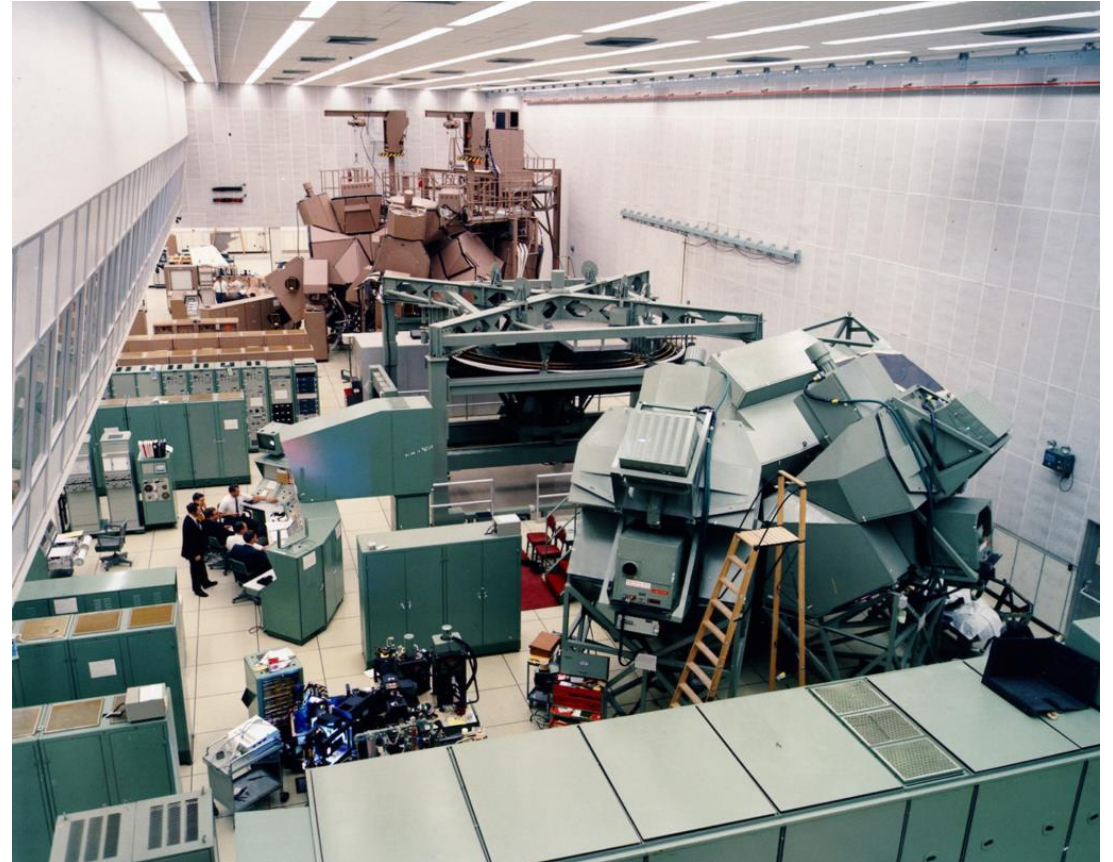




Digital Twin

First Digital Twin

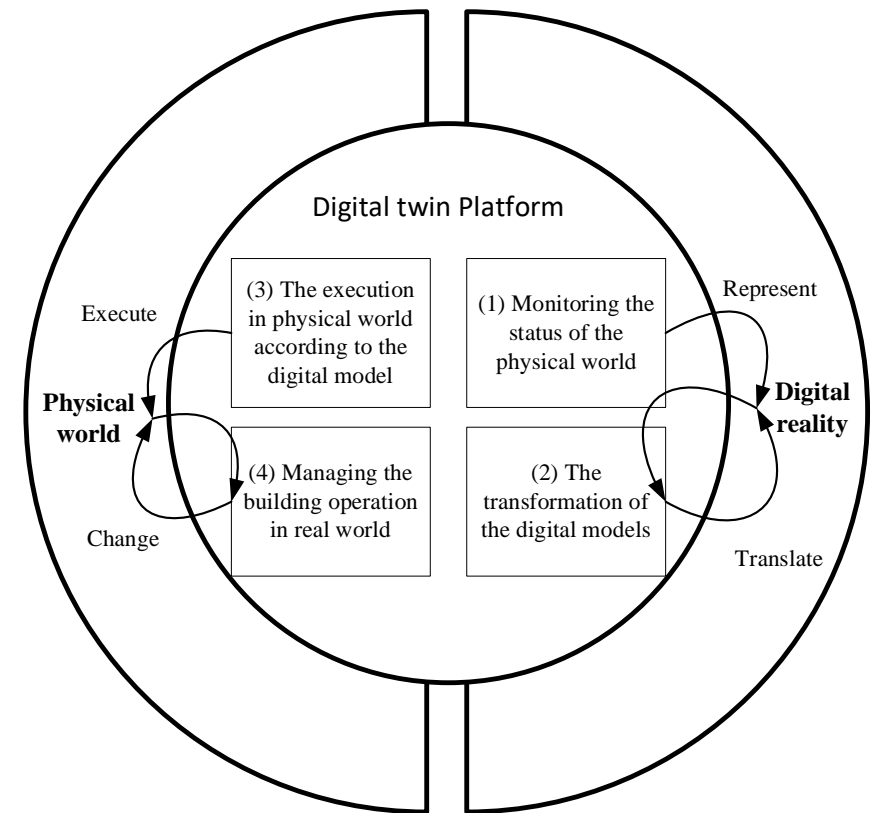
Apollo 13: The First Digital Twin – Apr 1970



Modern Digital Twin

Most modern digital twins involve a remote physical asset that is connected to the digital model through a continuous stream of data. This connection is used to update the computer models in response to changes in the real-life object. Some characteristics include:

- **Physical:** represent physical assets
- **Connected:** feedback of data from the physical asset
- **Adaptable:** flexible enough to react to changes in the physical asset.
- **Threaded:** multiple interacting models (connected many)



Types of digital twin

Product Digital Twins: Using digital twins for efficient design of new products

Production / Process Digital Twins: Using digital twins in manufacturing & production planning

Performance Digital Twins: Using digital twins capture, analyze, and act on operational data

Digital twins vs. simulations?

Under the hood

An example of smart building

- Watch [here](#)

Implementations

Proprietary system

- Watch video [here](#)

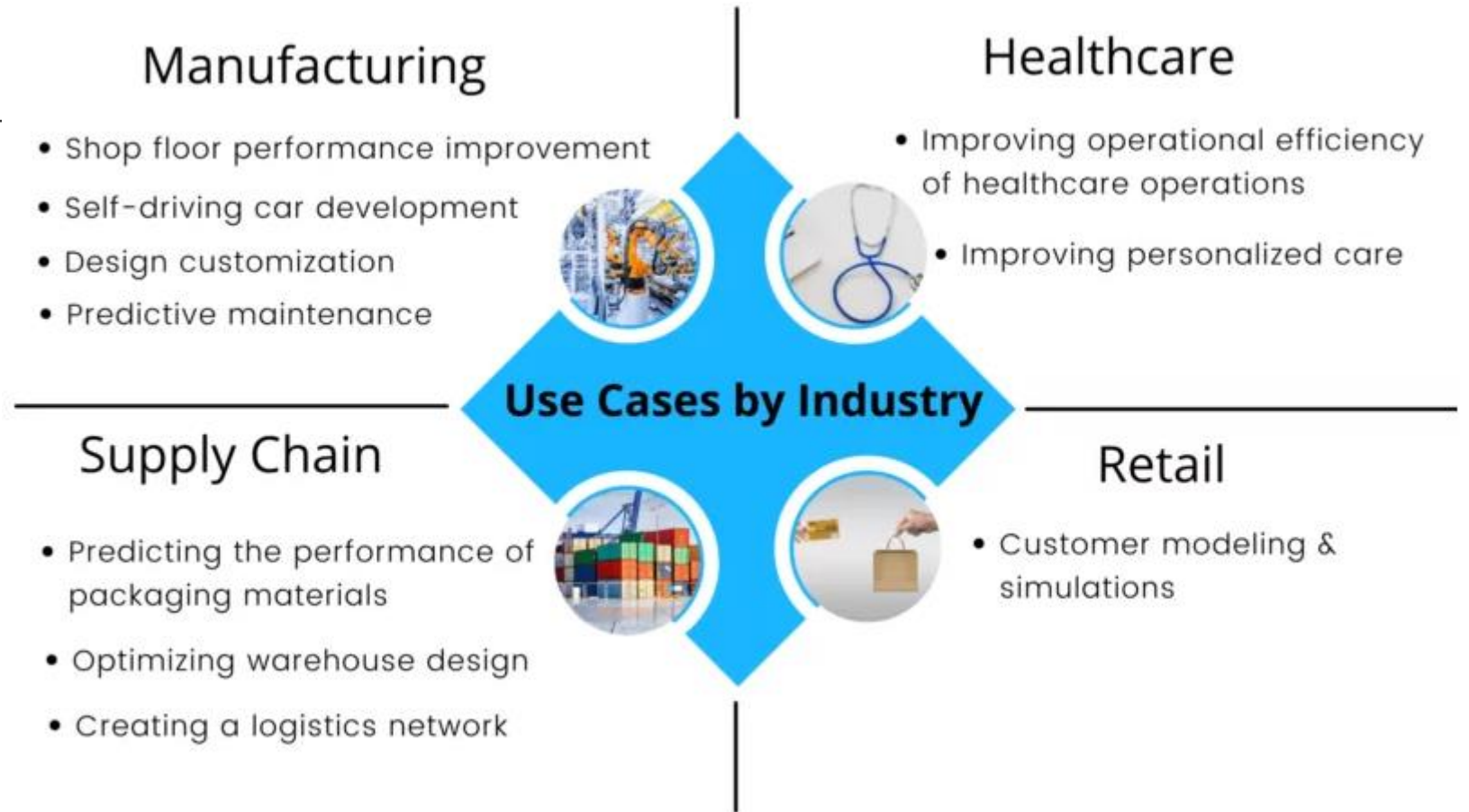
Unreal Engine development

- Watch video [here](#)

Web-based development (JavaScript)

- Watch video [here](#)

Use cases



<https://research.aimultiple.com/digital-twin-applications/>

Playable demo

Give a go [here](#)

Questions
