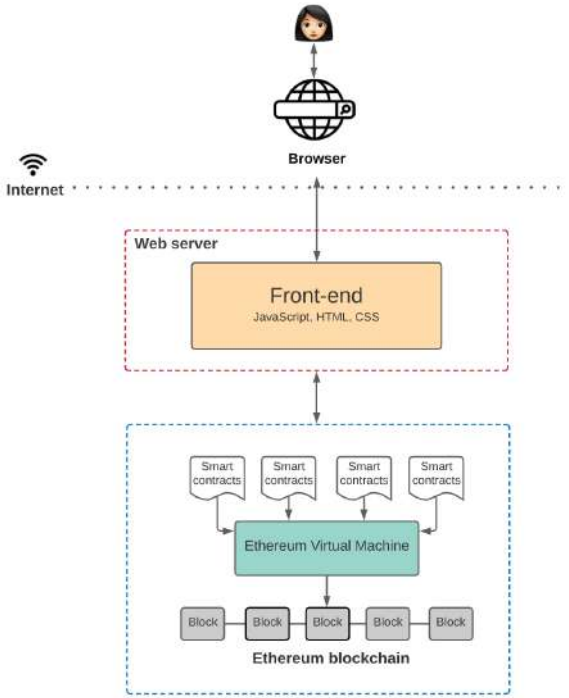
Air Quality
Excellent
98
Temperature
70.11 °F
Humidity
20.66 %
TVOCS
174.84 ppb
CO2
556.00 ppm
PM 2.5
70.11 ug/m3
Noise
58.46 dB
Lighting
Medium
H
M
L
Down Lights
80
Floor Lights
80

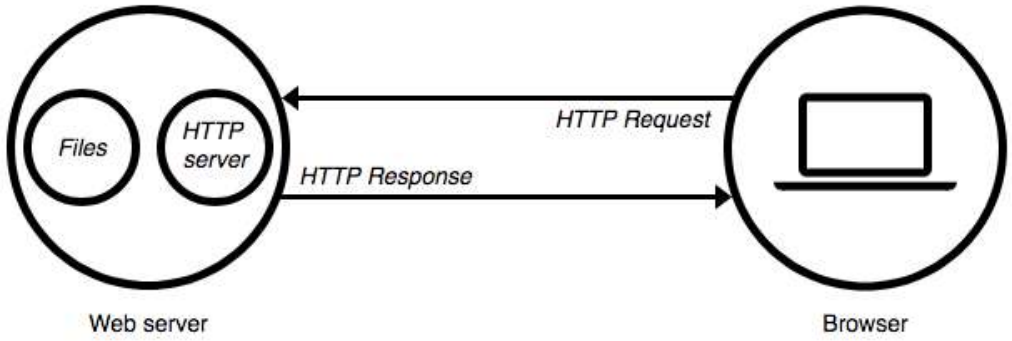
Pre-Pandemic Working Models



IoT as a Bridge

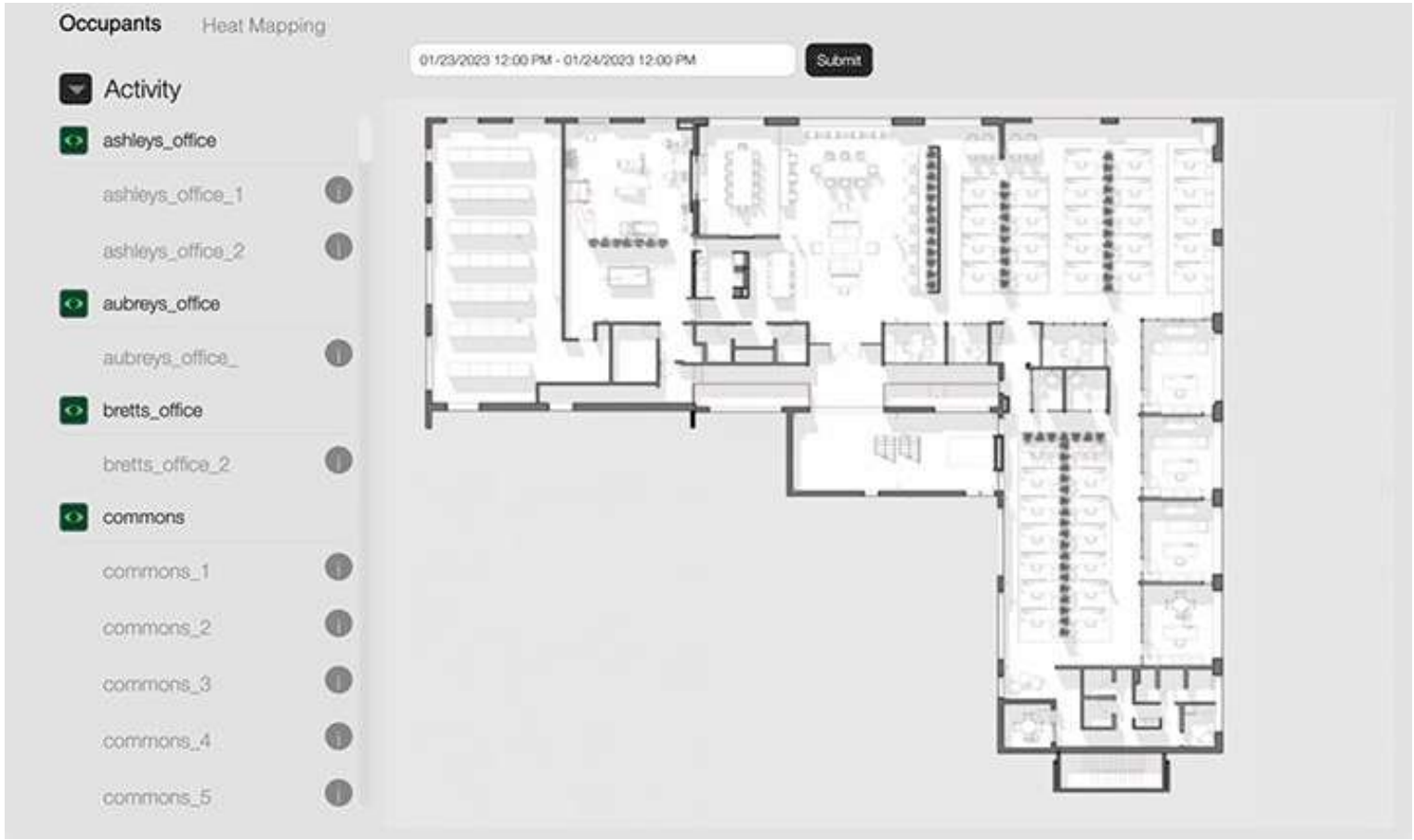
Metaverse Infrastructure





Assets and Data in the Digital Twin

Learn from Your Data



Investing in the Human

Lighting Demo Use Case

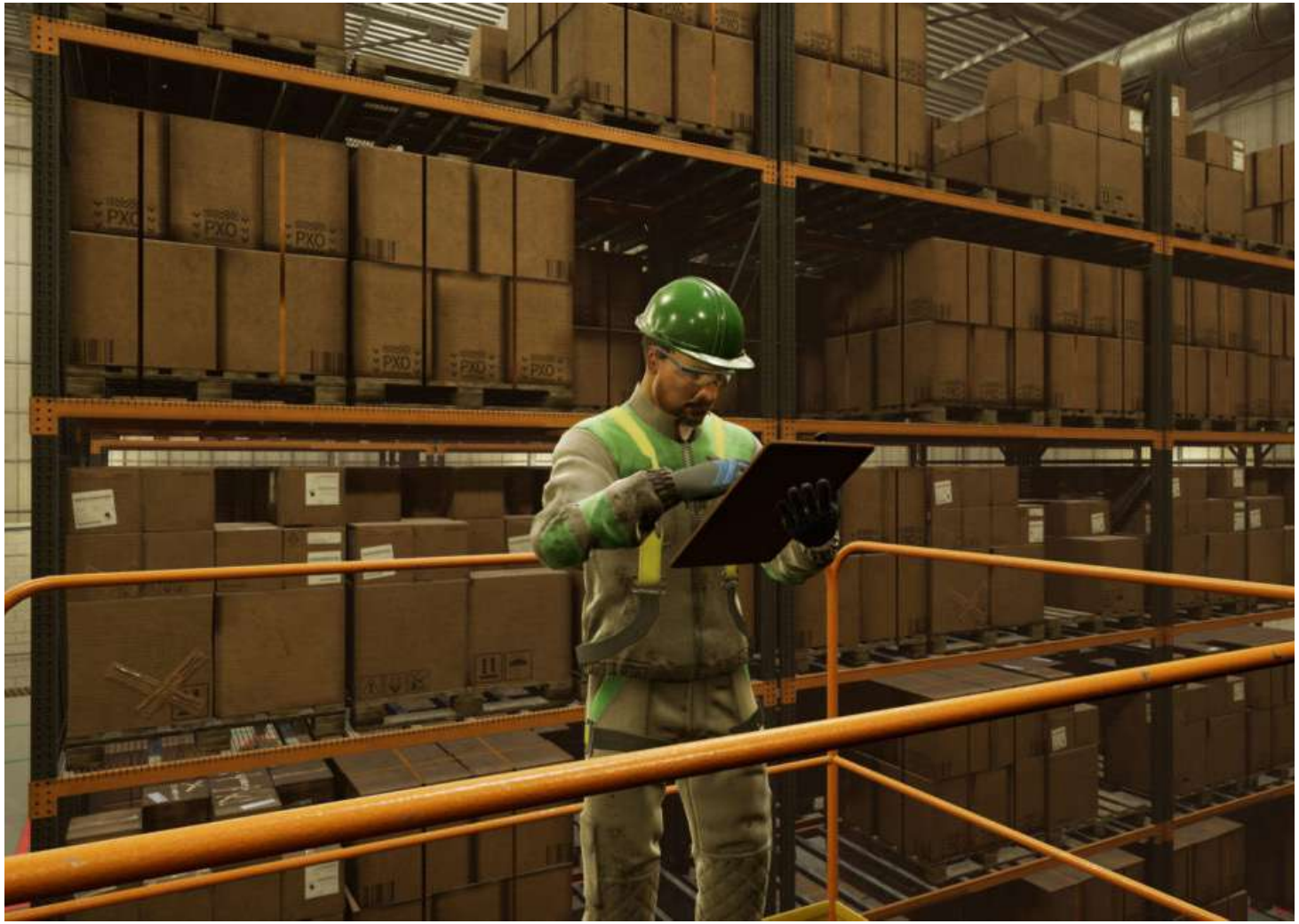
Office Space Use Case

Inter-Office Use Case

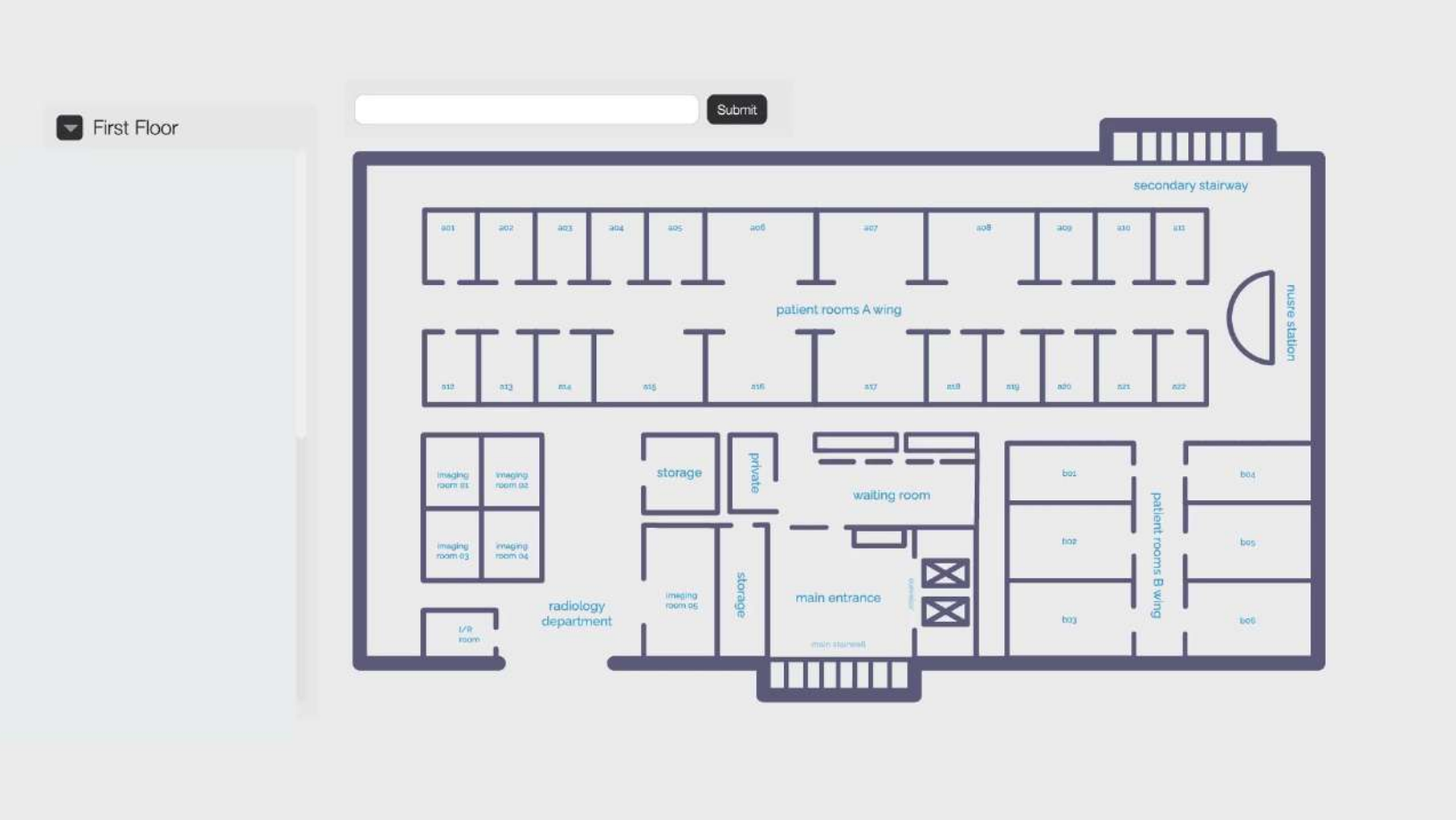
Showroom Use Case

E-Commerce Use Case

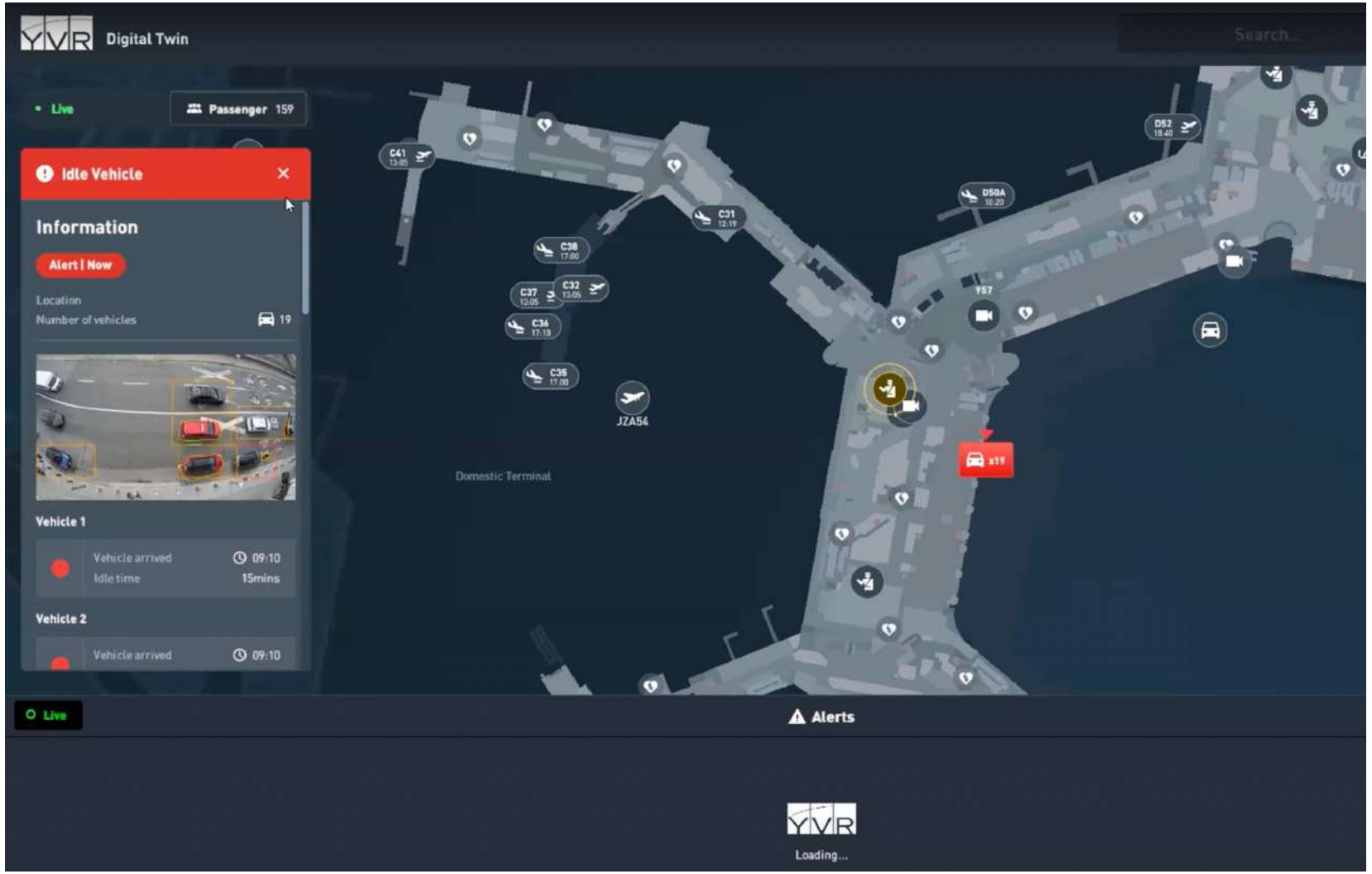
Warehouse and Distribution Use Case



Healthcare Use Case



Vancouver Airport



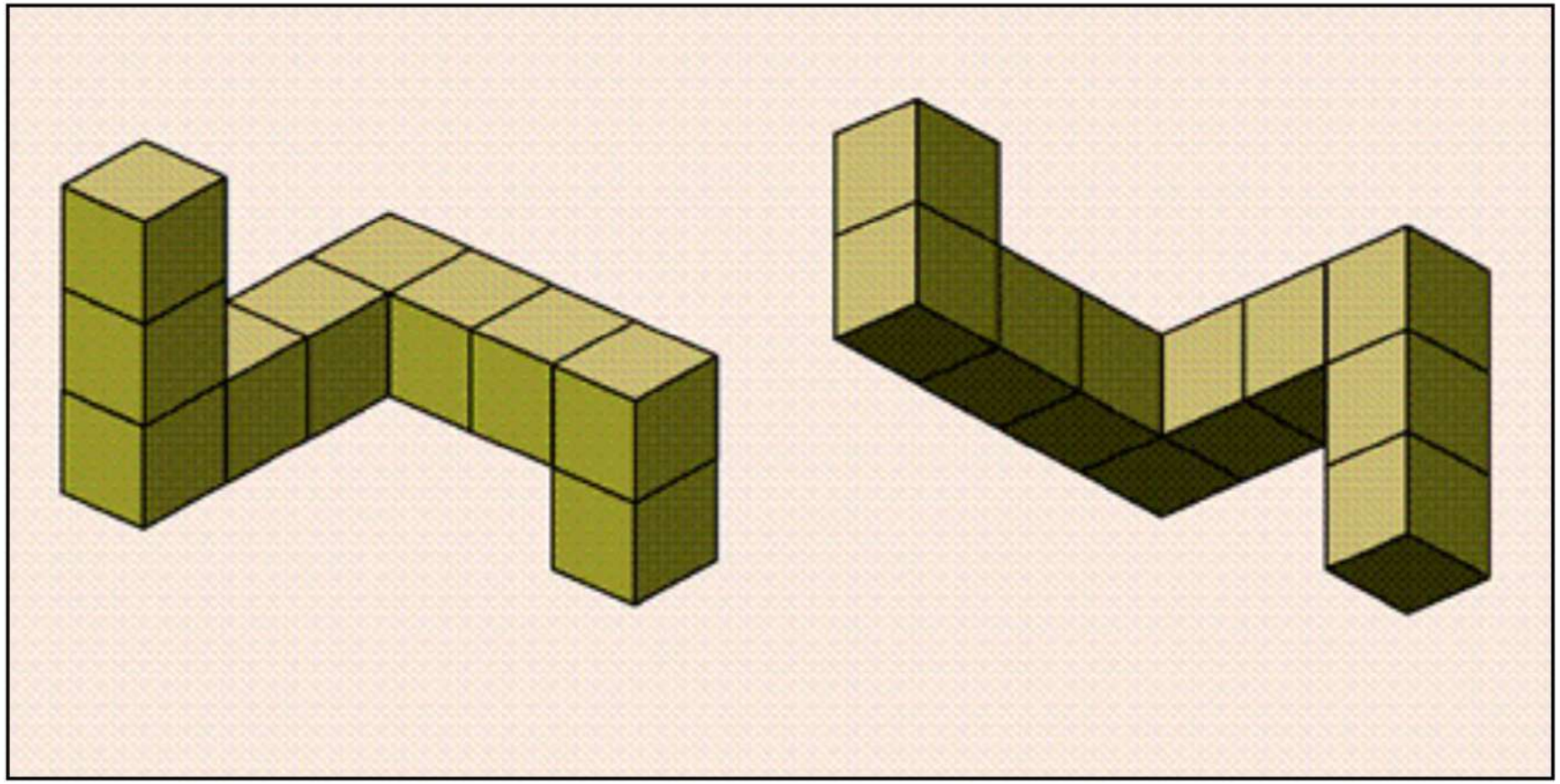
Digital Twins & the Metaverse: ROI

Tangible ROI

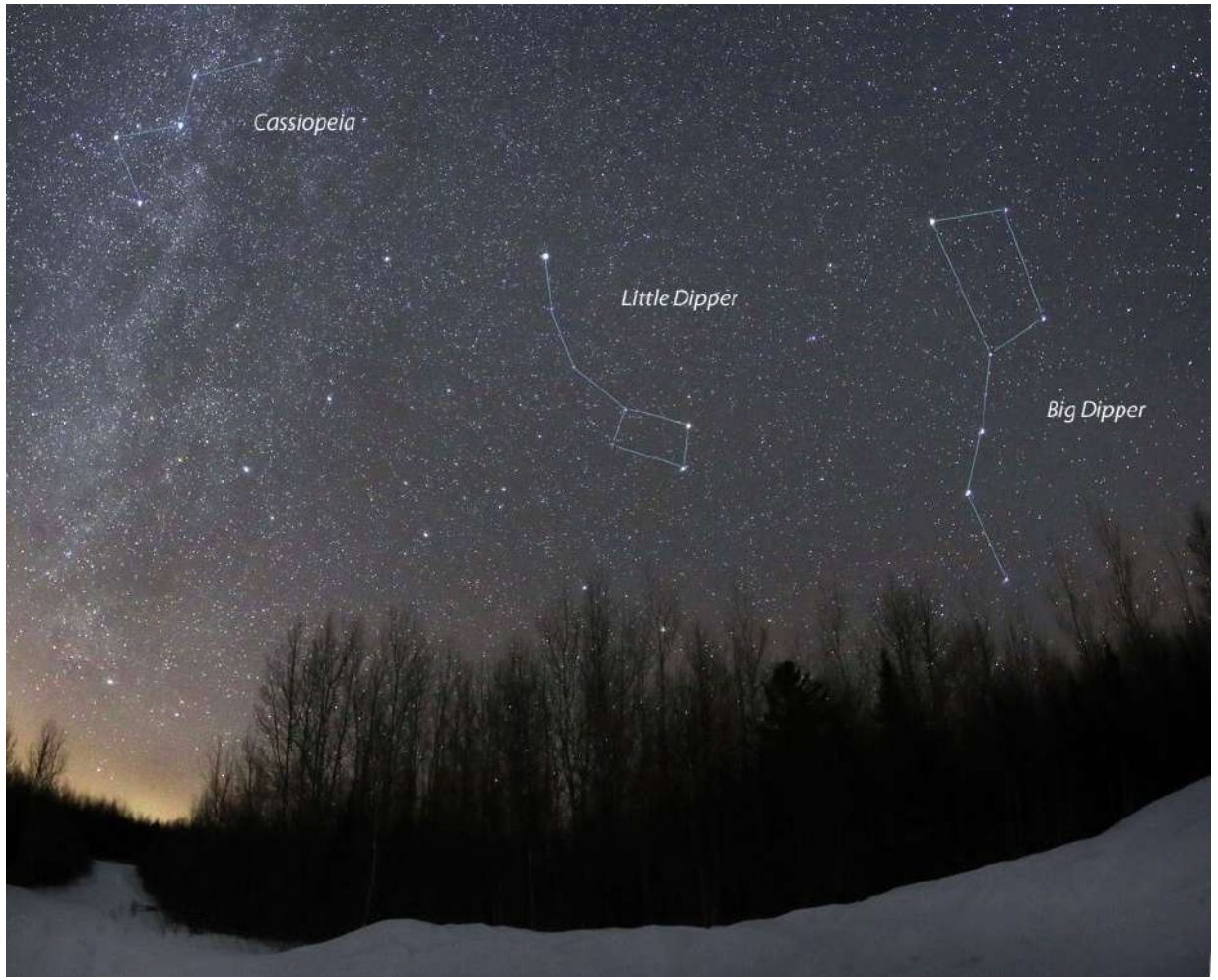
Brand Equity and Association

Emotional Tagging in the Digital World

Spatial Intelligence



Intelligent Buildings and Awareness



Guidance Through Digital Transformation

Digital Environments Protect the Planet

Q&A

This concludes The American Institute of Architects Continuing Education Systems Course