

Computer Graphics

Lecture 1: Introduction and Course Organisation

Kartic Subr

Me: A brief history



Univ. of Edinburgh

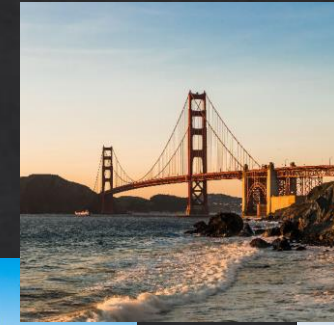
2016 ←



Heriot Watt Univ.



Univ. College London



INRIA-Grenoble



Univ. of California Irvine



Bangalore Univ.



→ 2001



Special Effects



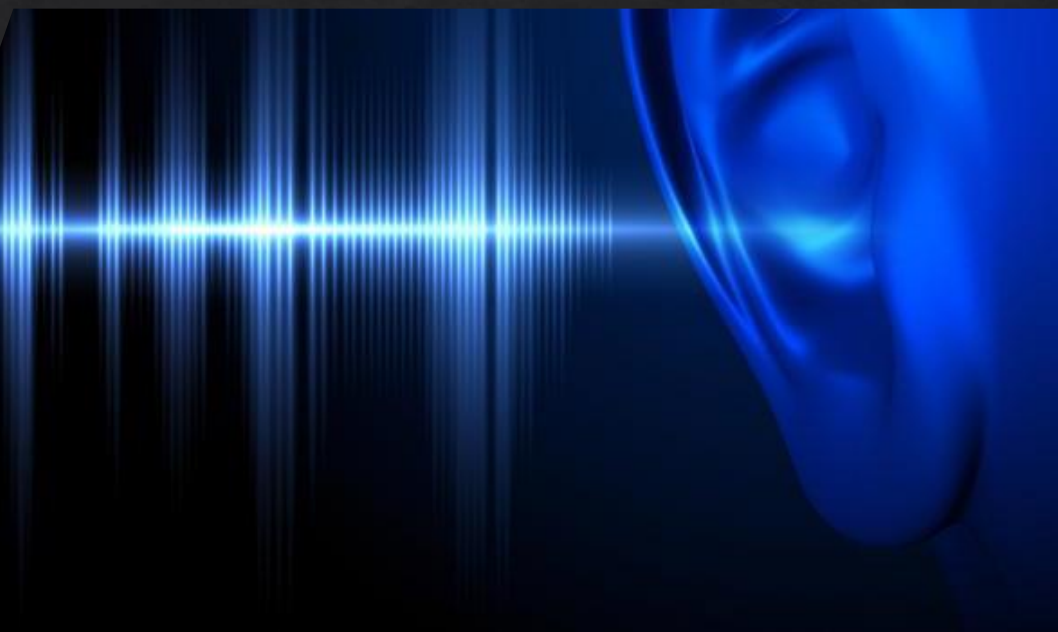
Important Looking Pirates VFX

Final grade

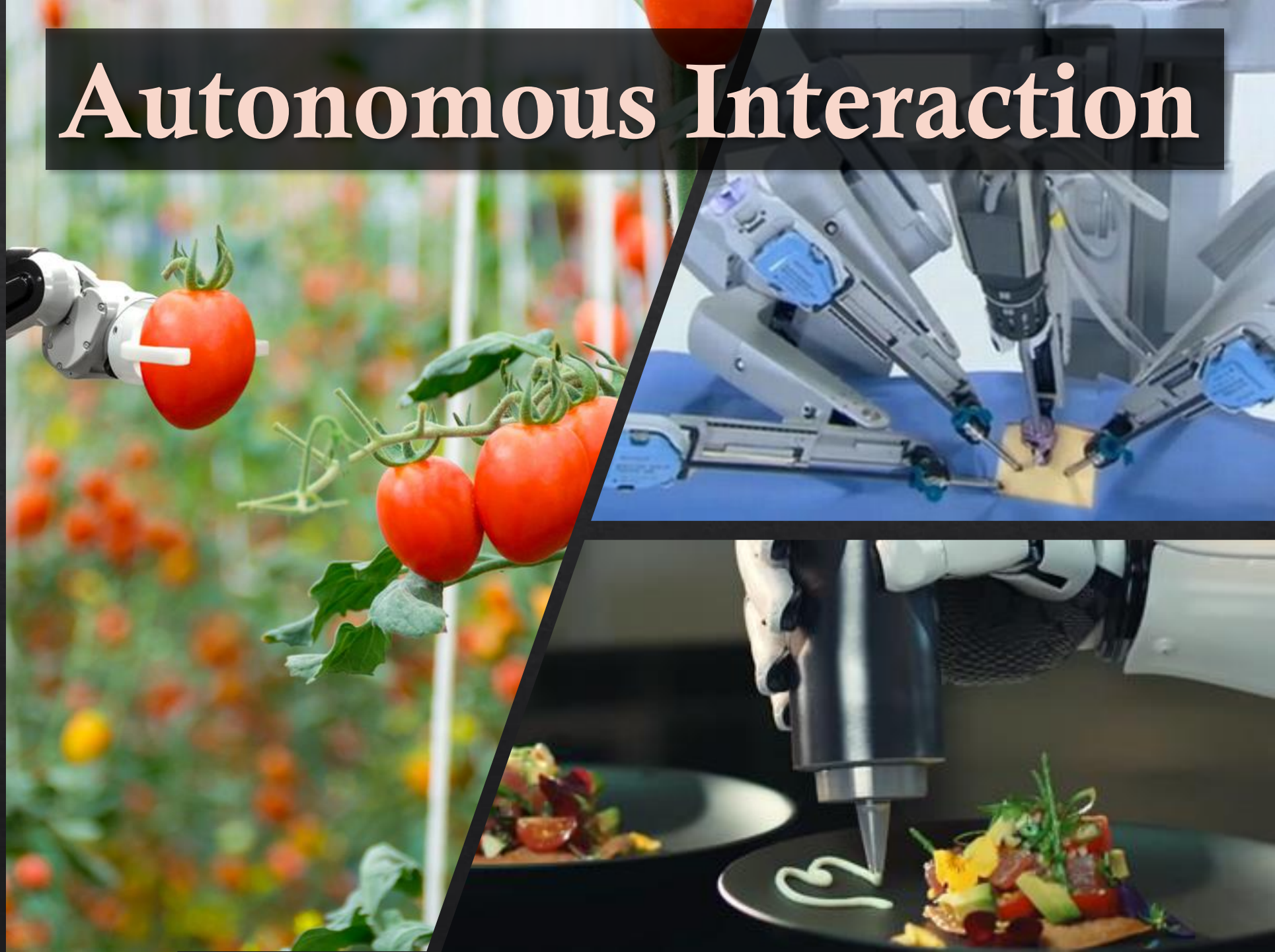
Video Games (real-time)



Google Stadia tech demo 2019



Autonomous Interaction



CG is central to the creative industries

The UK Creative Economy 2018

JOBS

The Creative Economy 2018

3.2 MILLION JOBS

1 IN **11**

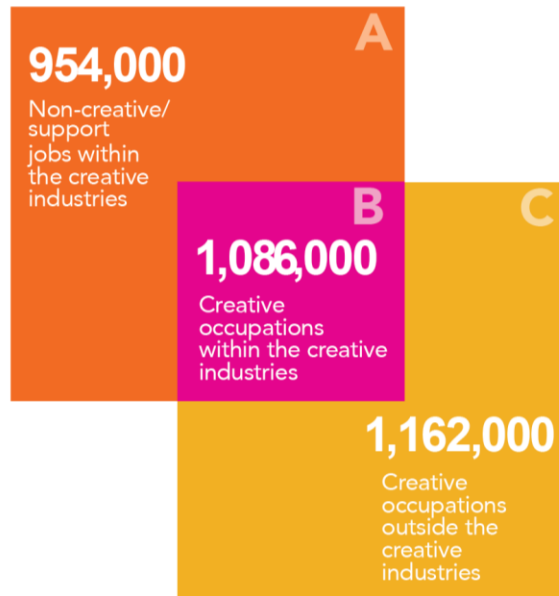
UK JOBS

81k

CREATIVE ECONOMY JOBS ADDED IN 2018

EMPLOYMENT

Employment in the UK creative economy 2018

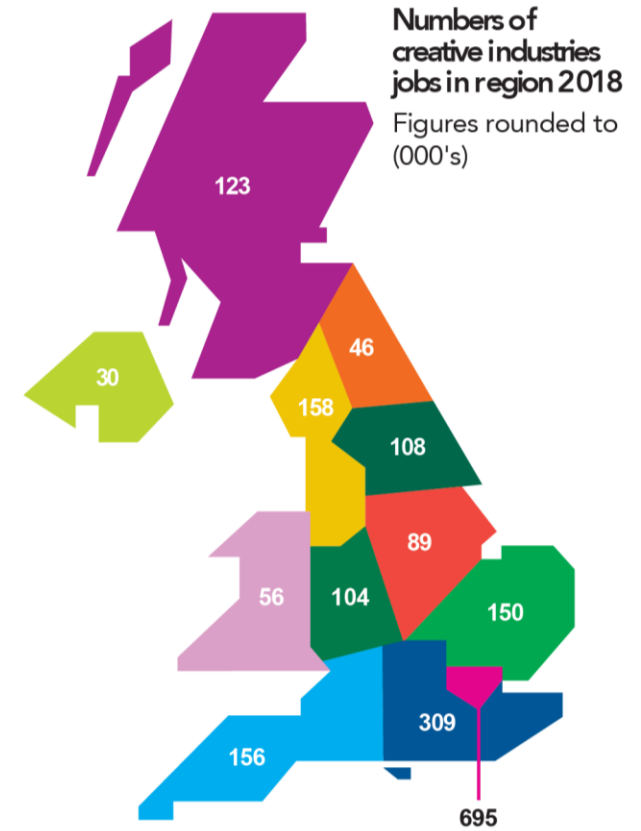


Total **3.2m** jobs in the UK creative economy

creative economy = **A + B + C**

creative industries = **A + B**

REGIONS



www.thecreativeindustries.co.uk

Source: DCMS statistics, June 2019

It's all happening in London now!

<https://onelightvfx.com/studio-list/complete-list-of-2d-3d-animation-post-production-and-vfx-studios-in-england/>

OSCAR NOMINEES, 2019-20

VISUAL EFFECTS



Avengers: Infinity War
Dan DeLeeuw, Kelly Port,...

[VIEW TRAILER](#) | [MORE INFO](#)



Christopher Robin
Christopher Lawrence, Michael...

[VIEW TRAILER](#) | [MORE INFO](#)



First Man
Paul Lambert, Ian Hunter,...

[VIEW TRAILER](#) | [MORE INFO](#)



Ready Player One
Roger Guyett, Grady Cofer,...

[VIEW TRAILER](#) | [MORE INFO](#)



Solo: A Star Wars Story
Rob Bredow, Patrick Tubach,...

[VIEW TRAILER](#) | [MORE INFO](#)

Simulating photorealistic pictures?

photograph



Colourbox.com

manually painted



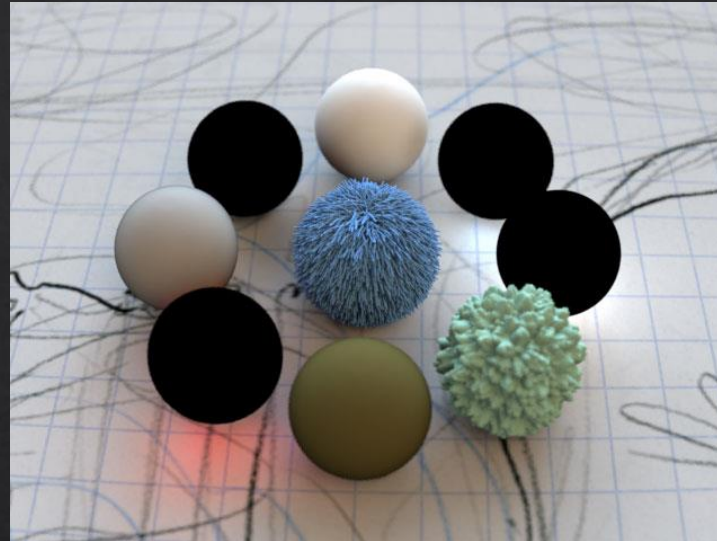
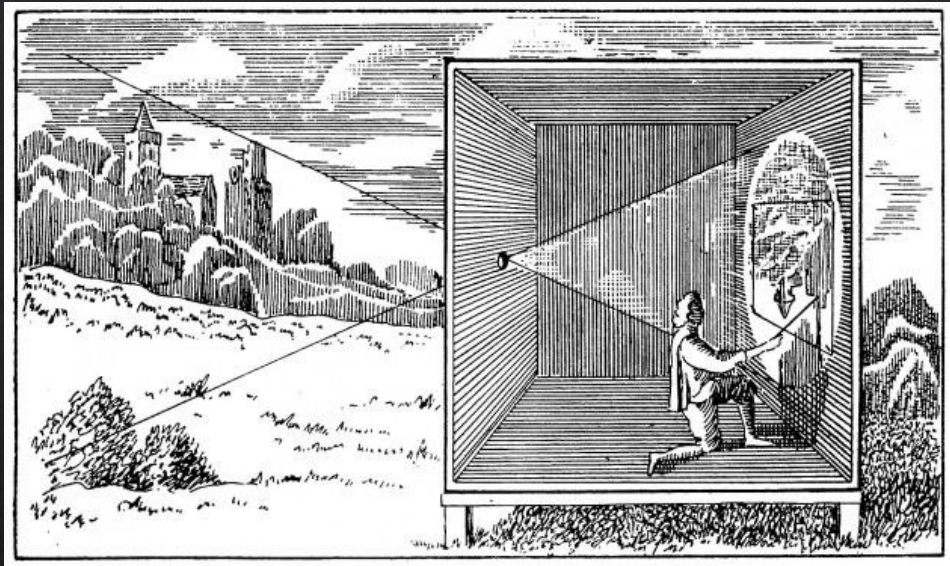
Pedro
Campos

computer generated



Physically based simulation, at its core!

Projective geometry



Energy
(light transport)



Advertising



Engineering



Medicine

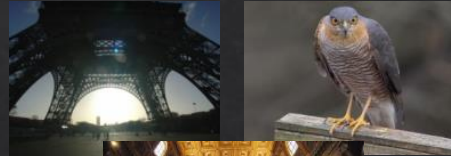


Defense



Entertainment

Simulate the physics of light



lenses



defocus



exposure time

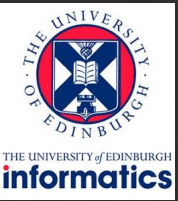


materials



light, media

About the course ...



<http://www.inf.ed.ac.uk/teaching/courses/cg/index2019.html>

Exam time!



<https://prezi.com/view/fgJVmBlMT9RVpE7JzKZz/>