

Ubicomp



MICHAEL BERNSTEIN | CS 247 | THANKS TO JEFF HEER



“This vision, from an interaction perspective, is not visionary.

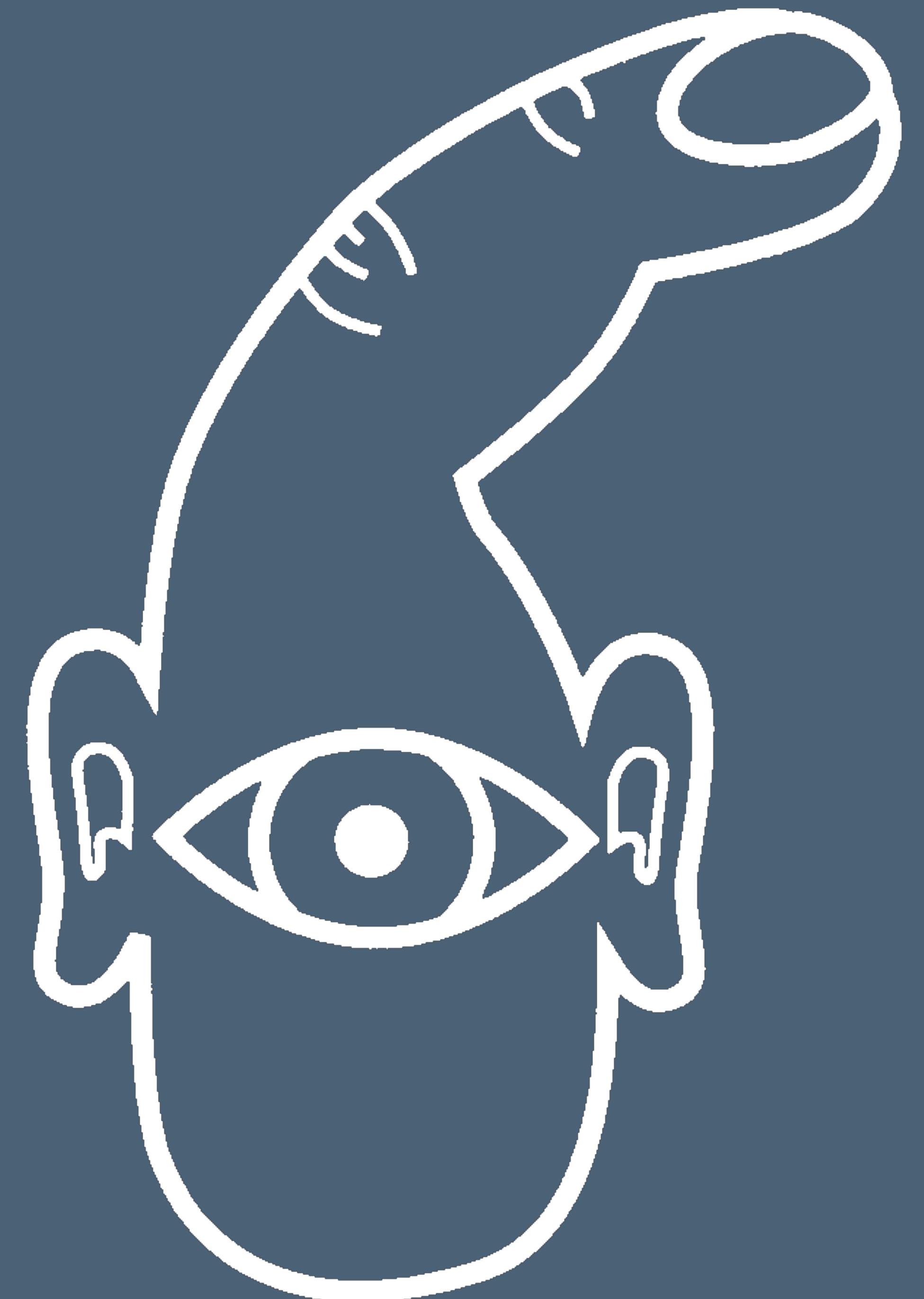
It's a timid increment from the status quo, and the status quo, from an interaction perspective, is actually rather terrible.”

- Bret Victor

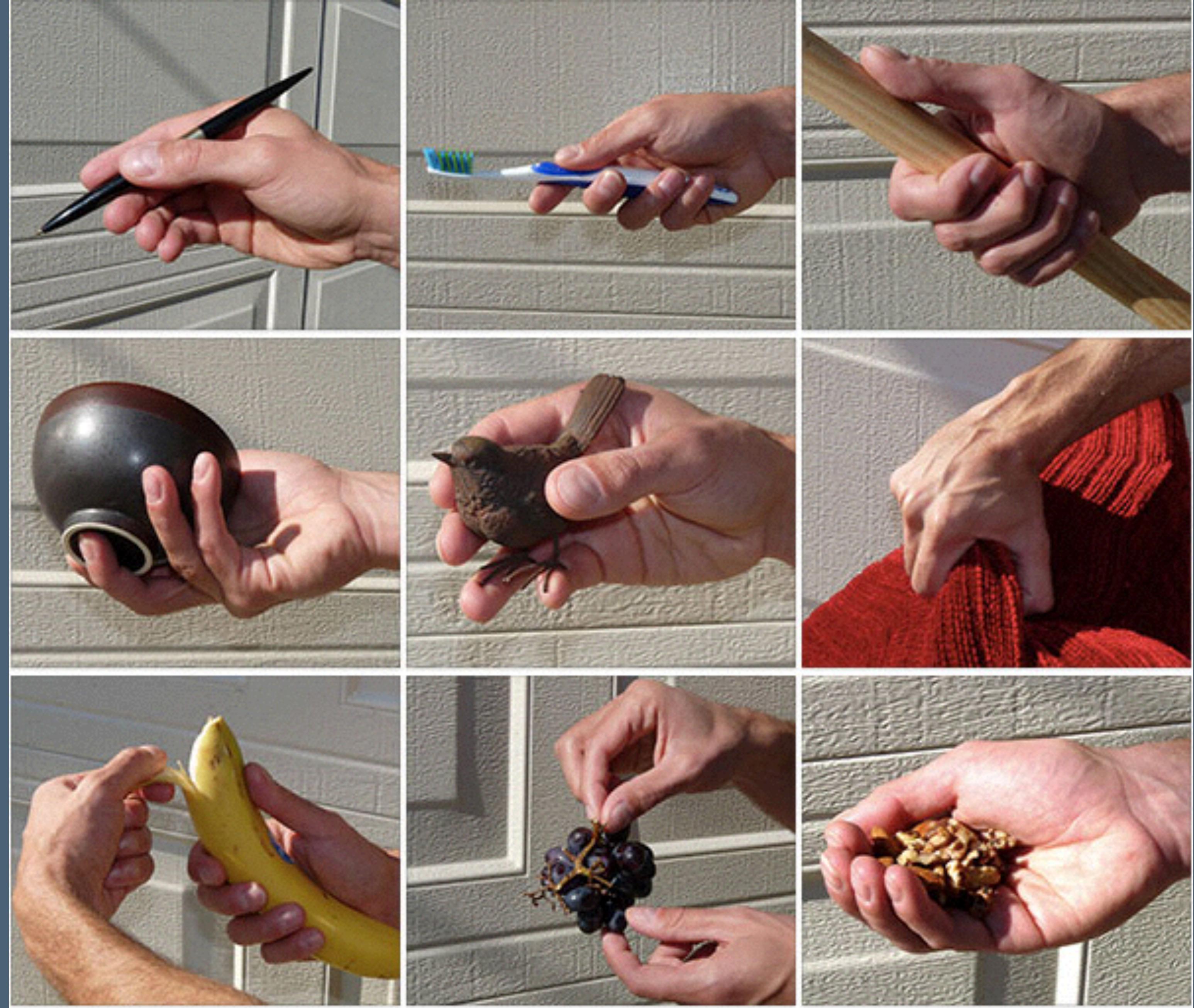




The interaction surface that Stanford deserves?



Igoe





Power grip, fingers vs palm

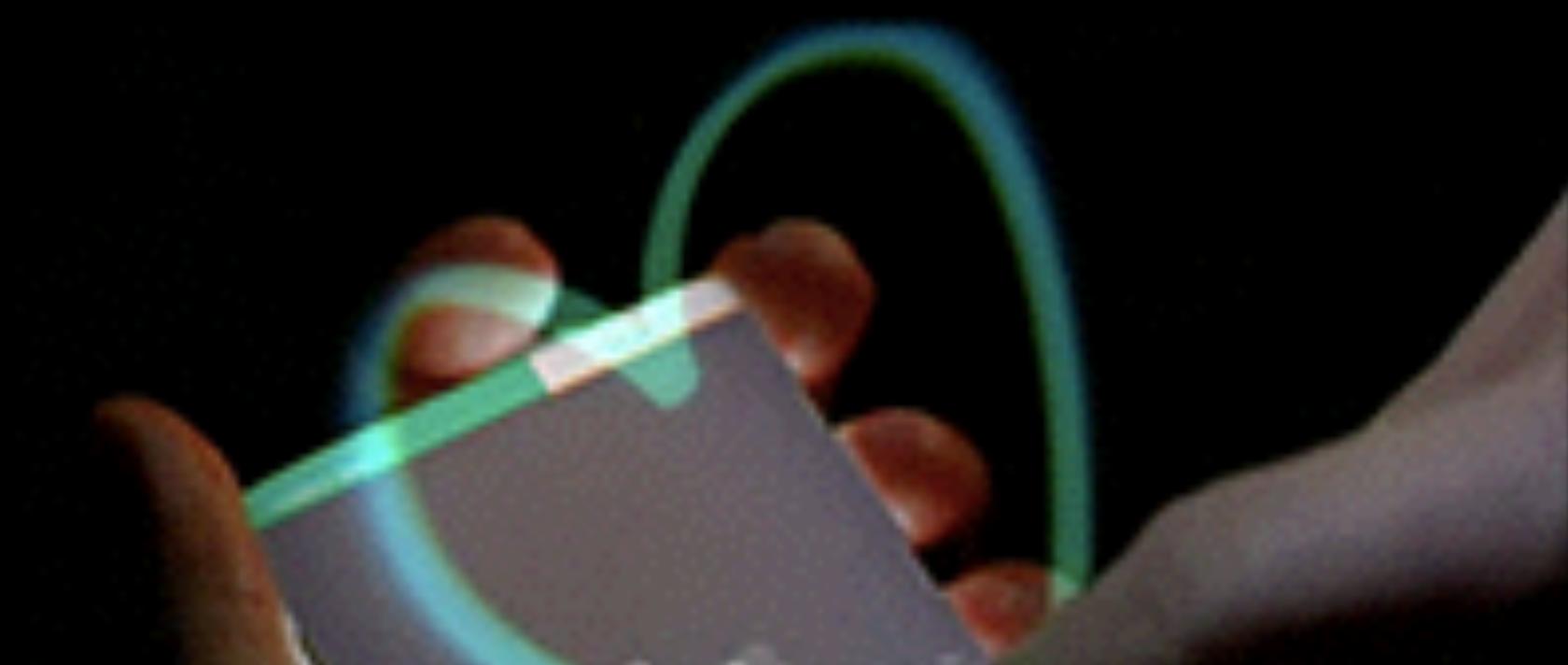
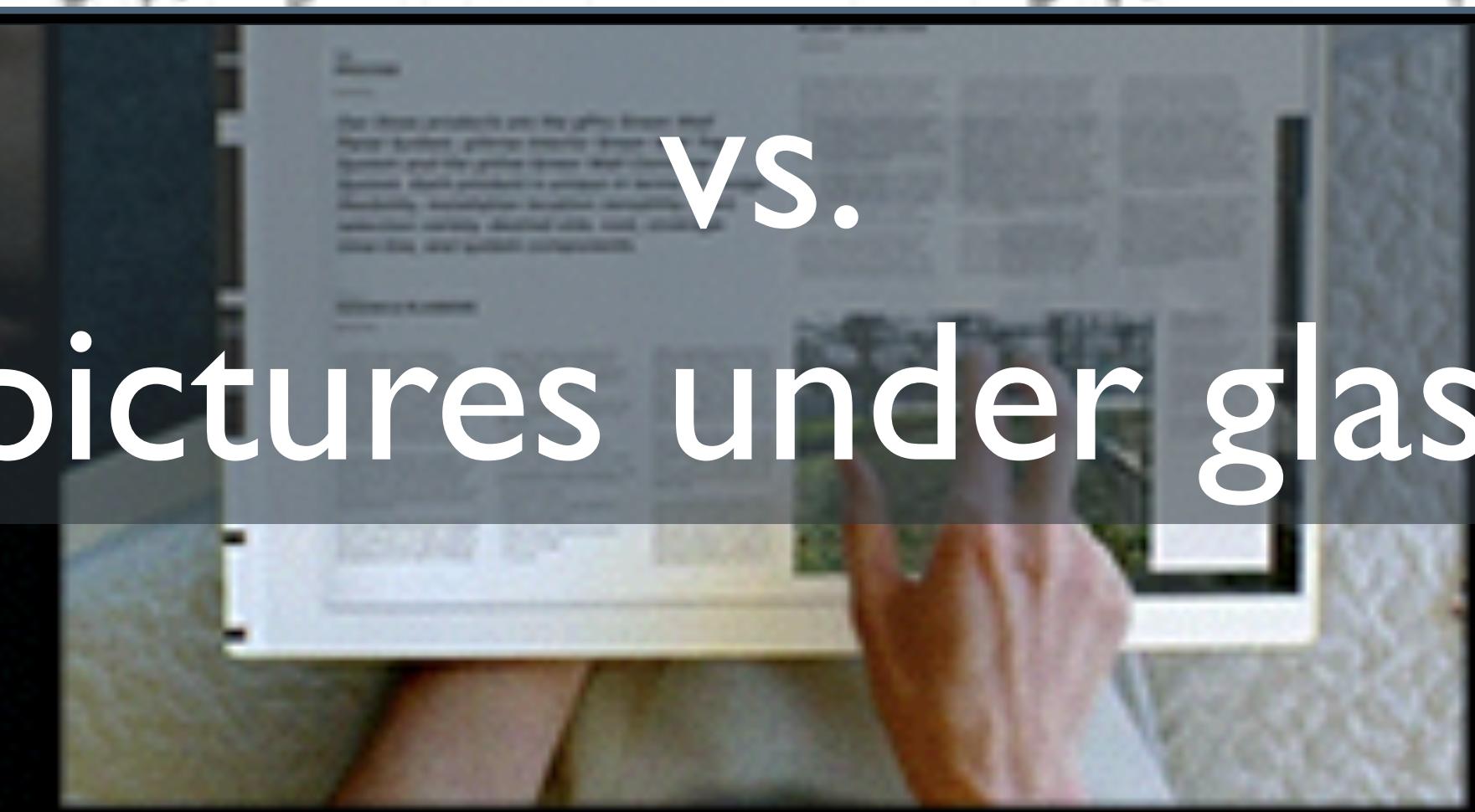
Precision grip, fingers vs thumb

Hook grip, between phalanges

Scissor grip, between fingers

vs.

“pictures under glass”



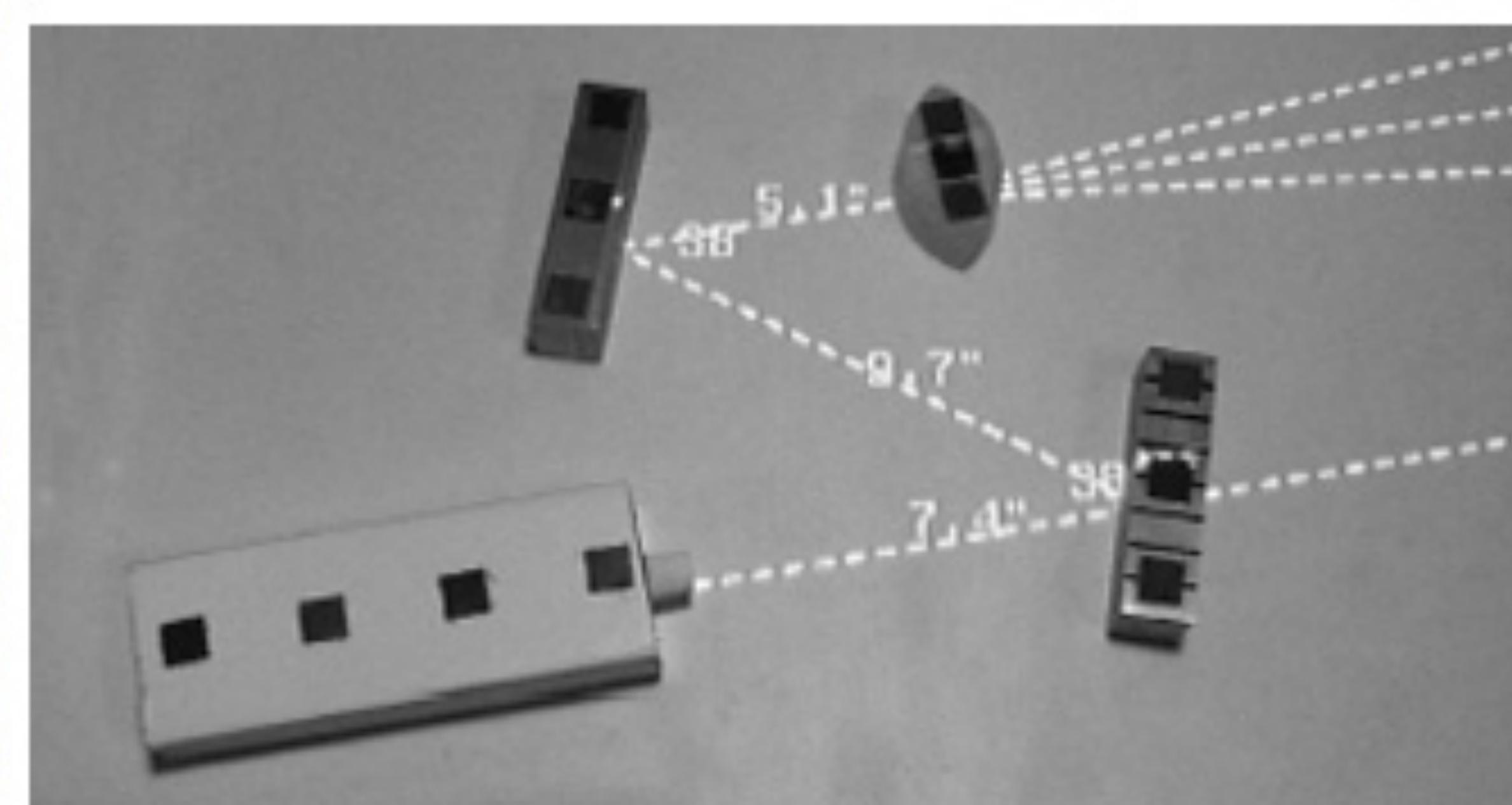
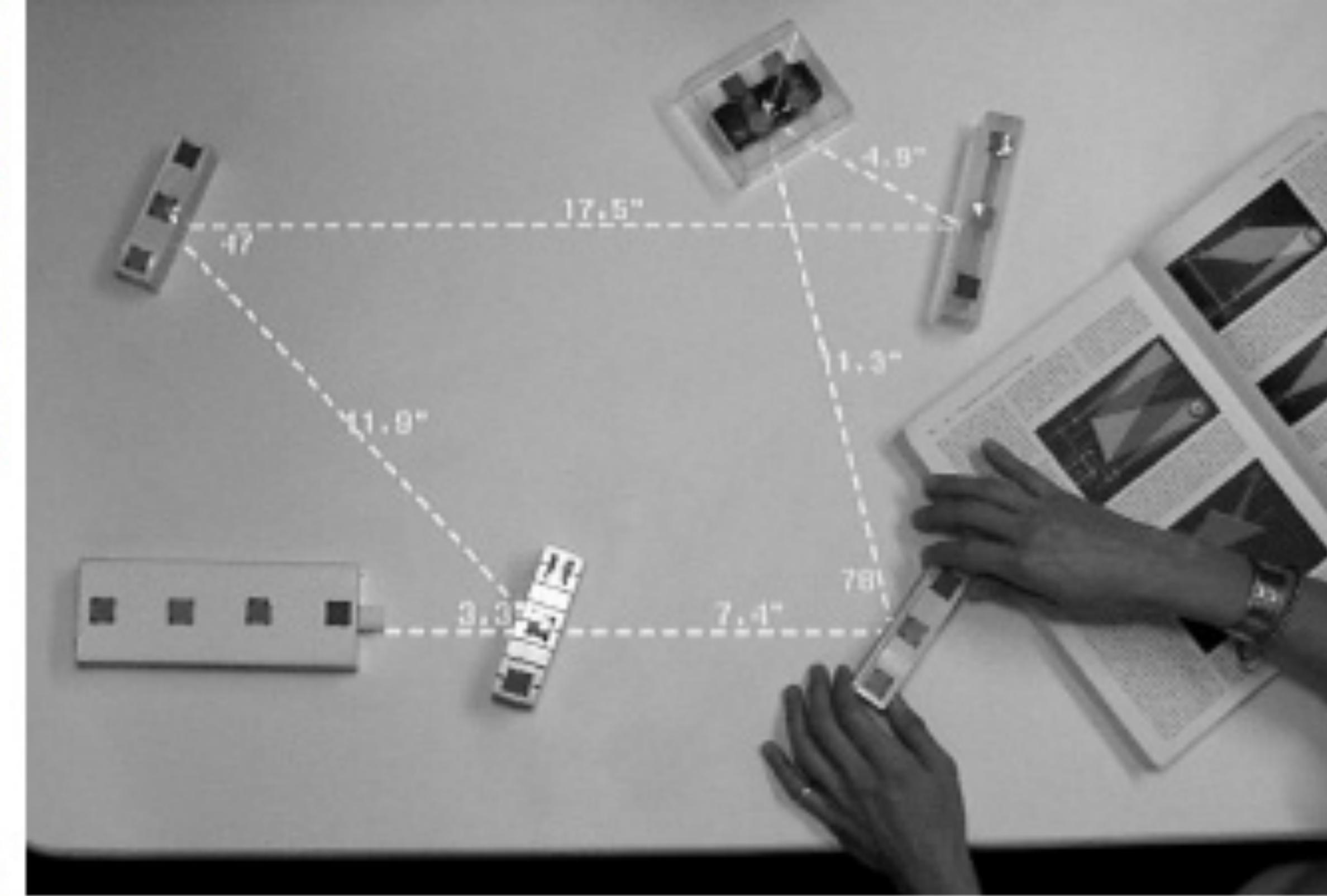
“The most profound technologies
are those that disappear.

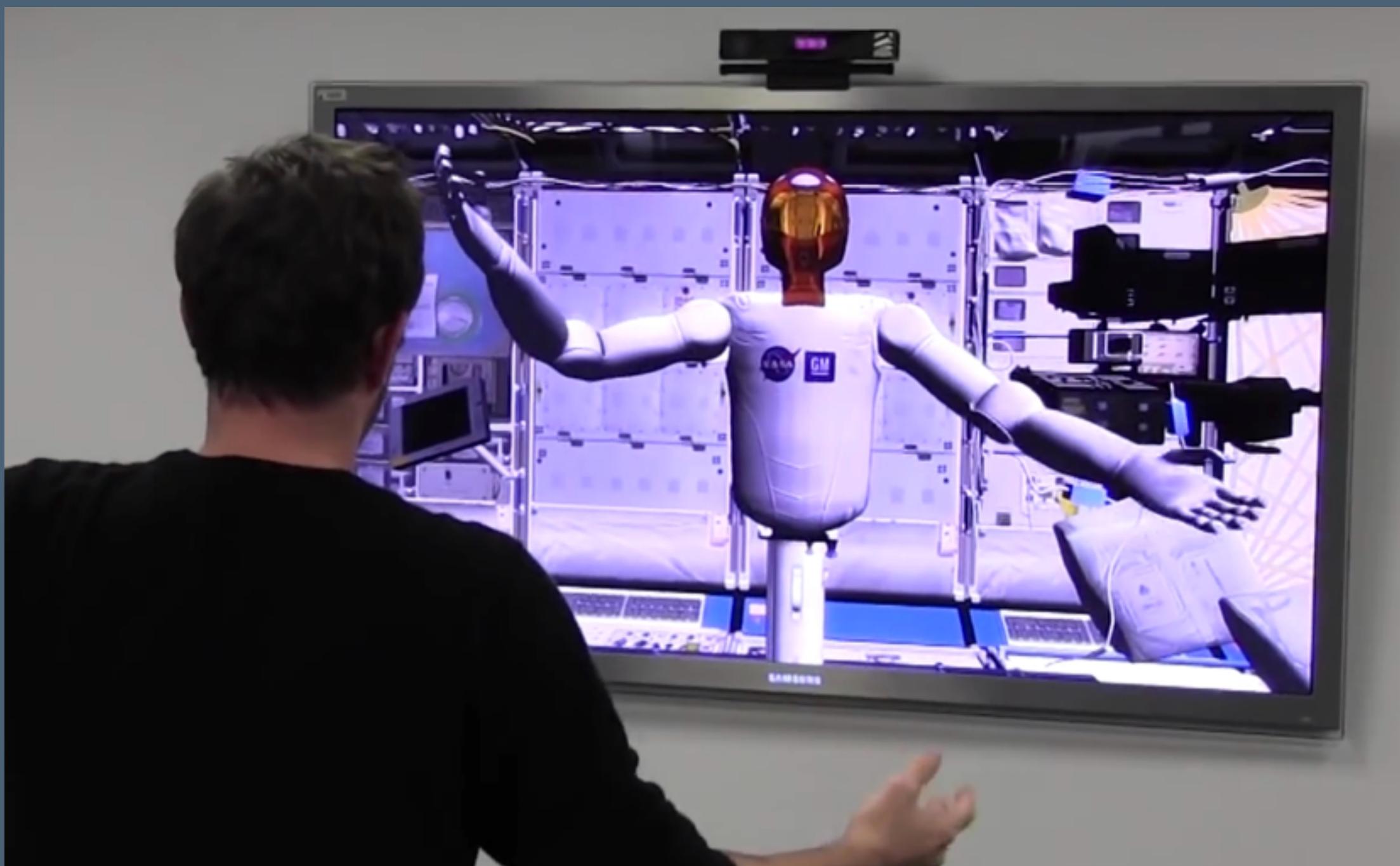
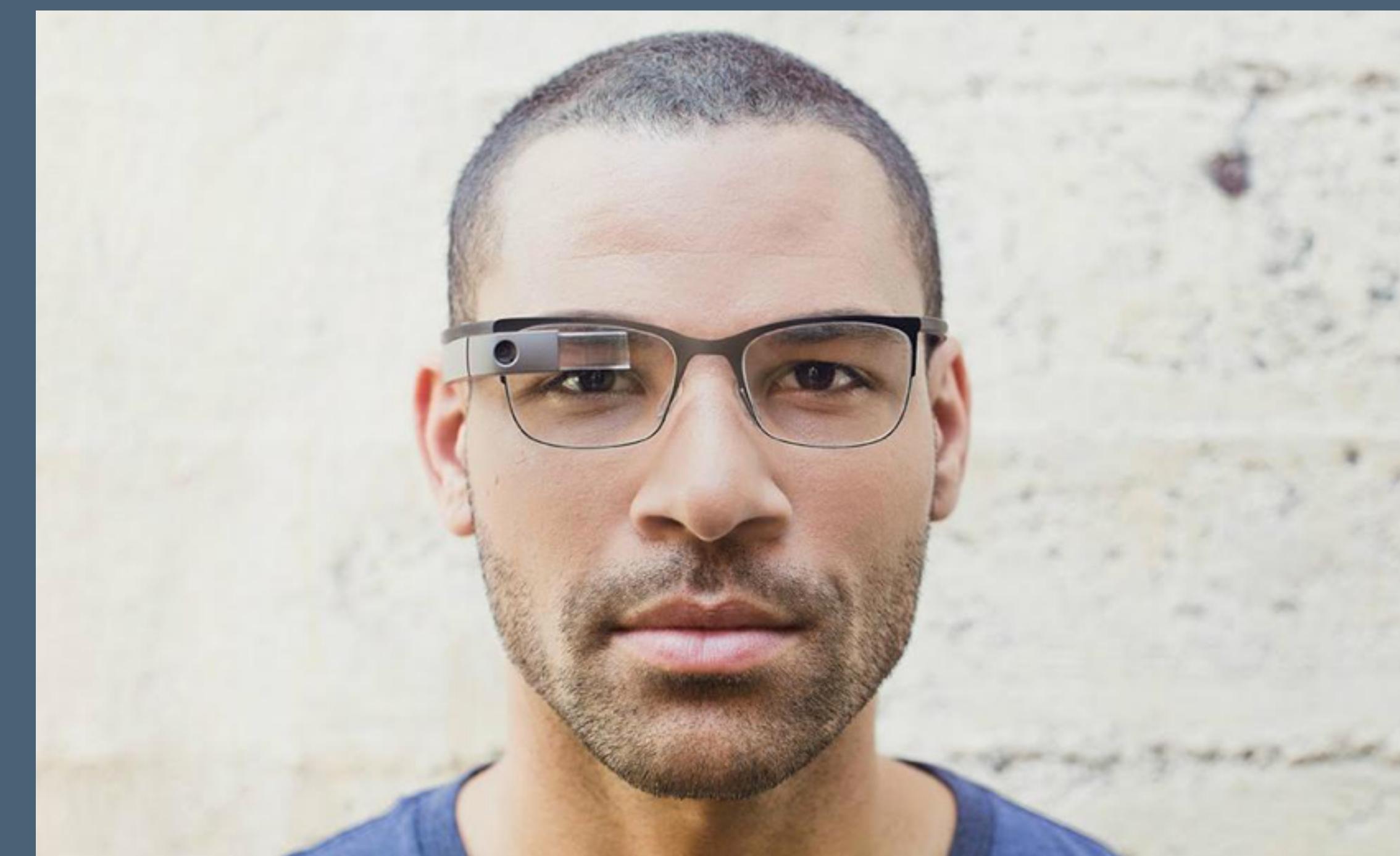
They weave themselves into the
fabric of everyday life until they are
indistinguishable from it.”

- Mark Weiser

Ubiquitous computing

- Computing should not just be ubiquitous. It should vanish into the background.
- Interactive phones, tablets, laptops are **ubiquitous but foregrounded**
- Pencils, hammers, analog phones: **true ubiquitous technologies**





Interaction in the world

More words for cocktail parties!

Embodiment

- Computing can become a cognitive prosthesis:
an extension of our perception-cognition-action loop





Ambient Devices forecasting umbrella

Deixis

- “You!”
- “There!”
- “That!”
- We continuously reference elements in the world in ambiguous ways, yet for the most part we seem to convey our intentions quite well.

Deixis

- Deixis: Reference by means of an expression whose interpretation is relative to the (usually) extralinguistic context.
- Common methods of physical reference:
pointing & placing [Clark 2003]

Deixis and clutching



https://www.youtube.com/watch?v=RoxKyKn8_ql

Proxemics



Proxemics



Proxemics



