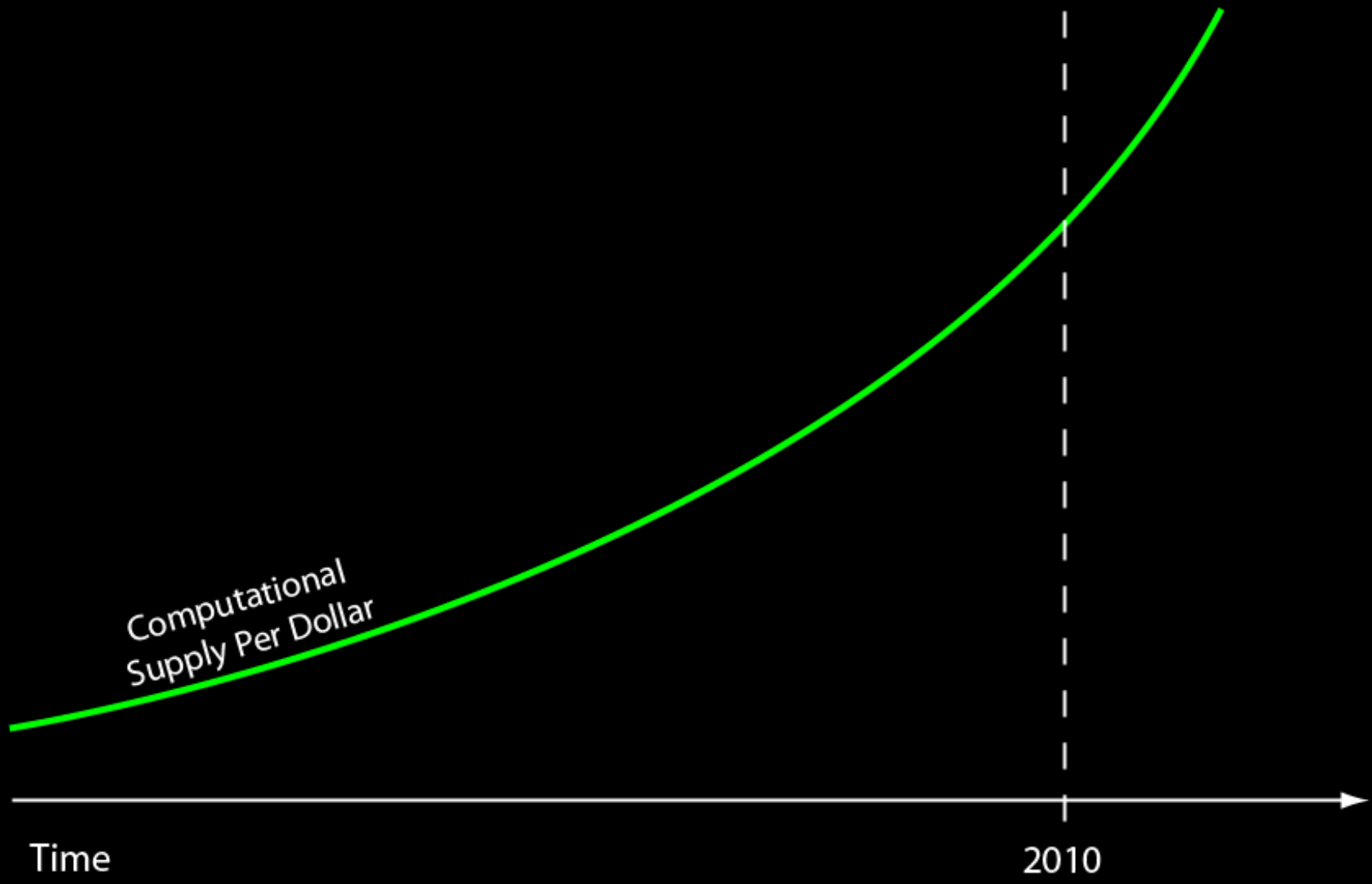
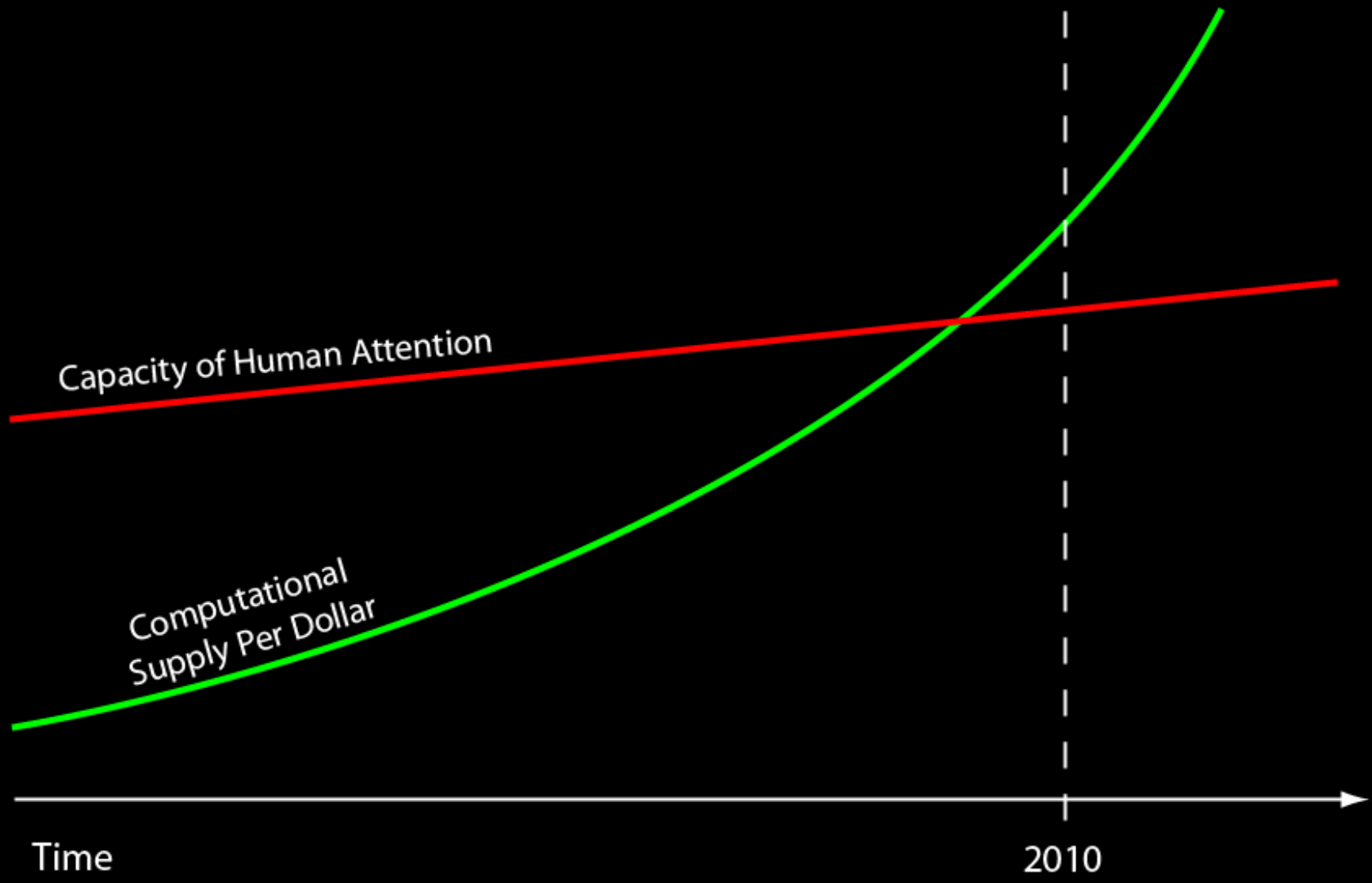
Microsoft® Research
Faculty Summit 2010

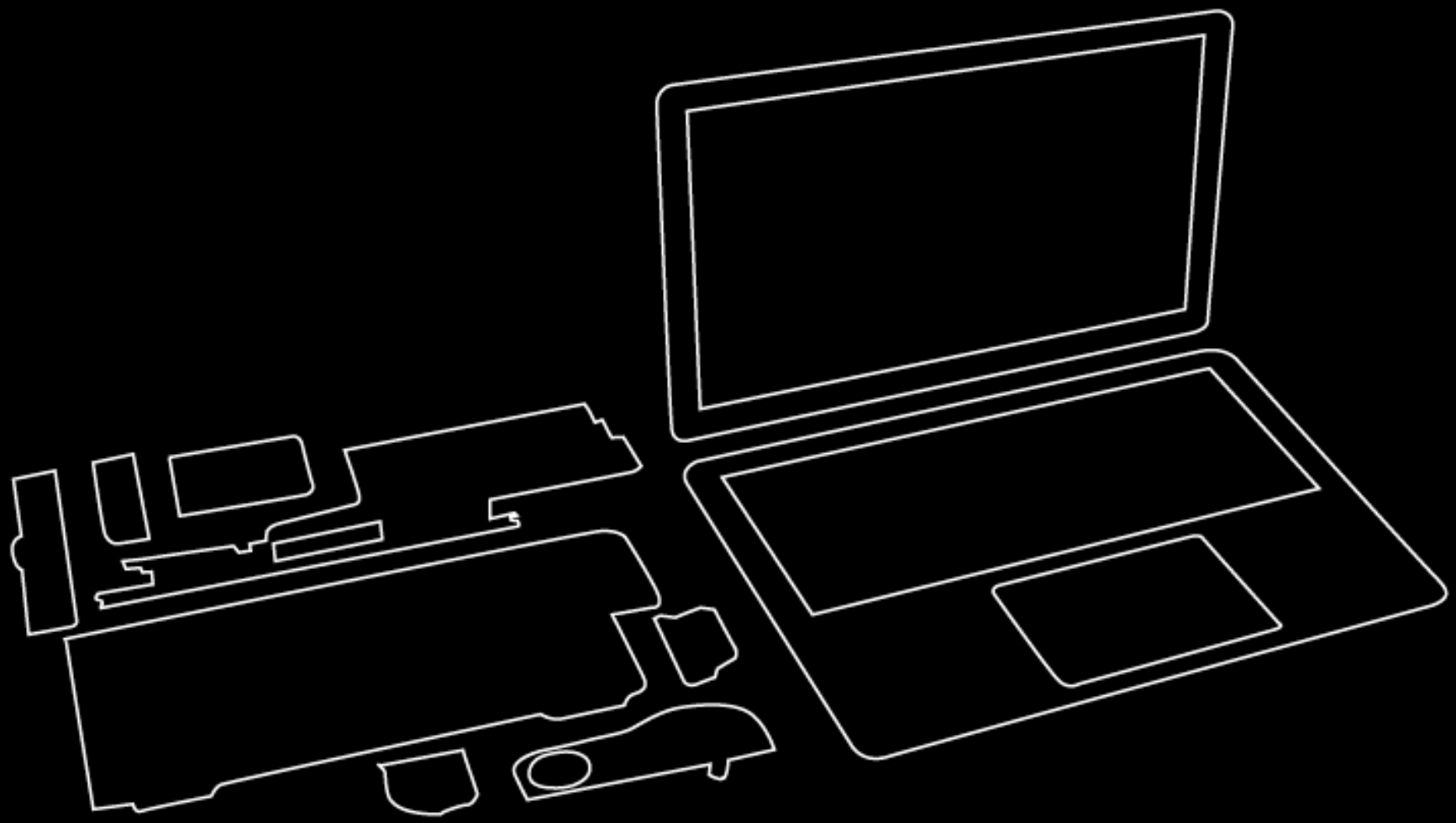
"Natural" is not in the technology

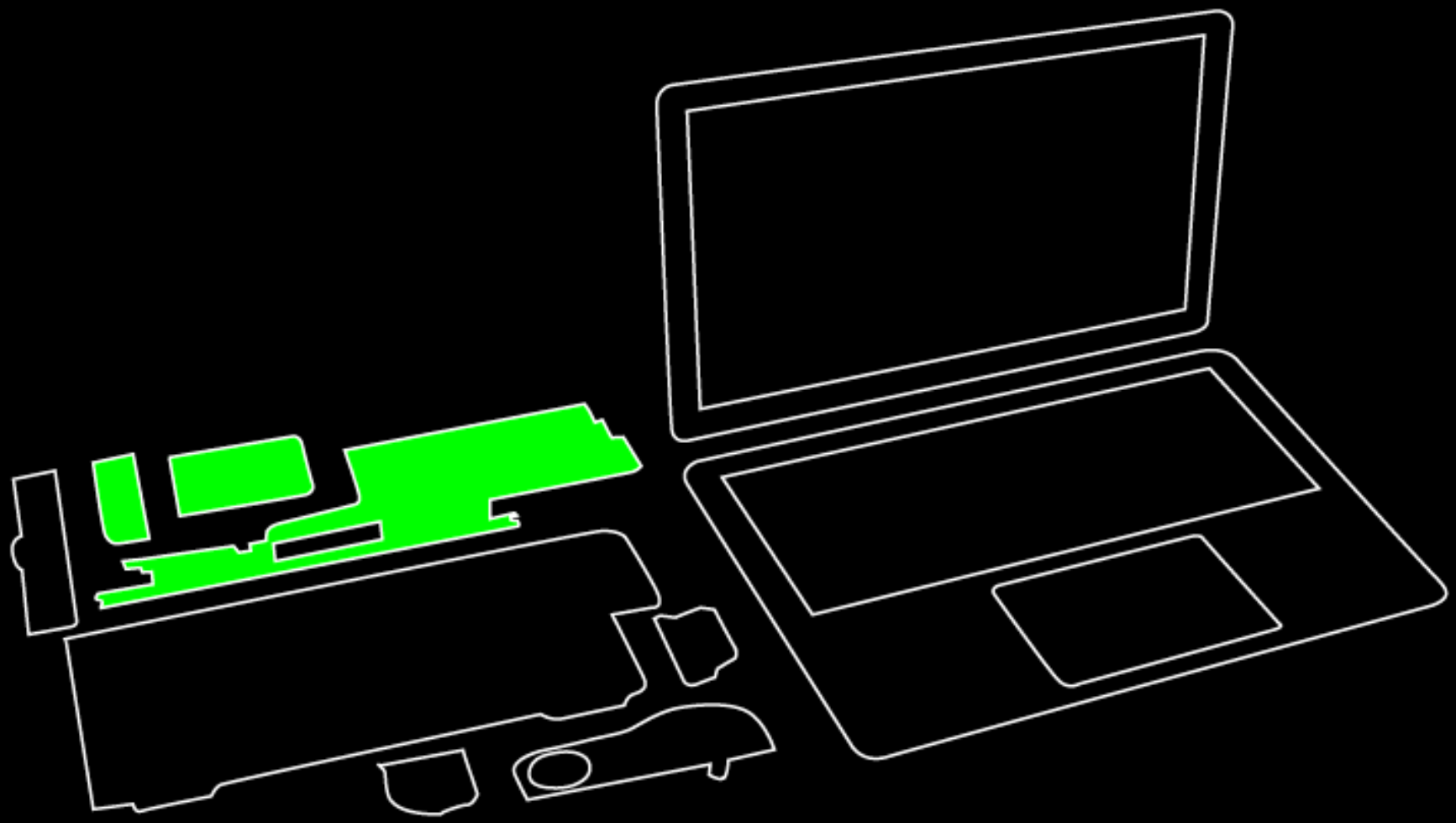
Johnny Chung Lee
Researcher
Microsoft – Applied Sciences Group

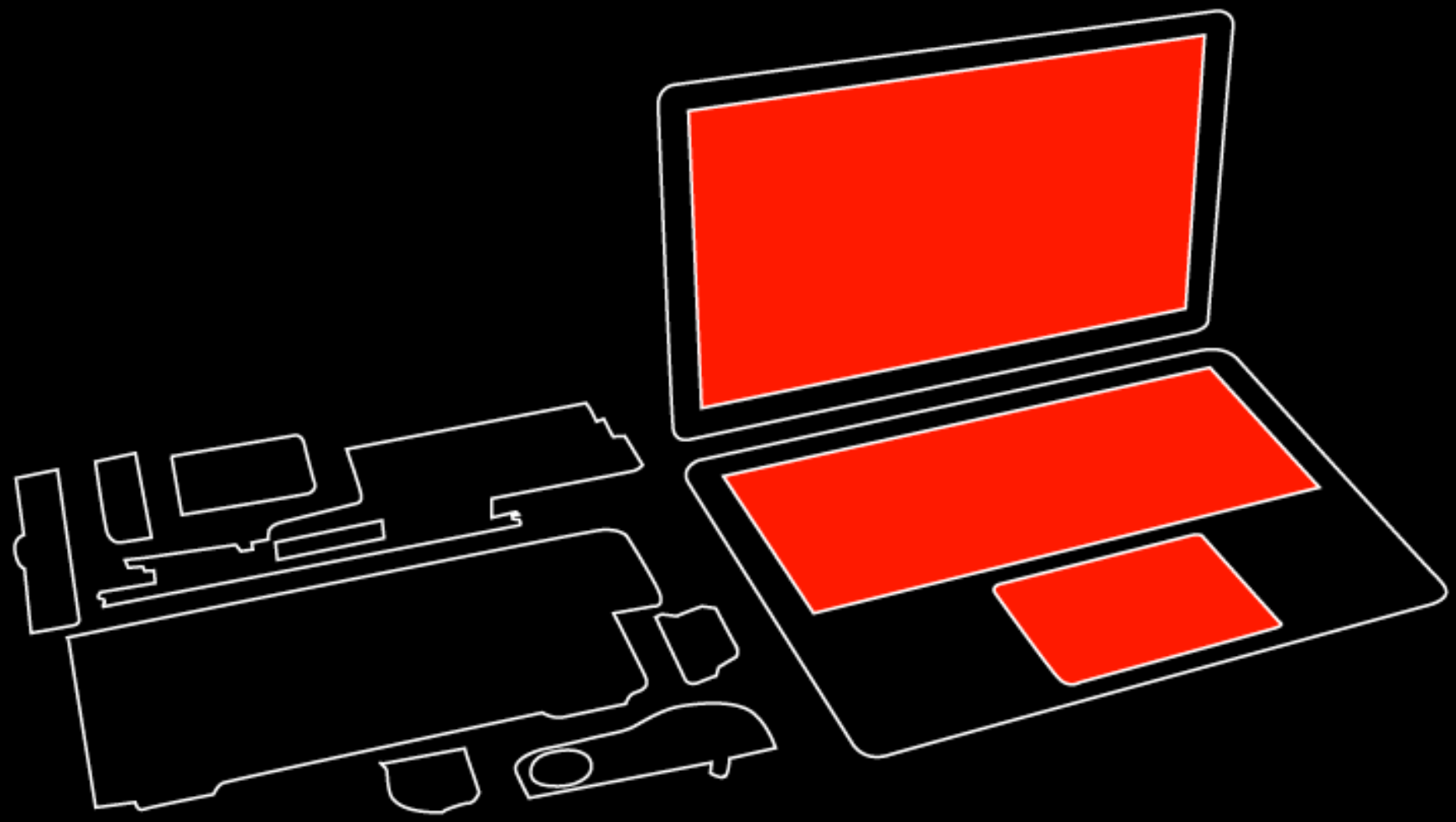
Moore’s Law

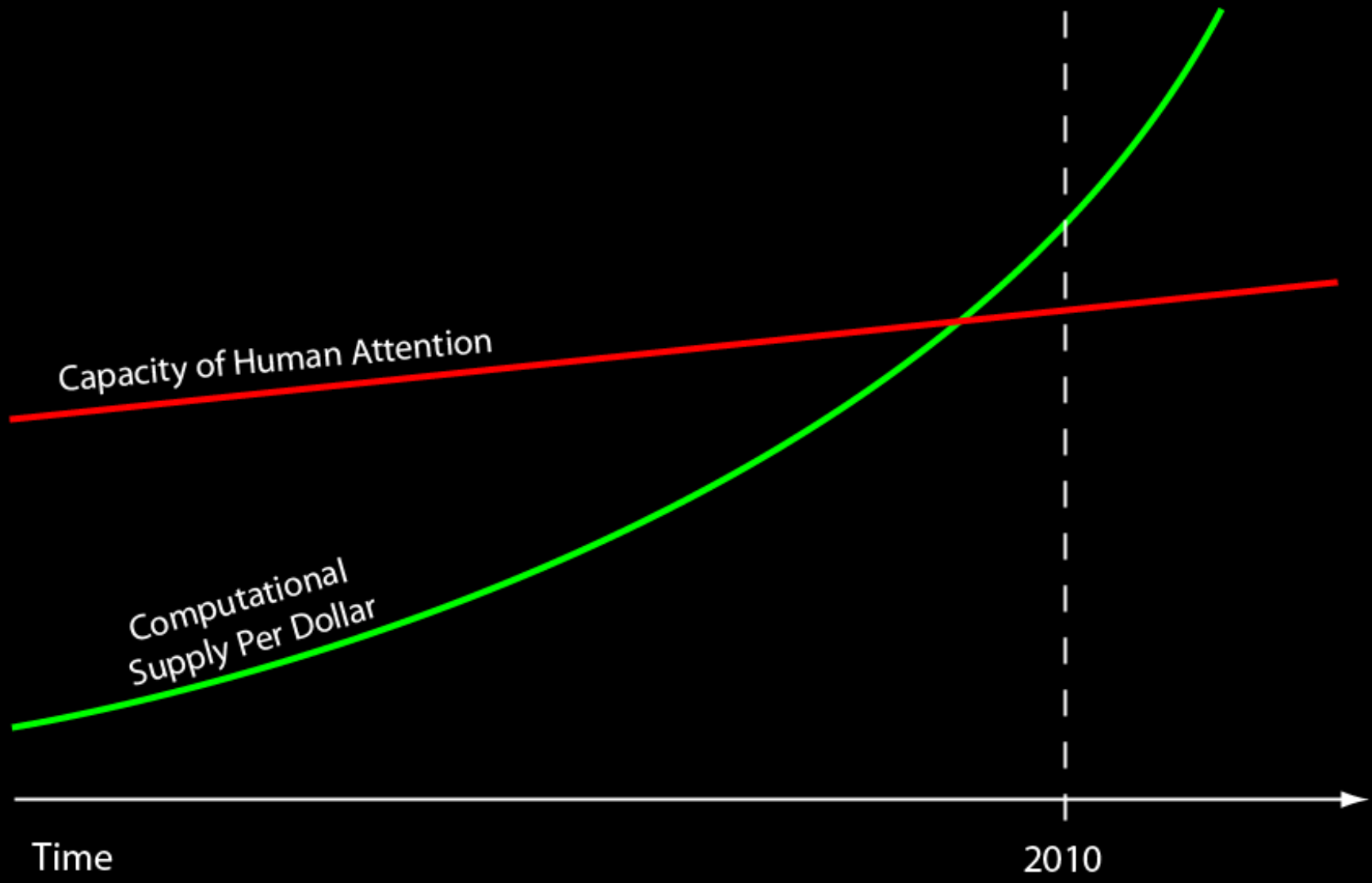

Computational
Supply Per Dollar
Time
2010

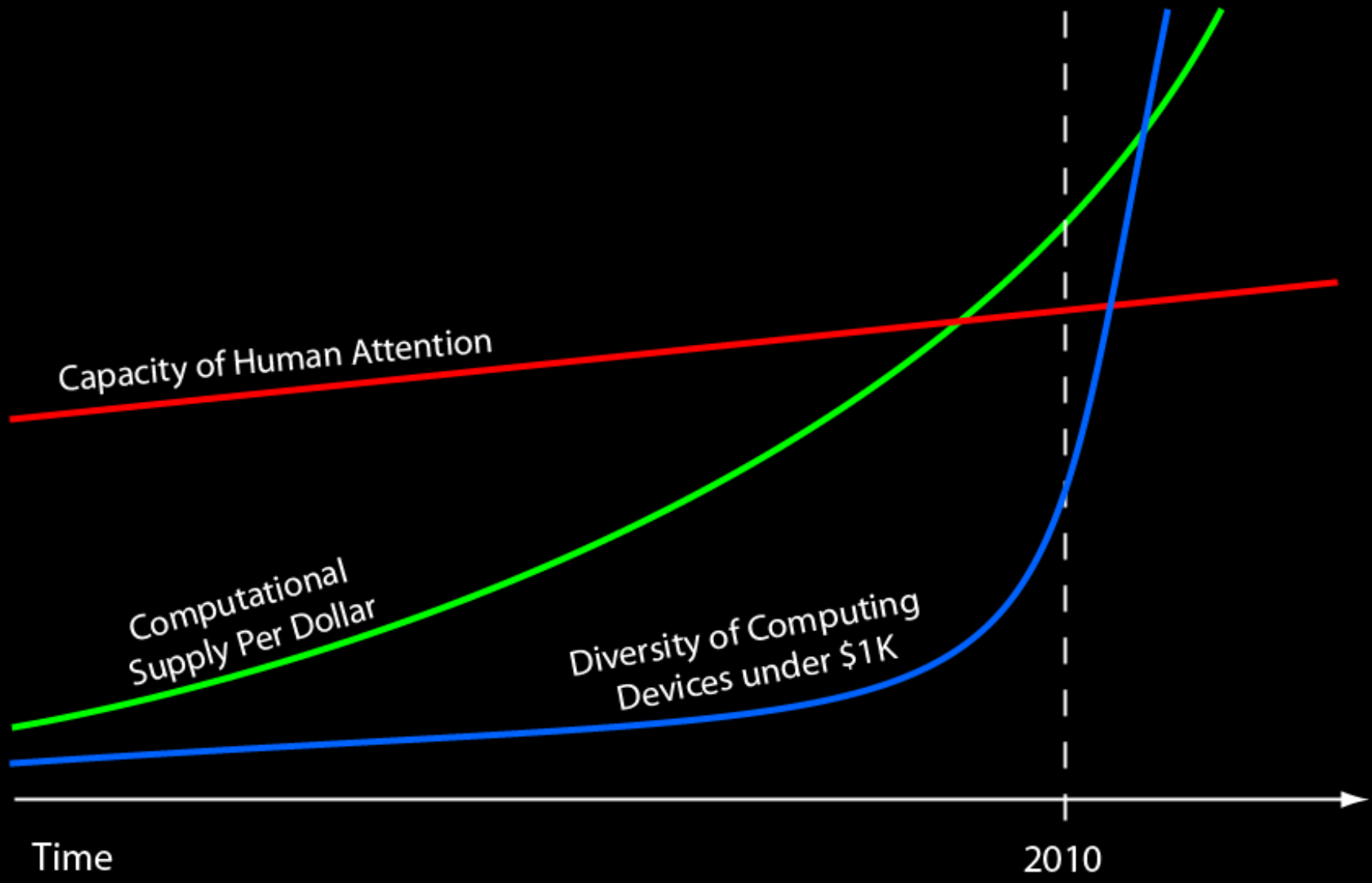

Capacity of Human Attention
Computational
Supply Per Dollar
Time
2010

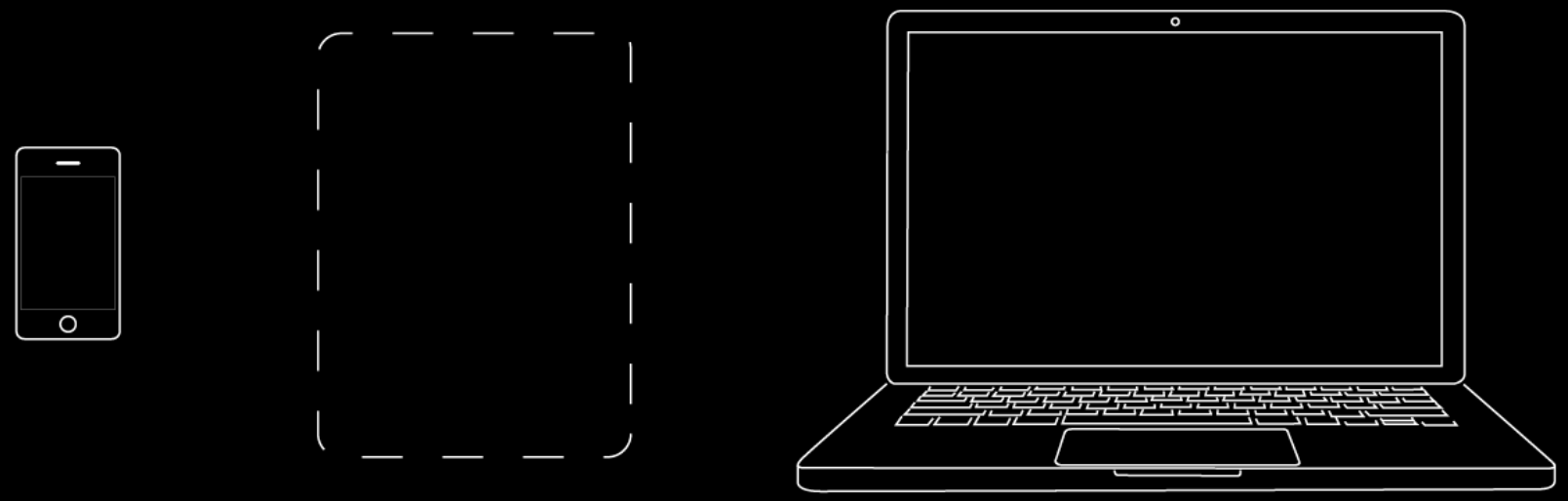


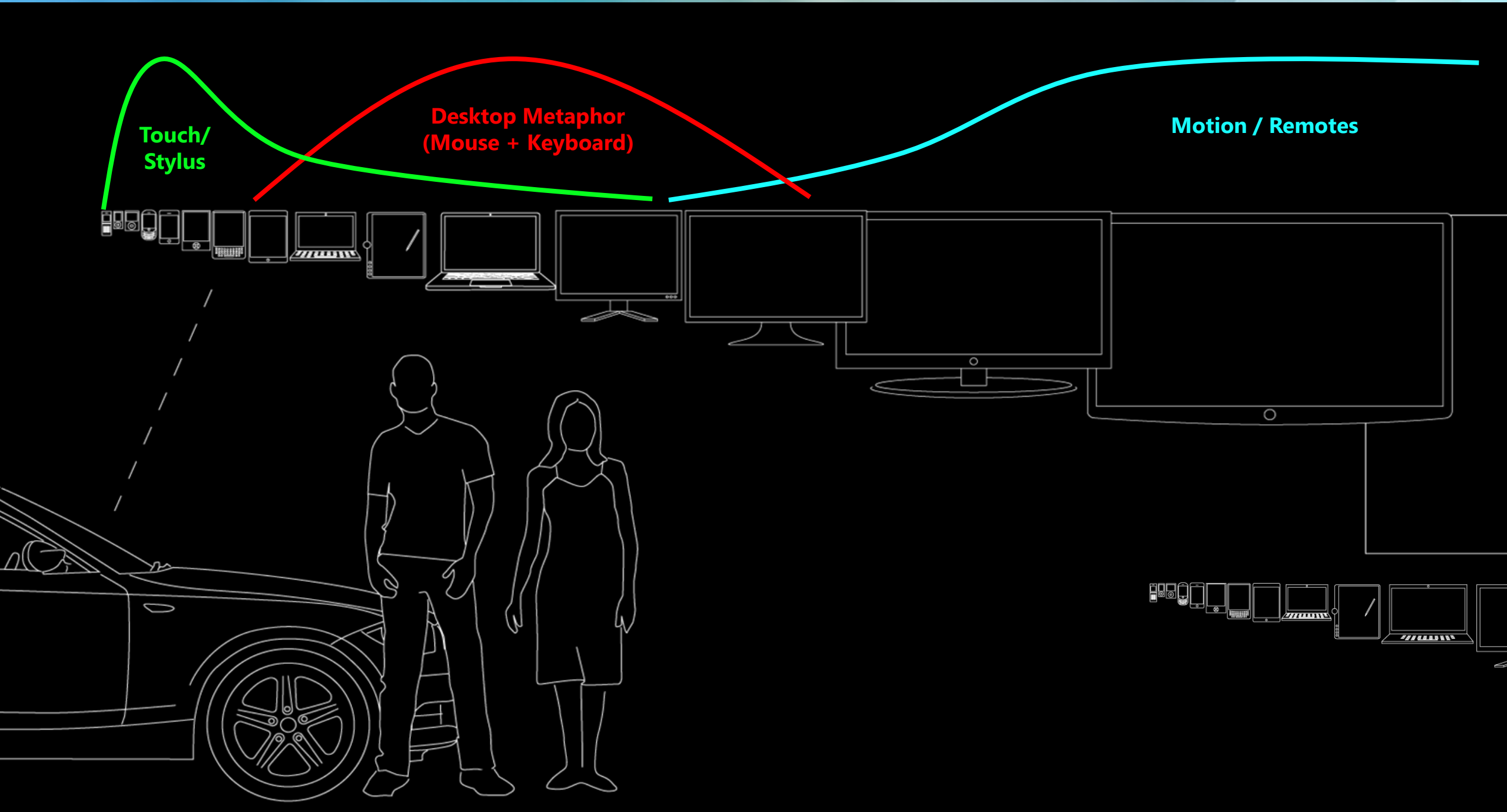





Capacity of Human Attention
Computational
Supply Per Dollar
Time
2010


Capacity of Human Attention
Computational
Supply Per Dollar
Diversity of Computing
Devices under $1K
Time
2010

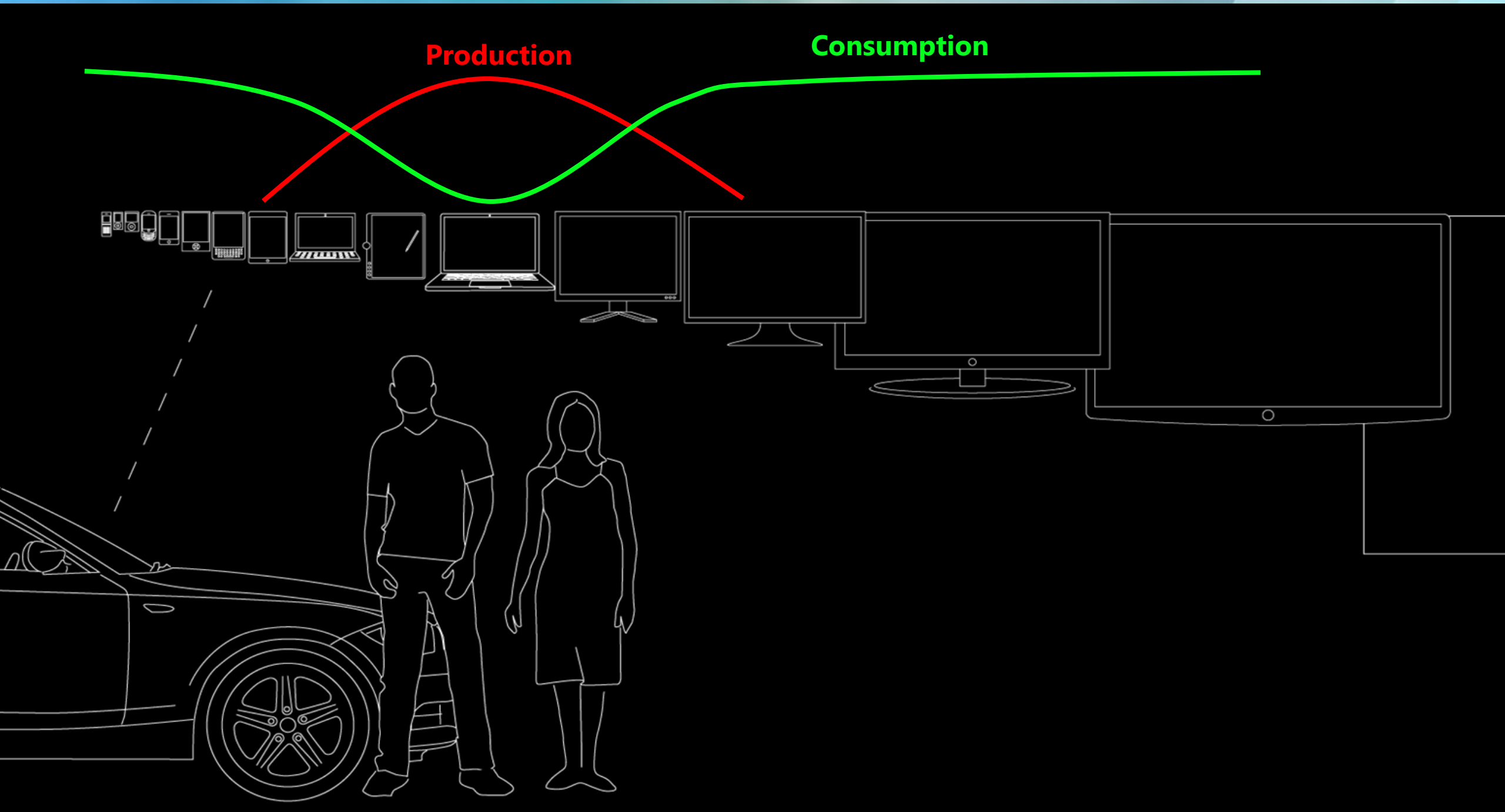


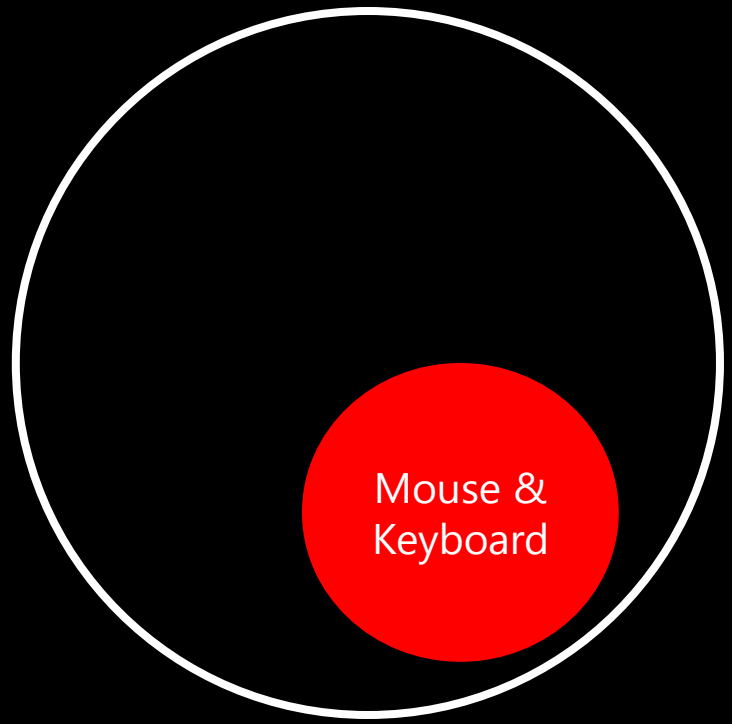

Touch/
Stylus
Desktop Metaphor
(Mouse + Keyboard)
Motion / Remotes

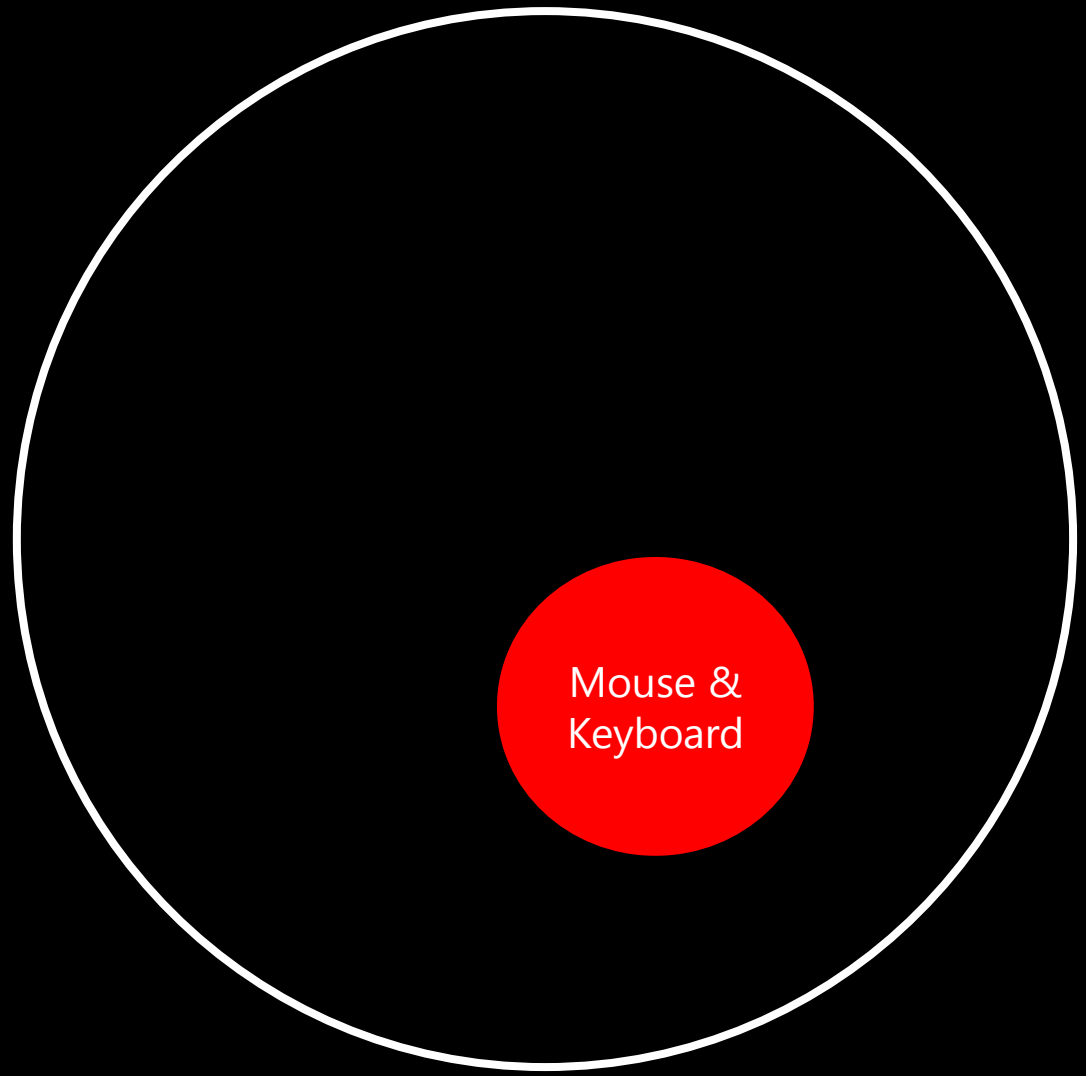
Wii

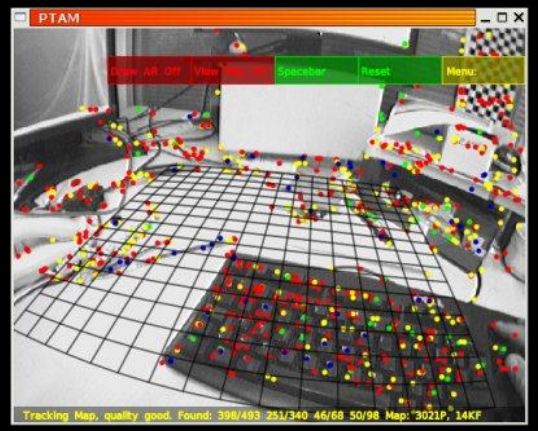
SONY
SONY

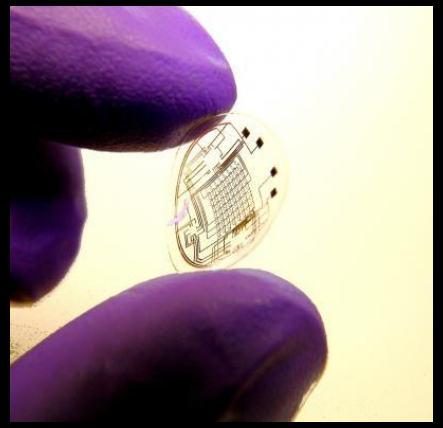
YOU ARE
THE CONTROLLER

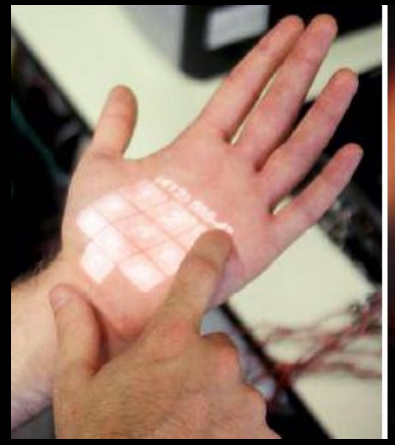

Production
Consumption

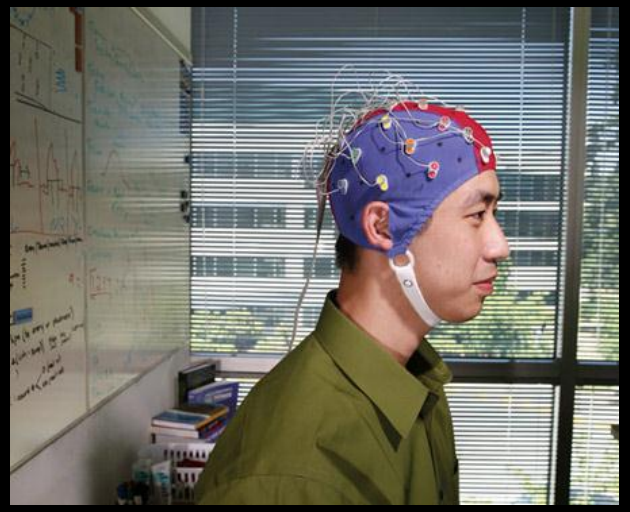

Mouse &
Keyboard


Mouse &
Keyboard


PTAM
Spacebar
Reset
Menu:
Tracking Map, quality good. Found: 398/493 251/340 46/68 50/98 Map: 3021P, 14KF





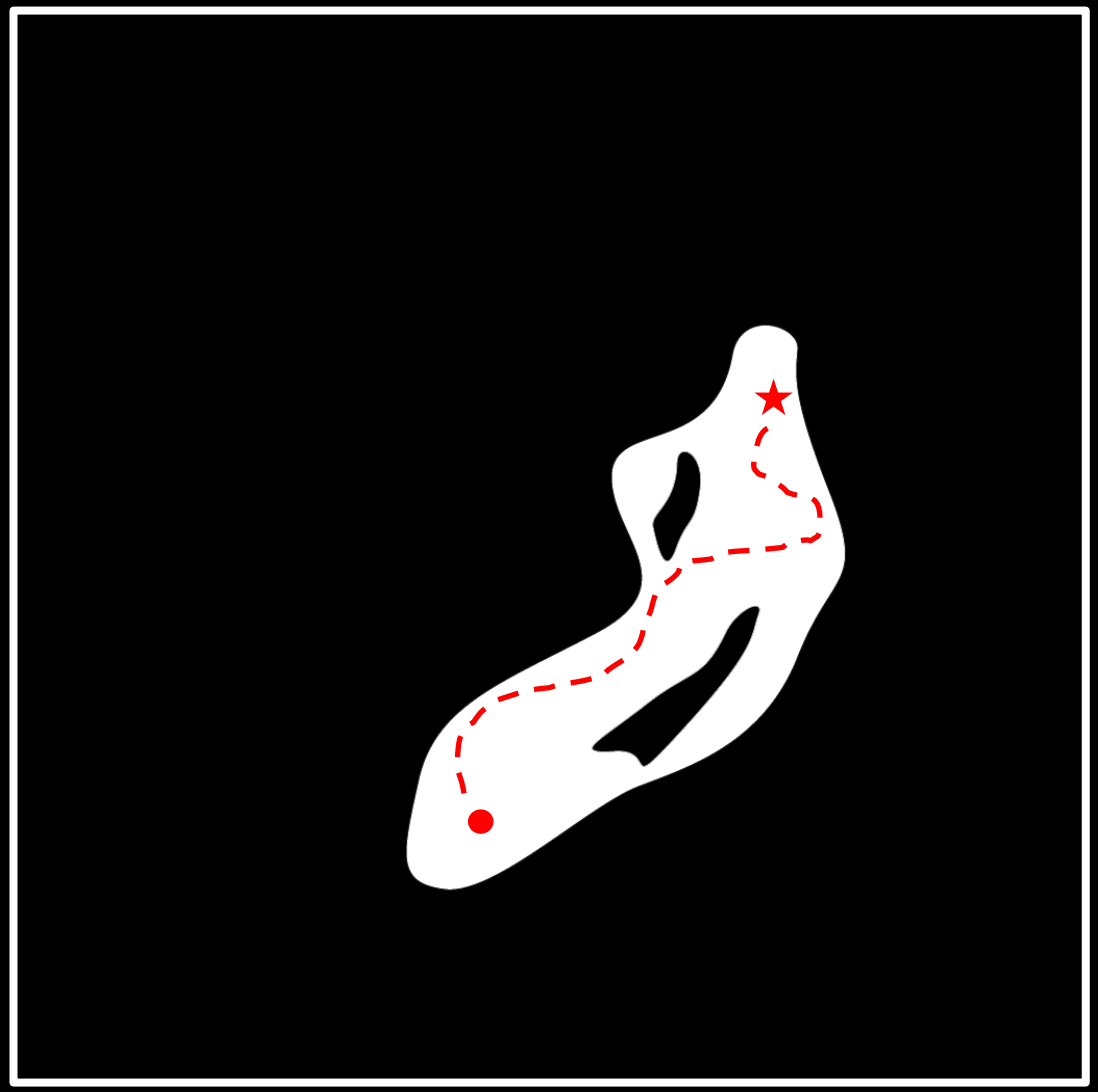


capture intent

does not come for free

UX = P_Success*Benefit - P_Failure*Cost

All Possible User Scenarios



good experience design

limitations marriage application

broad reaching new
interface technology is a myth

< 1% of mobile phones
< 0.1% of computing devices

era of specialization

era of diversification

good hw/sw/ux design

what does this mean for HCI academic research?

number of academics
working with new UI technology

100’s

number of non-academics
working with new UI technology

>10,000’s

academics adding a few drops to the bucket
of massive parallel exploration is not very valuable

well-funded research should focus problems
that enthusiasts cannot:

new algorithmic capabilities
new sensor designs
new emitter designs
new optical designs
new materials

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