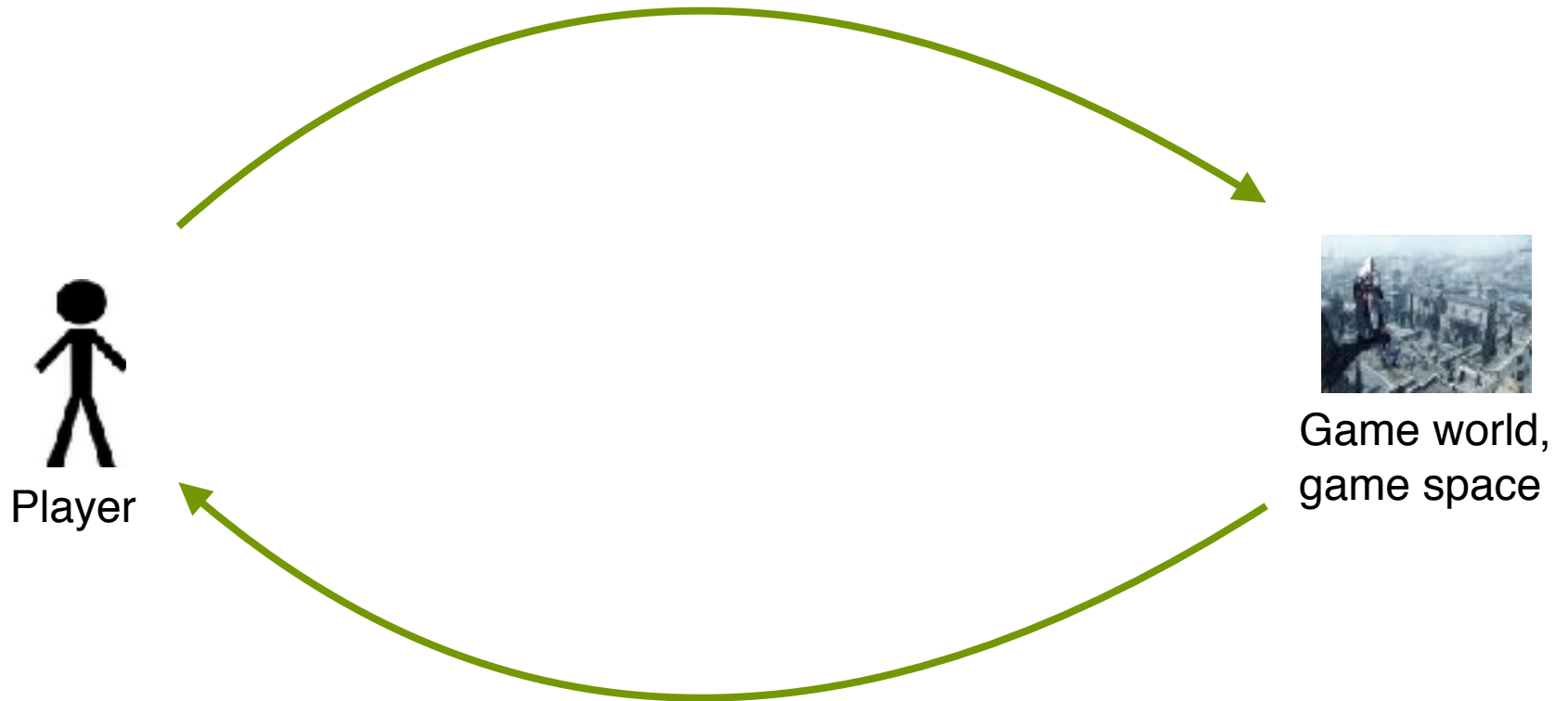


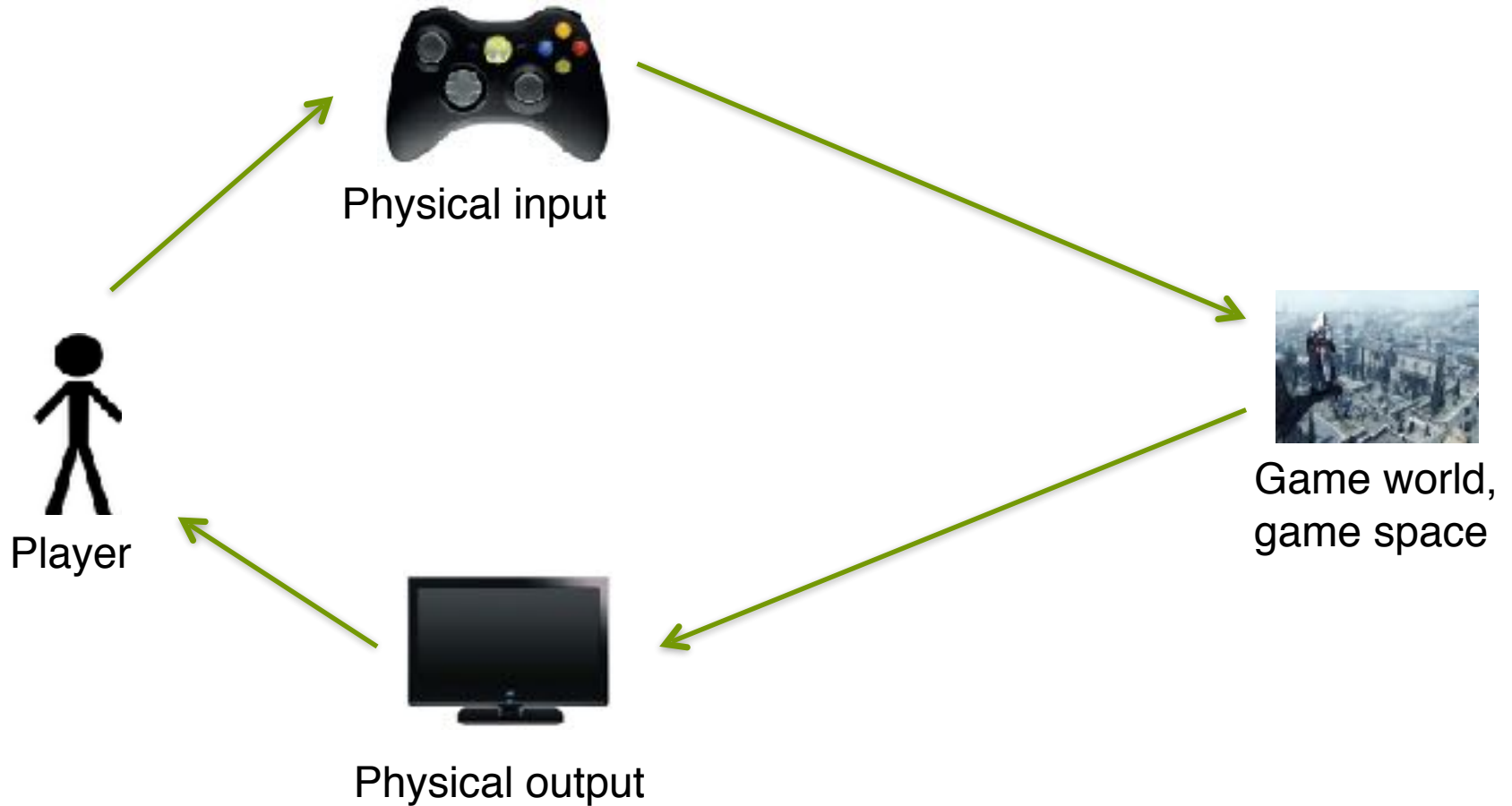
# GAME UI

CART 416  
RILLA KHALED

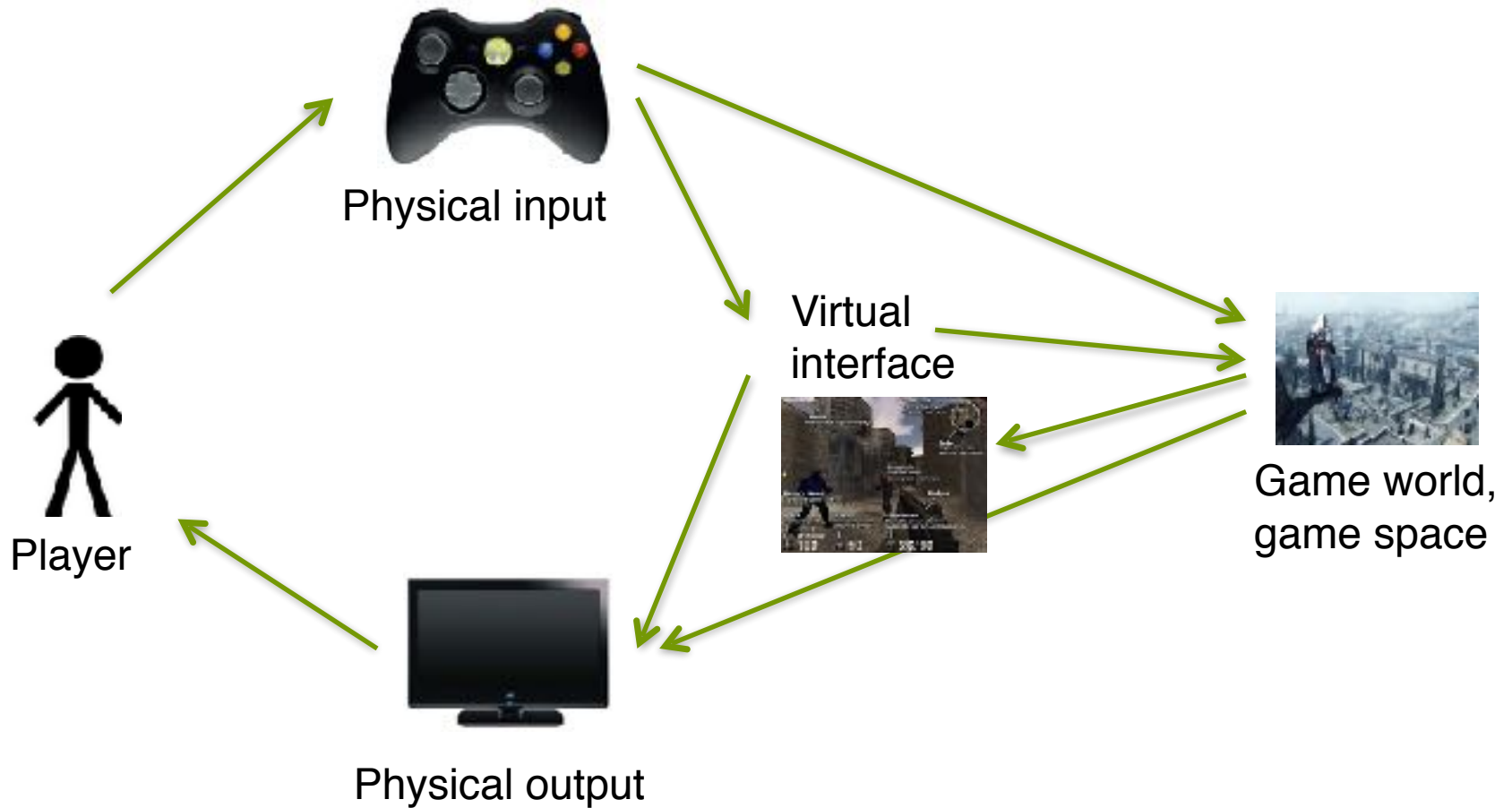
# FLOWS OF UNDERSTANDING



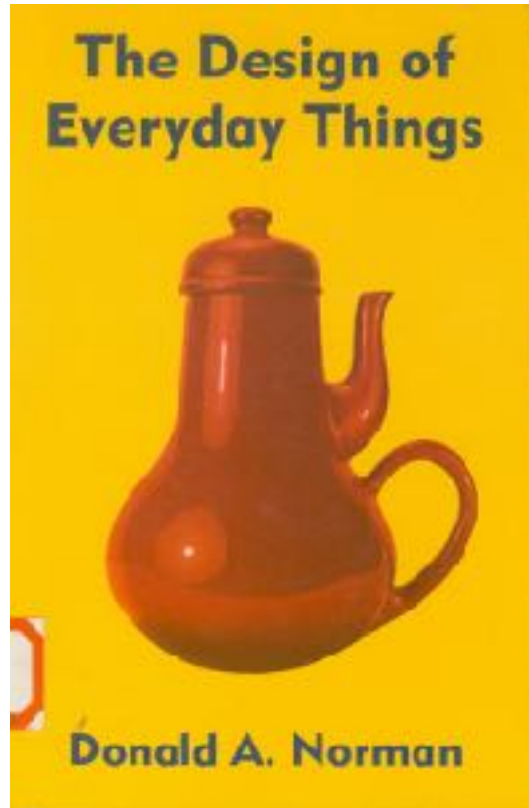
# FLOWS OF ACTION AND UNDERSTANDING



# FLOWS OF ACTION AND UNDERSTANDING



game UIs are  
**central**  
to action and  
meaning making



**DONALD NORMAN**

# AFFORDANCES

- perceived and actual properties of a thing
- properties that determine how the thing could be used
- always relative to an agent, e.g. a three-inch-wide beam affords performing back flips for a gymnast but not for me



# AFFORDANCES





# MAIN PRINCIPLE OF AFFORDANCES:

## **RIGHT = EASY, WRONG = HARD**

- Each control should only do what it affords: it should be easy for the player to use the control the right way and hard for the player to use the control the wrong way
- Affordances are dependent not just on the object but also on the person (previous experience, culture, physical abilities)



# GAME UI REPRESENTATIONS

Is the representation visualized in the 3D game space?

NO

YES

NO

non-diagetic  
representations

spatial  
representations

Does the  
representation  
exist in the  
game world?

YES

meta  
representations

diagetic  
representations

# SPATIAL REPRESENTATIONS: THE SIMS



# DIAGNETIC REPRESENTATIONS: DEAD SPACE





# DIAGETIC REPRESENTATIONS: THE WITNESS



# META REPRESENTATIONS: MAD WORLD





# NON-DIAGNETIC REPRESENTATIONS: WOW



# FUNCTIONALITY PRESERVATION AND TRANSLATION

- avatar: what you look like
- organism: how you are able to act
- UI (or “organism interface”) is a virtual prosthesis
- make preserved functionality your main goal: functionality over aesthetics!
- enable the organism to operate in your game world, otherwise **all else will fail**



Gordon Freeman from Half-Life is in a technical sense just a pair of arms.