

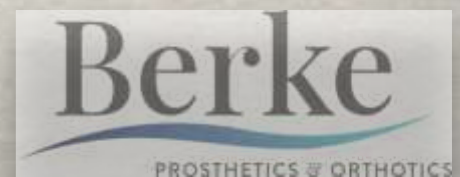
Issues of Human Interface design

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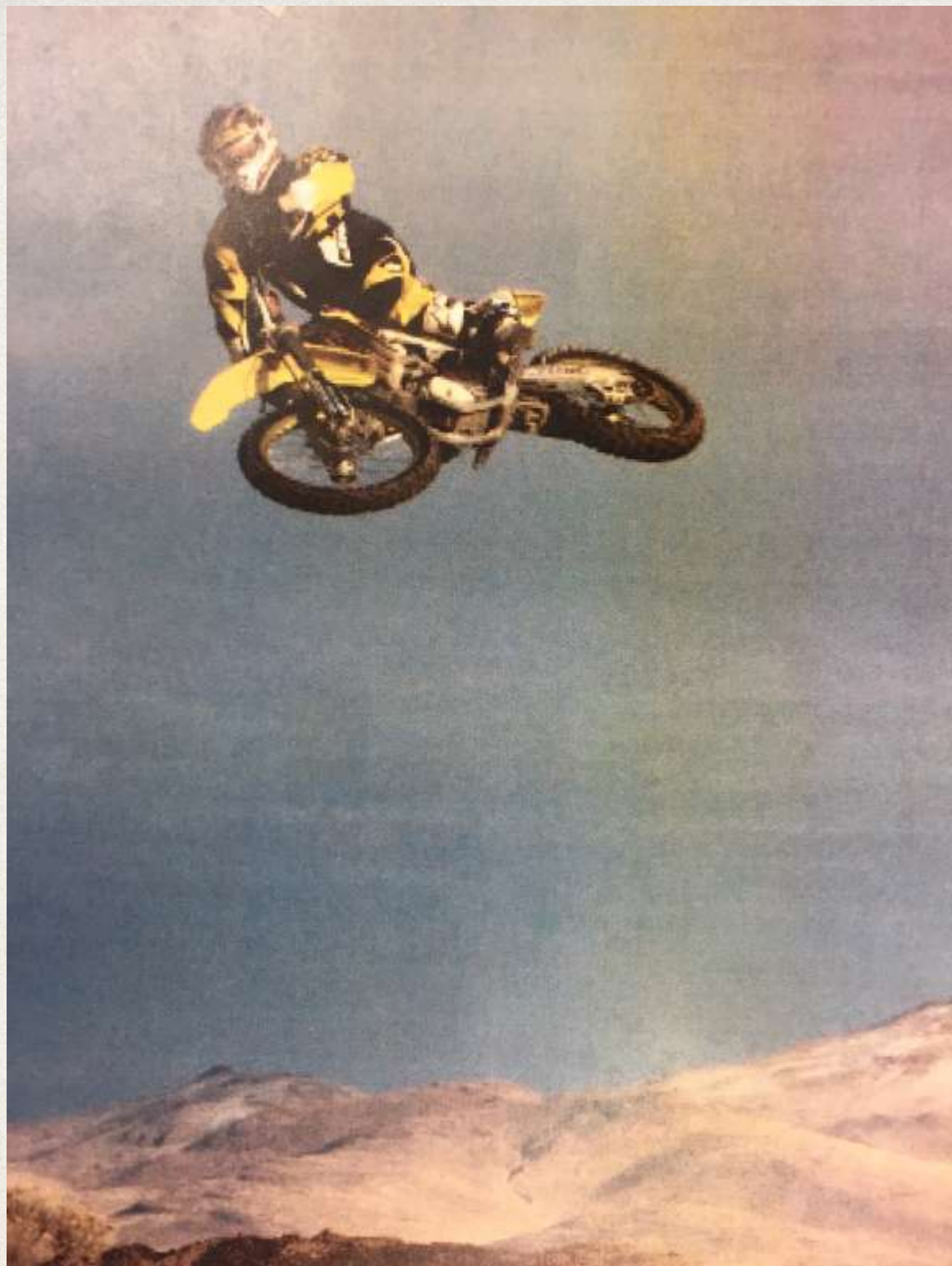
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SECTION ONE:

The older I get the less I know.









Stokes



ASSOCIATED PRESS



Better than human?

Section 2:

Designing for Humans

How do you design a
shoe?



Five C's

- Comfort
- Cosmesis
- funCtion
- Cost
- Cool



Better than Human?



Why are we so hell-bent on making people with amputations better than human, if we can't make able bodied people better than human??

How is a prosthesis made?

As we have gotten significantly better and faster at building products, the challenge has shifted. The challenge today isn't building products, but uncovering what to build.





Comfort

- ✱ Transference of pressure
- ✱ No “noxious” stimuli (noise, vibration, etc)
- ✱ Heat
- ✱ Nuisance factor
 - ✱ easy to put on and take off
 - ✱ not too bulky
- ✱ Weight
- ✱ Sensitivity of skin or nerve

Comfort

- What makes something ^{UN-}comfortable?

Comfort is elusive

- ✿ What may be “comfortable” one minute may not be the next.....

funCtion

- Is it a device that reliably does what it is intended to do?

funCtion

- ✿ Is there a device that can do everything?





Cosmesis

- **What is cosmetic?**



Cosmesis

- ✿ How do we perceive ourselves?
- ✿ How do changes to our body affect our perception of cosmesis?

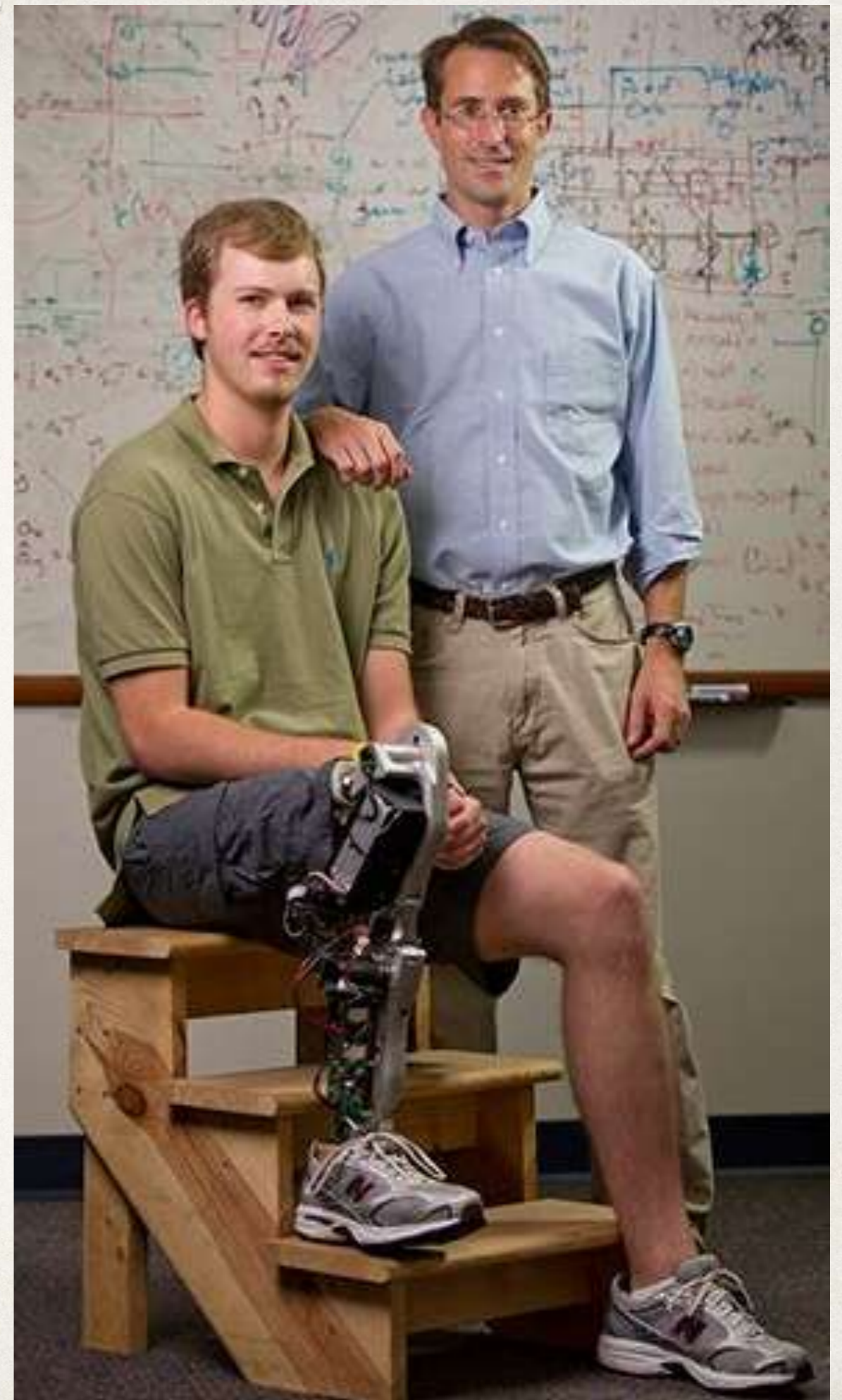






Cost

- What is it worth to the consumer and...
- If it costs way more, does it provide a proportional improvement in comfort, function, cosmesis, or cool?



What does a prosthesis cost AND what do we get paid?





cool



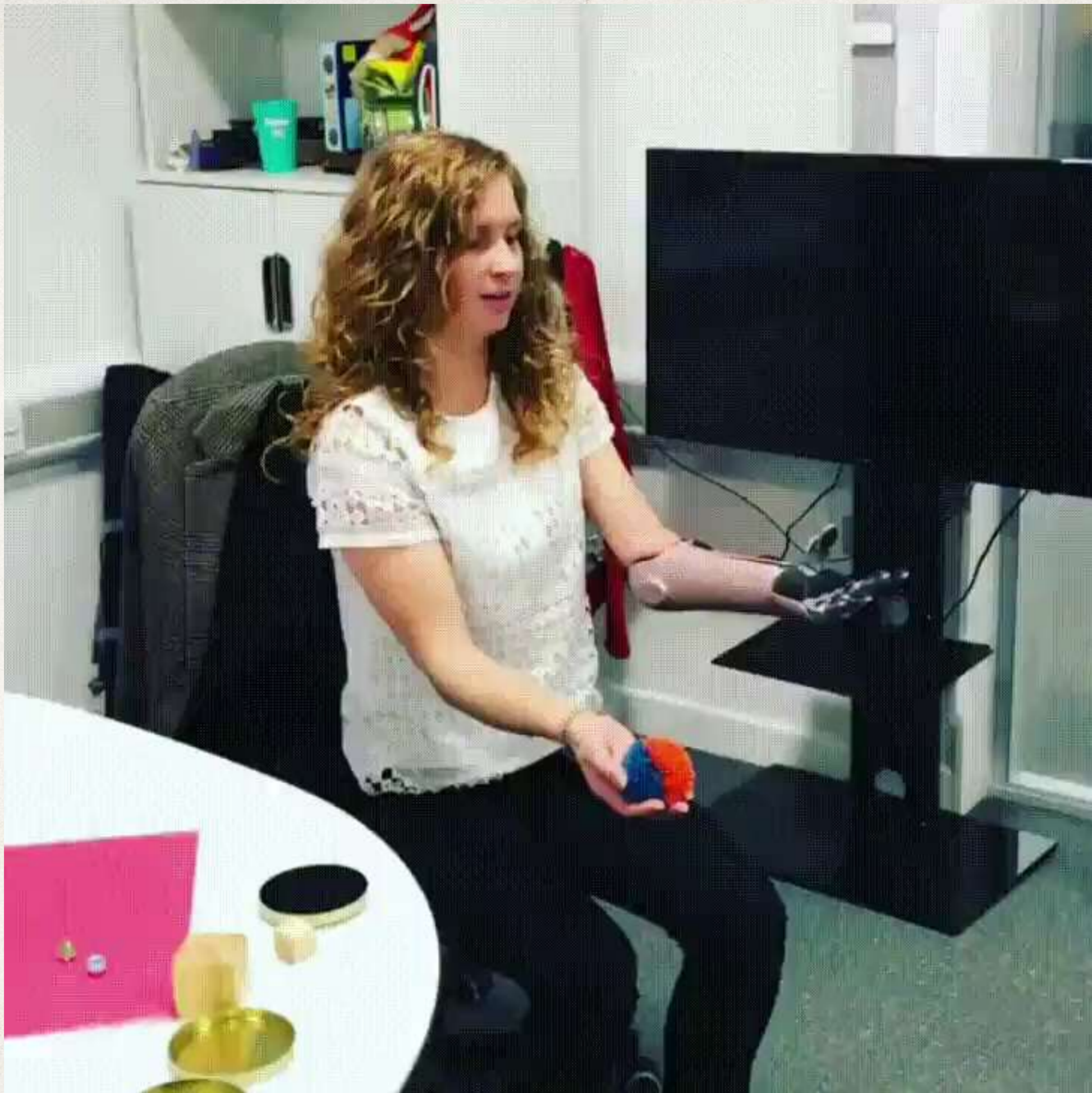
“Cuz I deserve it”



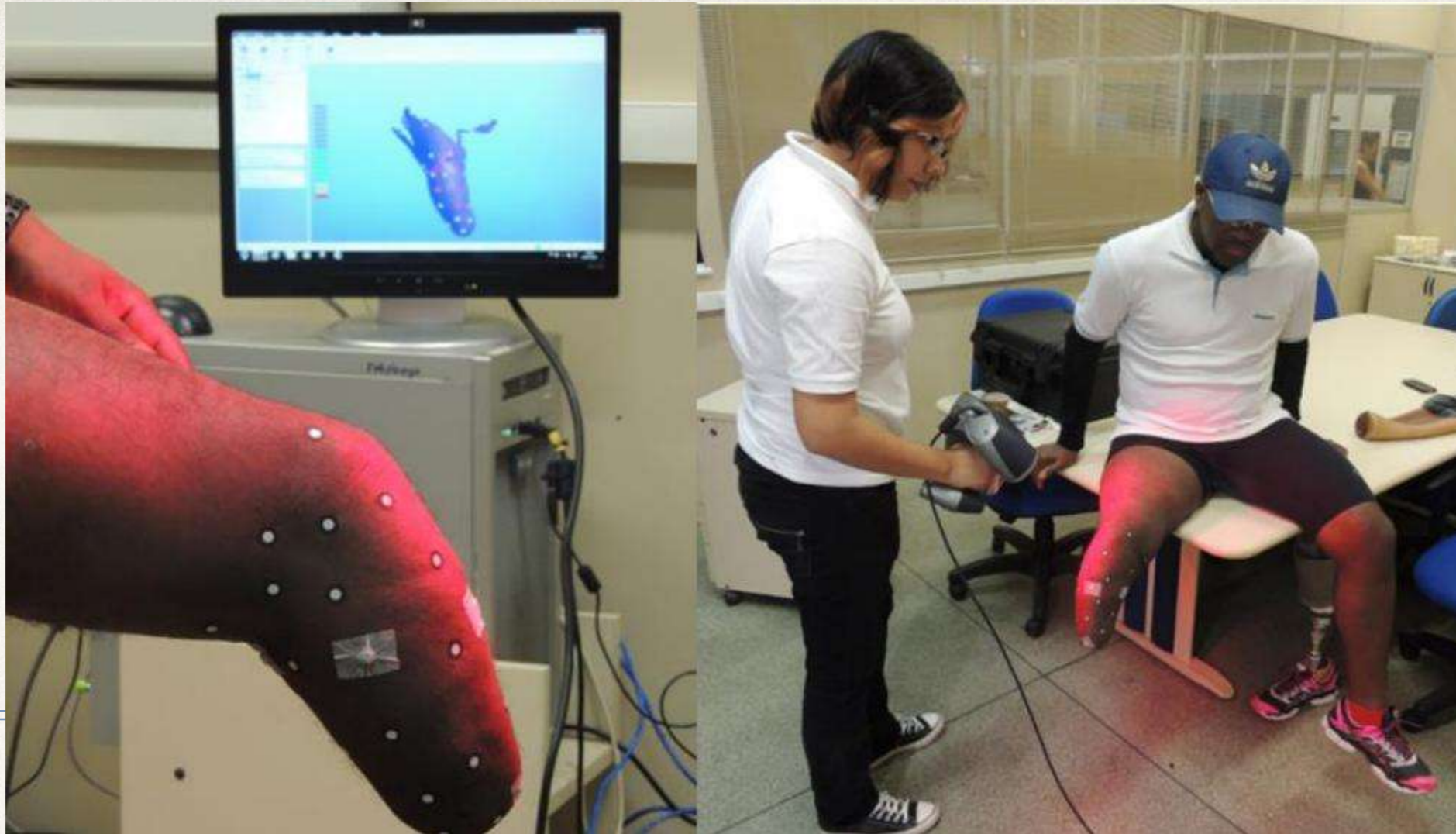
bionic







[Play video](#)



I give you permission to be skeptical with your optimism

How do “things”
interact with
humans?

glasses



Regular glasses

Self Adjusting

Comfort



Function



Cosmesis



Cost



Cool



SECTION THREE:

- ❖ There are people everywhere that use sticks to eat, perhaps we should 3-D print them forks.

SECTION THREE:

✿ Just because we CAN, doesn't mean
we SHOULD



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CABINET

PORTRAIT

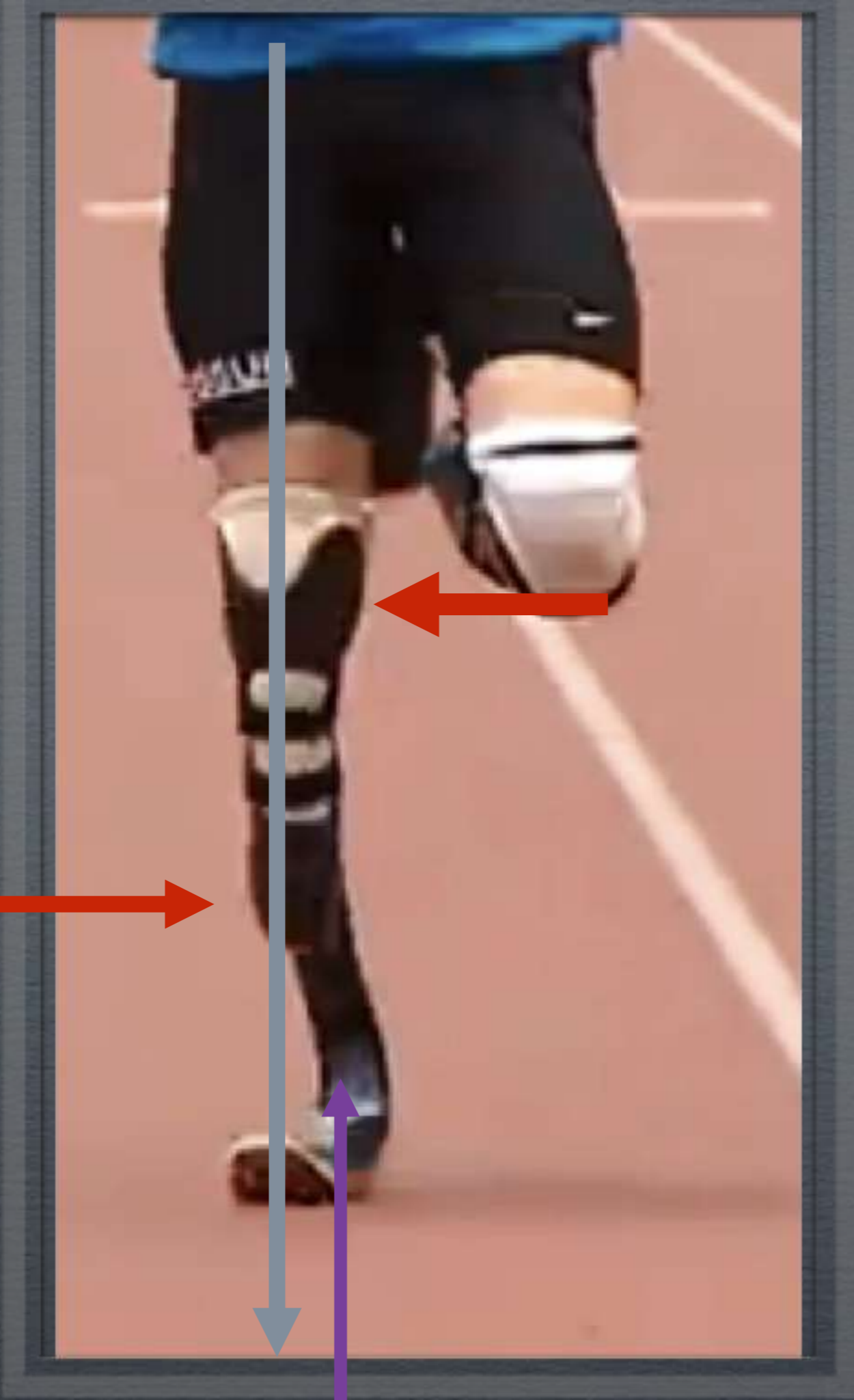
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Bowman

OTTAWA, O.C.

Total Contact/ Total Surface Bearing





A prosthesis must fit intimately enough to comfortably support the limb during high loading, not bother the soft tissues and bone and transfer motion from the human to the device with extreme efficiency.



SECTION FOUR:

- ❖ What ya can't see on the X-ray is that she is a flaming schizophrenic.







Total Contact/ Total Surface Bearing

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Service -



SECTION FIVE:

- ❖ It is hard when the expectation of the patient is greater than the design can provide.







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You can't start with the technology and try to figure out where you're going to try to sell it.

Steve Jobs



HUMAN?

