Computer Science Creativity Criticality

Dr Baden Pailthorpe Lecturer, Hybrid Art Practice ANU School of Art & Design

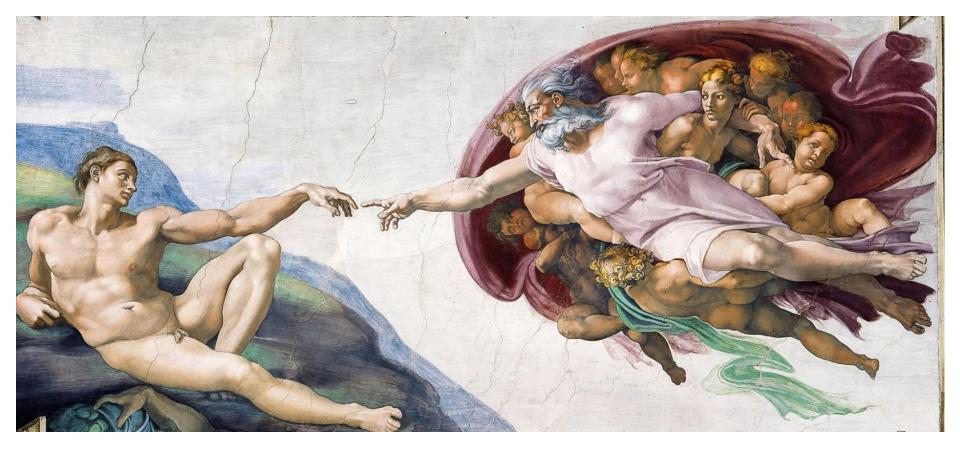
What does art/design have to do with CS?

Technology augmenting human senses

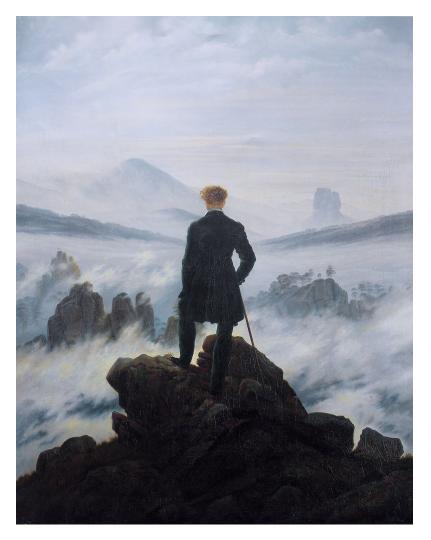




Revealing the invisible







Caspar David Friedrich, *Wanderer above the Sea of Fog*, 1817. Kunsthalle Hamburg.



Documentation from scuba expedition to locate NSA choke point on undersea communications cables, Miami Coastline, U.S.

Trevor Paglen



Trevor Paglen, *Reaper Drone (Indian Springs, NV; Distance ~ 2 miles)*, 2010 C-print

Trevor Paglen



Trevor Paglen, *Untitled (Reaper Drone)*, 2010 C-print

Trevor Paglen

Thinking Machines Art and Design in the Computer Age, 1959–1989

November 13, 2017–April 8, 2018 The Museum of Modern Art

Beryl Korot <u>Text and Commentary, 1976-1977</u>

5-channel video (black and white, sound), 5 weavings, 5 drawings, and 6 pictographic video notations 30 min, loop Dimensions variable



Art and AI - conceptual art

Sol LeWitt. Wall Drawing #260, 1975

Chromat SS15 FORMULA 15

Instruction based artworks, procedural and sequential in process and outcome.

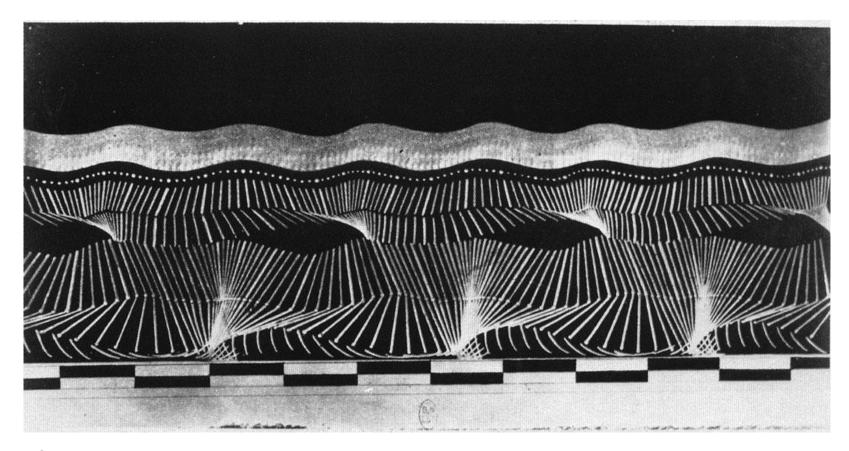


Can a machine create art?

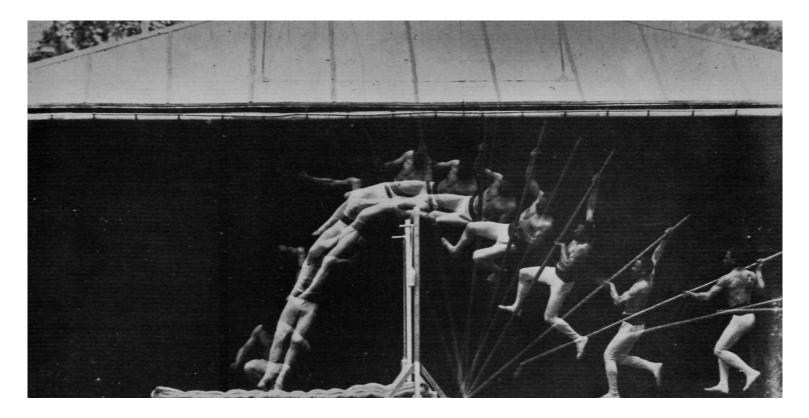
camera Can a machine create art?

"If photography is allowed to supplement art in some of its functions, it will soon supplant or corrupt it altogether, thanks to the stupidity of the multitude which is its natural ally."

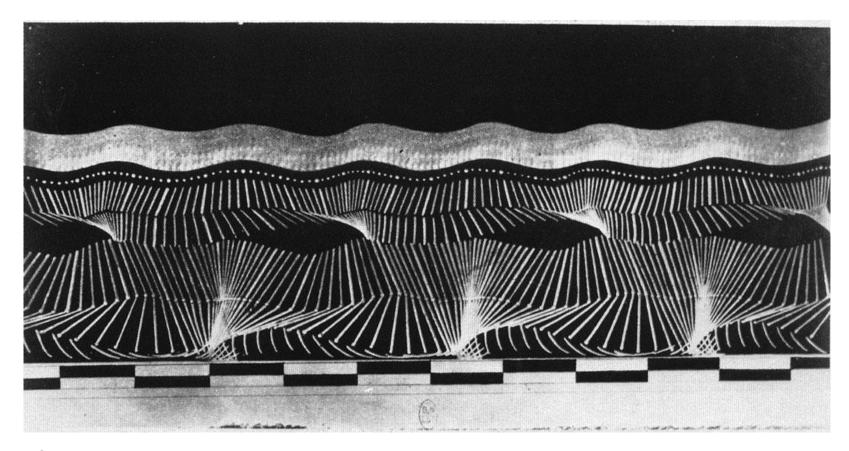
Charles Baudelaire, 1859



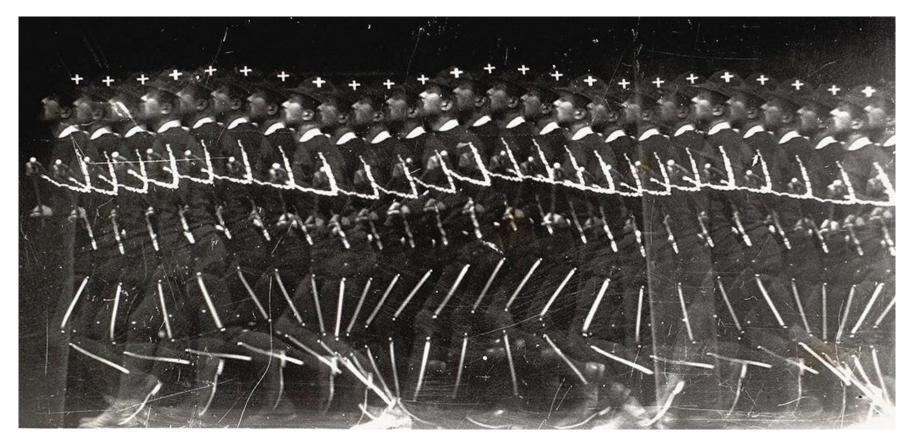
Étienne Jules-Maray, Running, 1884



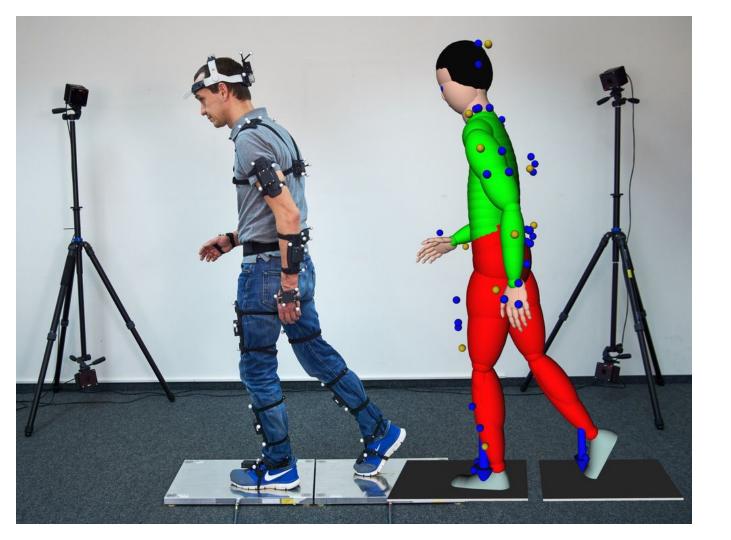
Etienne-Jules Marey, Chronophotographic Study of Man Pole Vaulting (1890-91)



Étienne Jules-Maray, Running, 1884



Étienne Jules-Maray





Thomas Richard Williams,*The Sands of Time* (1855). Stereoscopic daguerreotype, 8 x 17 cm





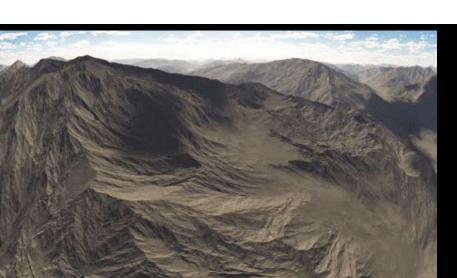
Computation and art: Best friends!



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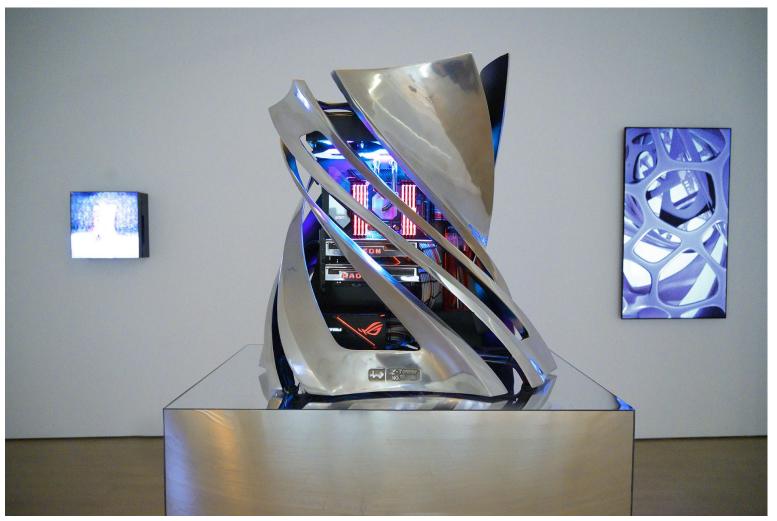
What is a digital image? <u>Unravelling the JPEG</u>

Some examples of how I use computers







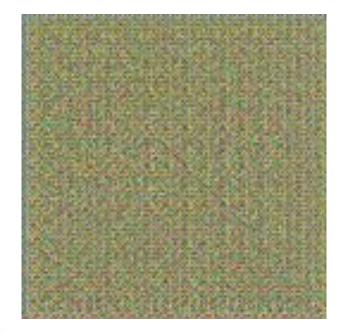


Baden Pailthorpe *One and Three PCs*, 2019 4A, Sydney

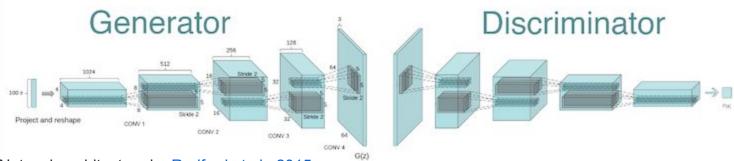


Joseph Kosuth *One and Three Chairs*, 1965 MoMA

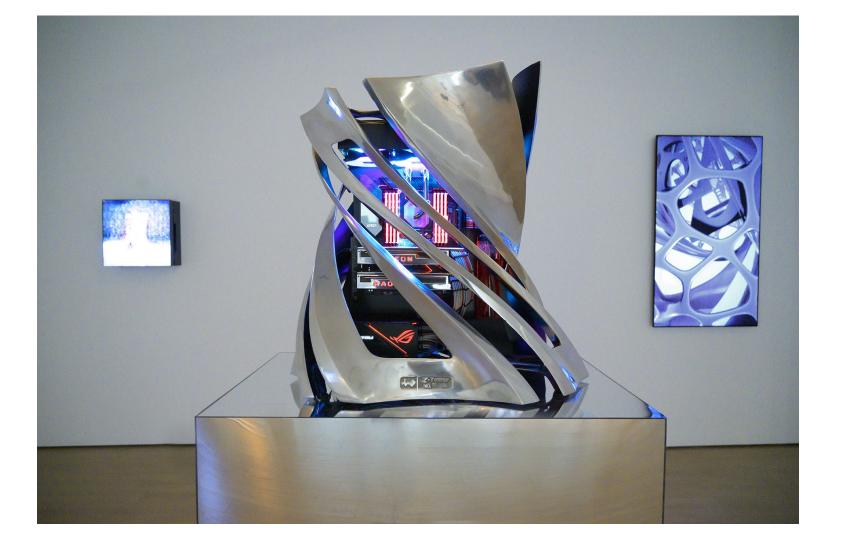








Network architecture by <u>Radford et al., 2015</u>. <u>https://github.com/gsurma/image_generator</u>





Baden Pailthorpe *Procedural Portrait*, 2018 Lyon Foundation, Melbourne

Baden Pailthorpe, *Clanger (longitude, latitude, decibels)* 2018, Single channel video installation. Installation view, UTS Art, Sydney.

Player tracking in the AFL Micro wearables (GPS, Gyro, Accelerometer) Focus on one match (Swans v Carlton)... because that's the data we could most likely get access to

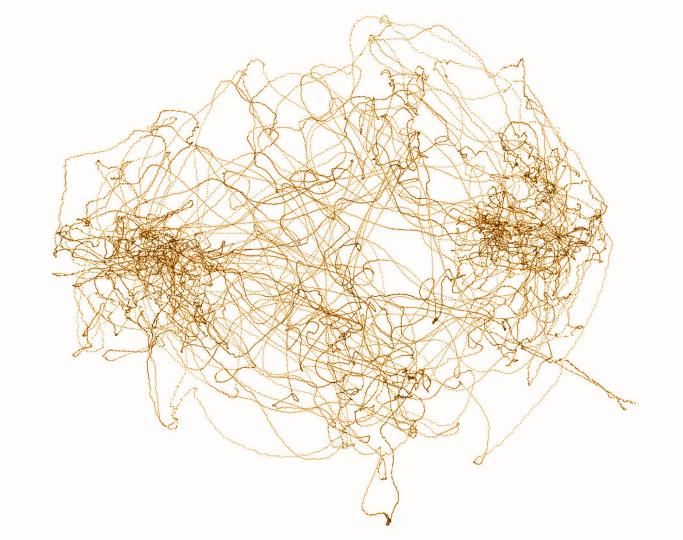
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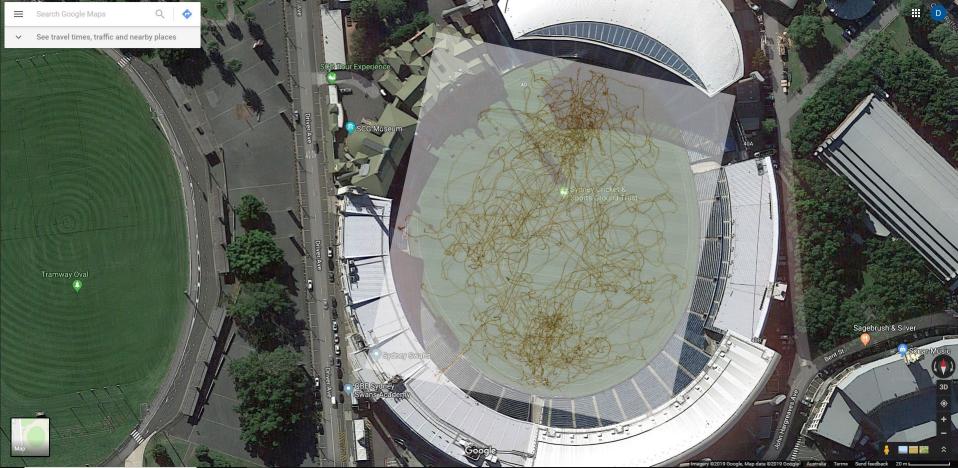


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Software/techniques: Excel notepad Meshlab Drone Photogrammetry Photoshop 3DsMax After Effects

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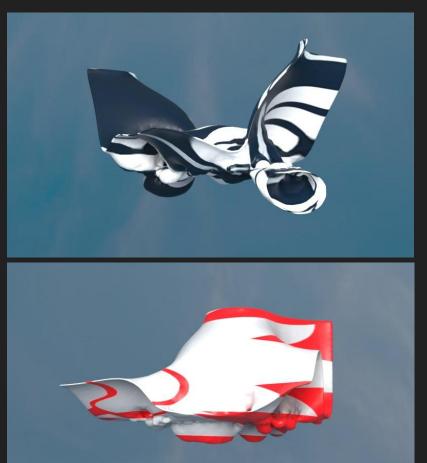
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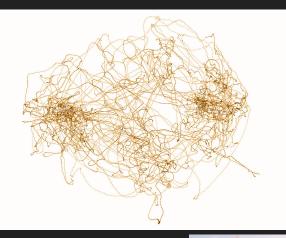






Baden Pailthorpe, *Clanger (longitude, latitude, velocity)* 2018, 36 channel video installation. Installation view, UTS Art, Sydney.



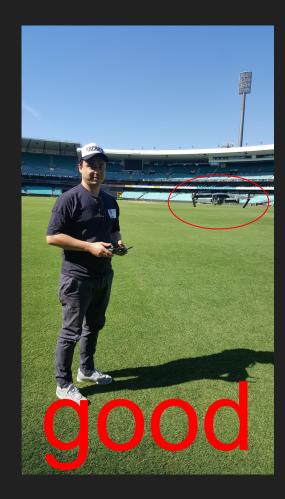


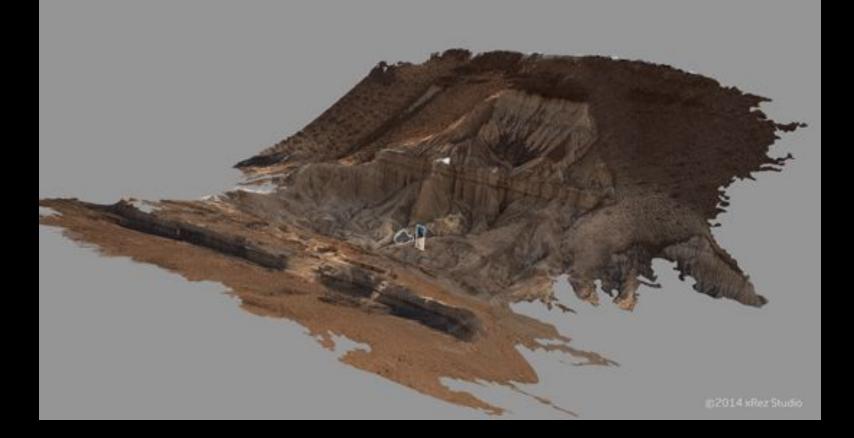


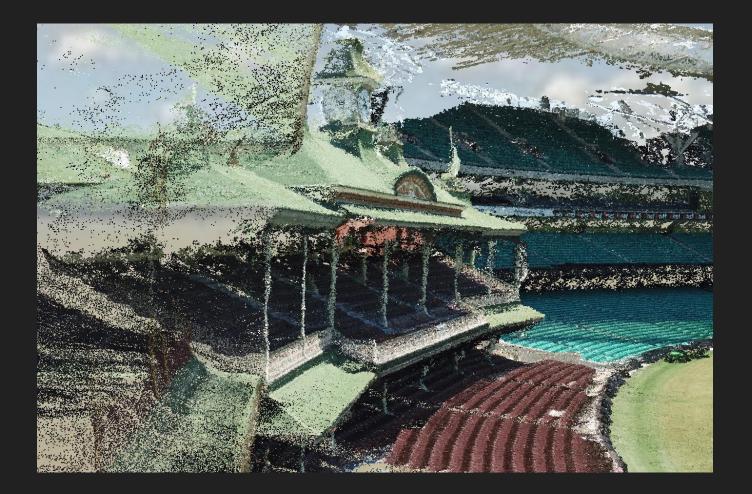


Simulating the stadium environment... Photogrammetry (making 3D models from photos)



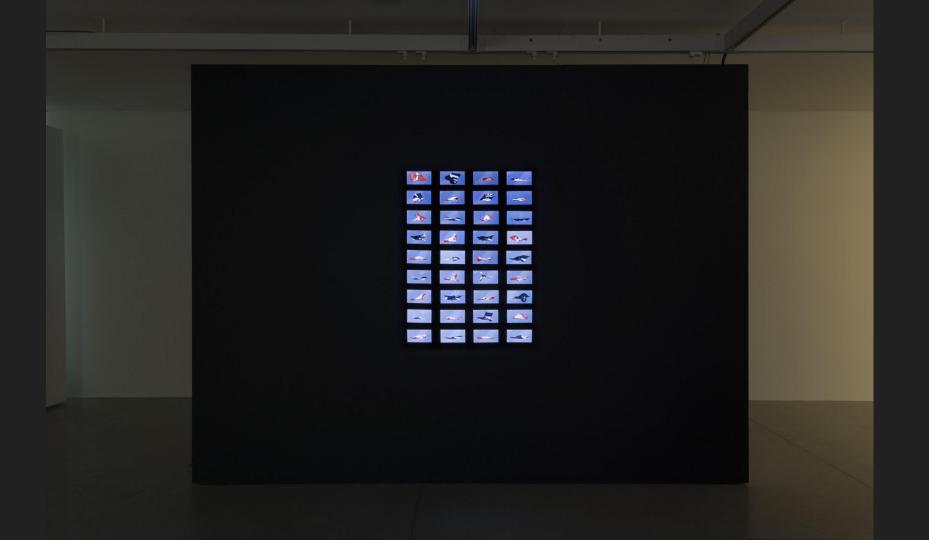






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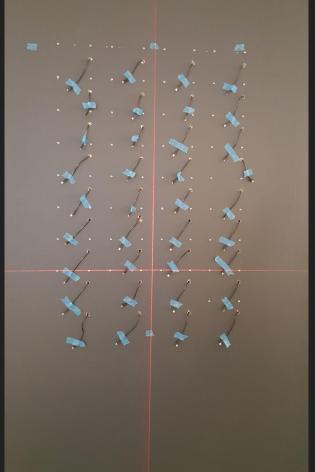




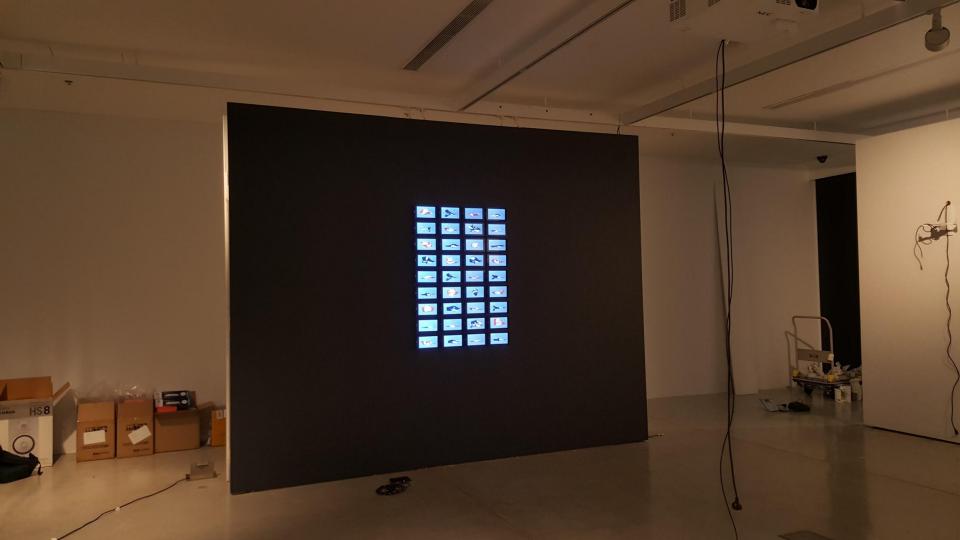










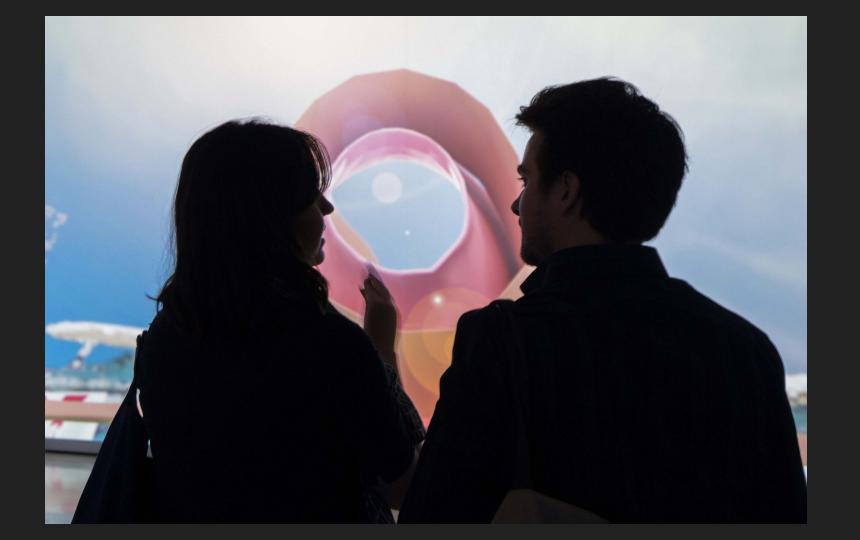


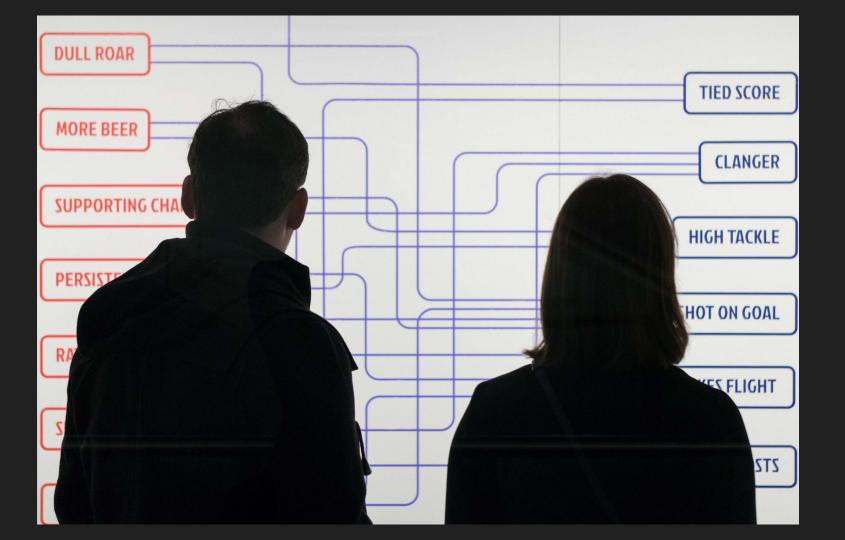














Key Challenges for Computer Scientists (and other humans/more than humans)



Paul Virilio (1932 - 2018)

The invention of the plane was also the invention of the air disaster

....So what is the AI equivalent?

Ethics and AI

Facial Recognition

Predictive Policing

Robo Debt

Employment and Automation

Think Critically

STEEP

Social / Technical / Economic / Ecological / Political

Question assumptions

Think about context

Think about ideology

Think about culture

Examples:

