THE UNIVERSITY of EDINBURGH
Careers Service

Welcome to Discover Careers

~~1 to 3 October~~ 2024, 1pm to 6pm

120 employers
Different organisations each day, across two floors

https://edin.ac/45e5DiL

Sponsored by

goodmoves
Charity and voluntary sector jobs

NatWest Group

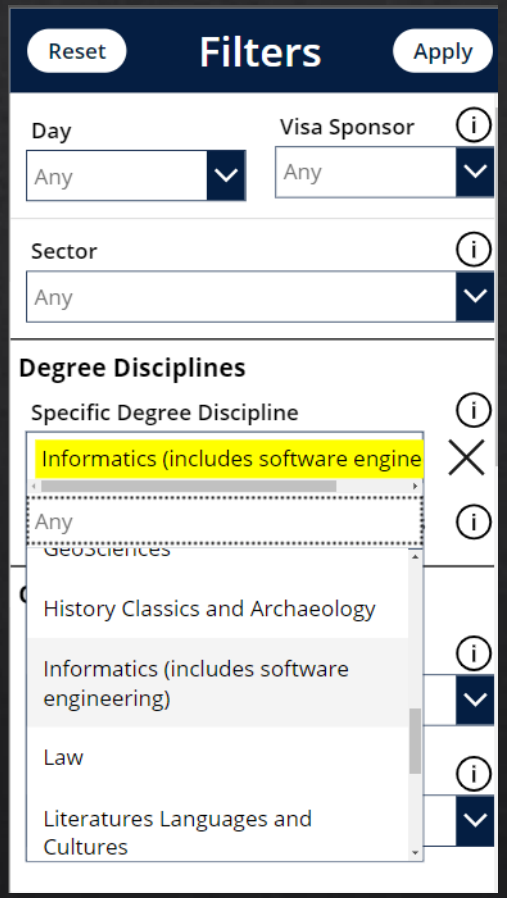
Deloitte.

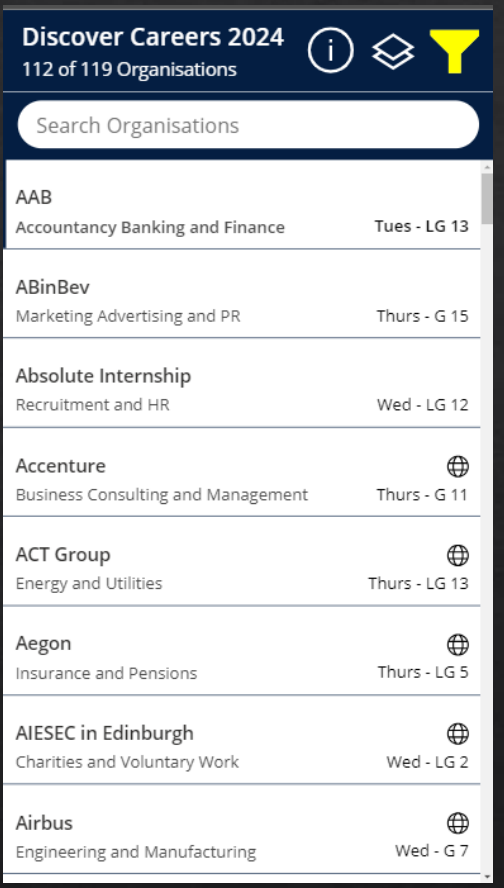
Inspiring futures

Find out more on MyCareerHub

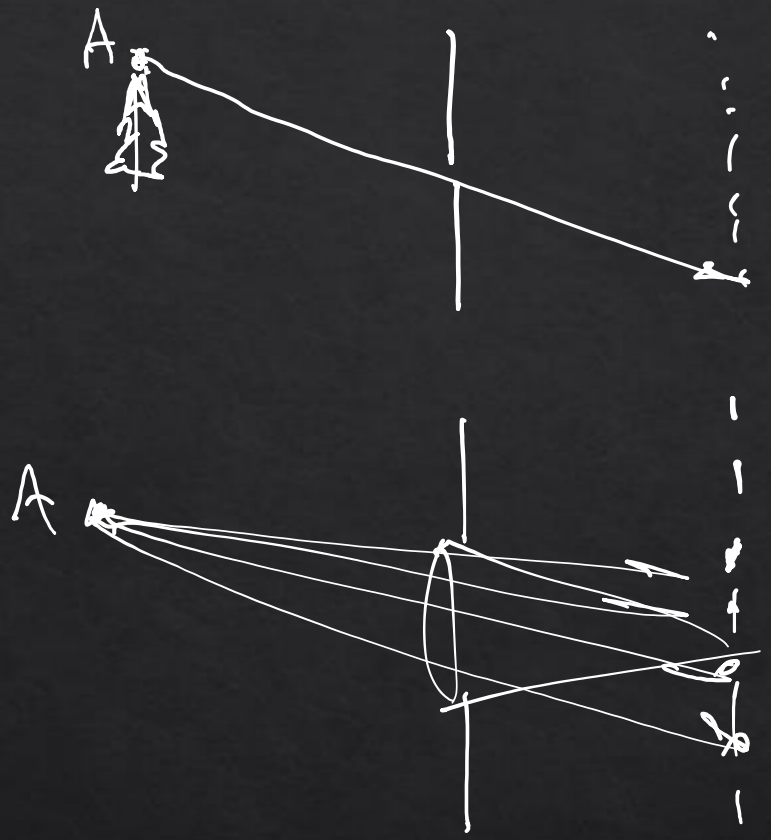
Why should you go?

- 112 of 119 Employers are specifically recruiting for Informatics Degree Disciplines (check the event guide)
- 94 Organisations have open graduate roles, 70 recruit for interns
- Talk to recruiters about: Jobs, Workplace culture, Assessment Process, Tips to make you stand out
- Need Help? Careers Service Staff on hand

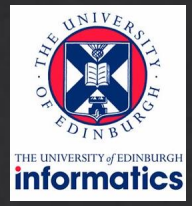


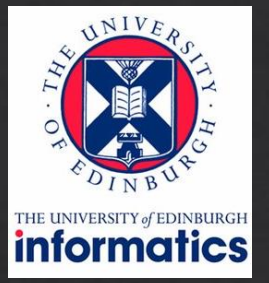


Clarification about lenses from last week's lecture



CW1 has been published



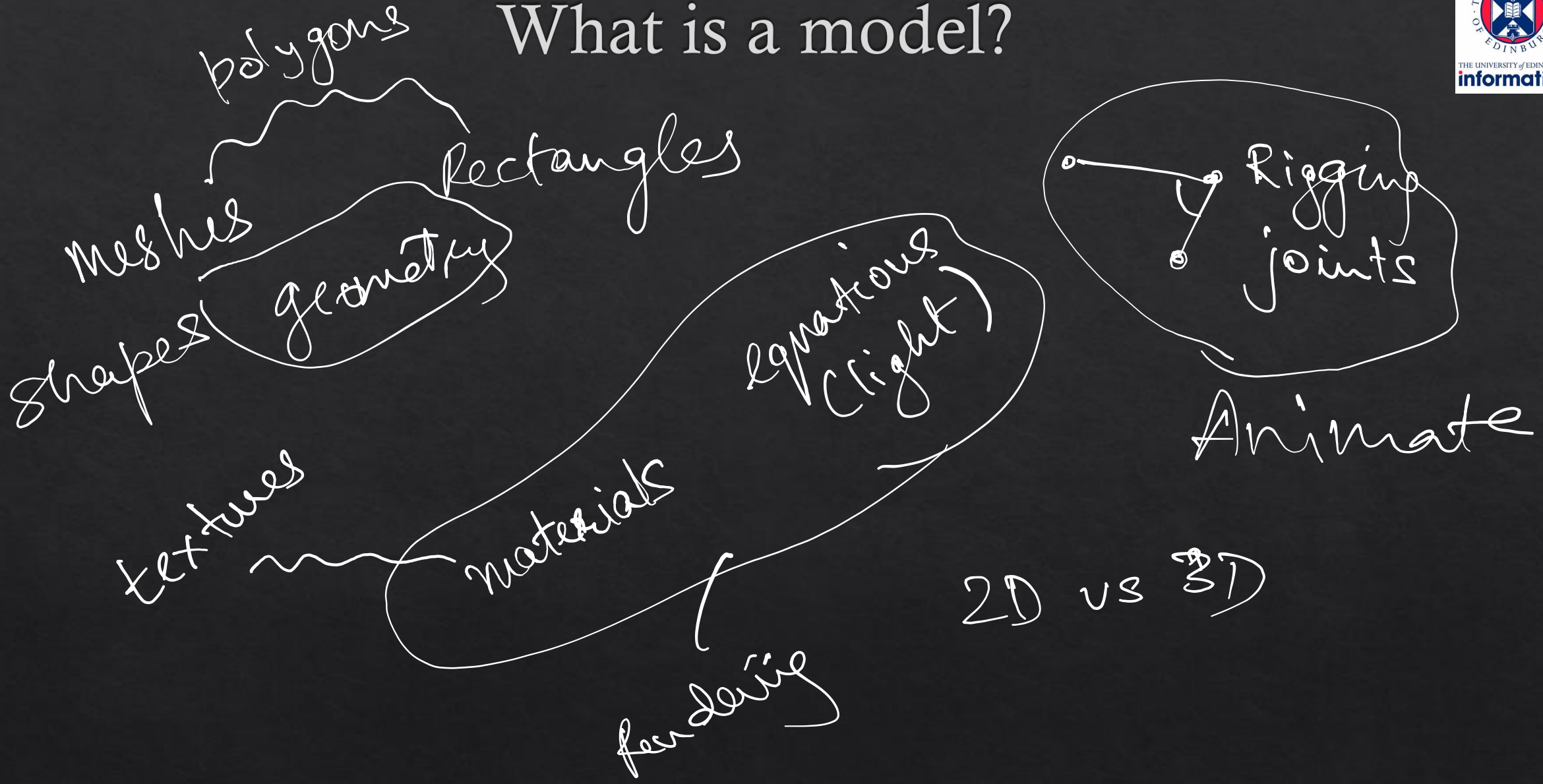


Computer Graphics

Lecture 4: Modelling

Kartic Subr

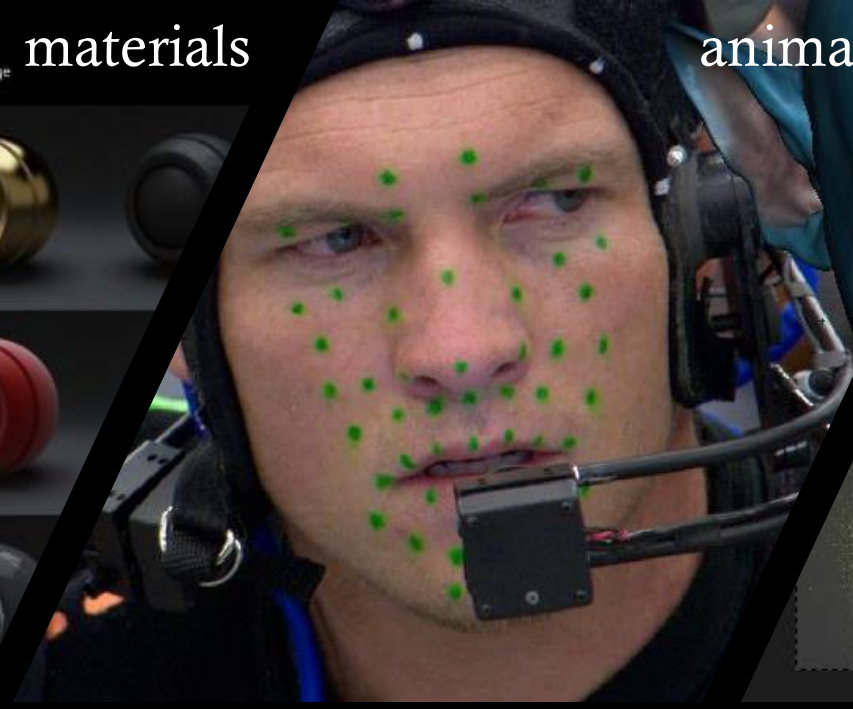
What is a model?



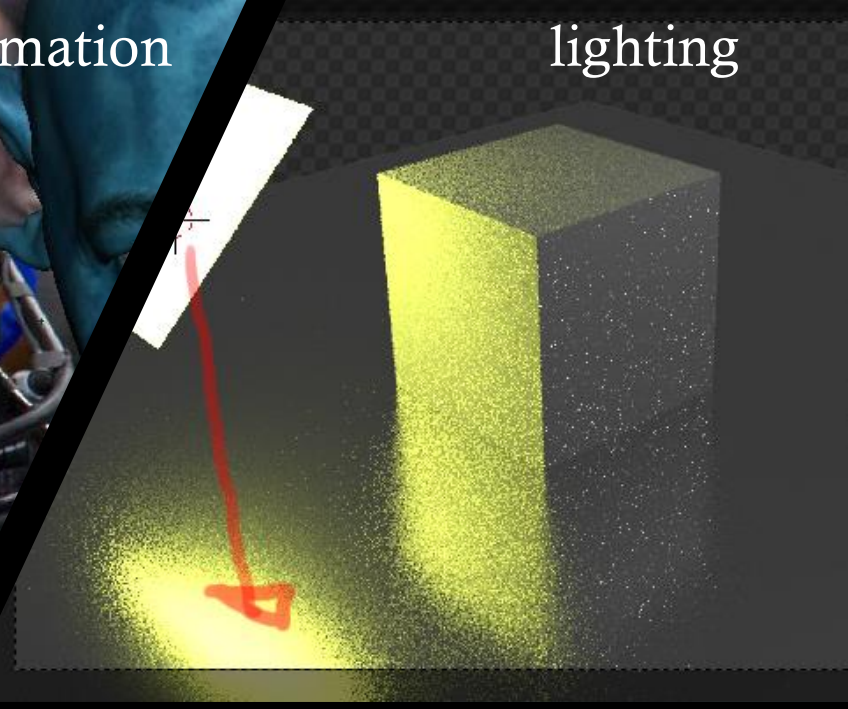
What is a model?

use (a system, procedure, etc.) as an example to follow or imitate.

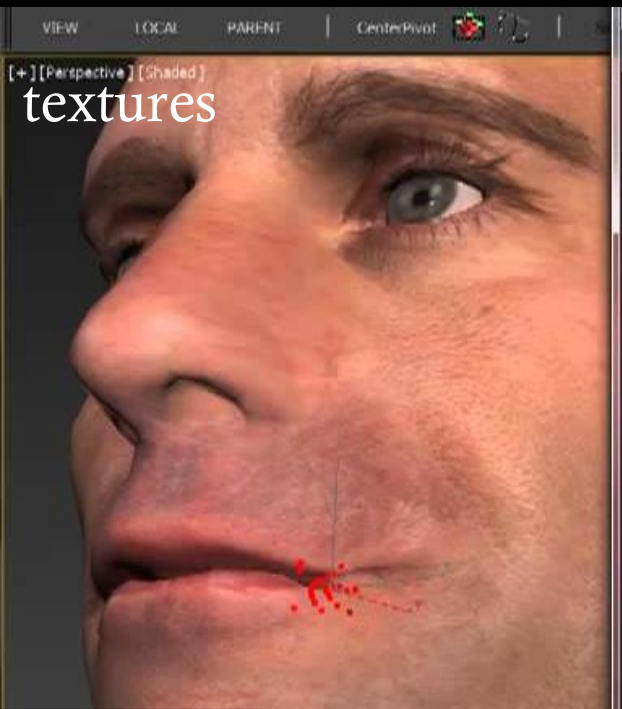
materials



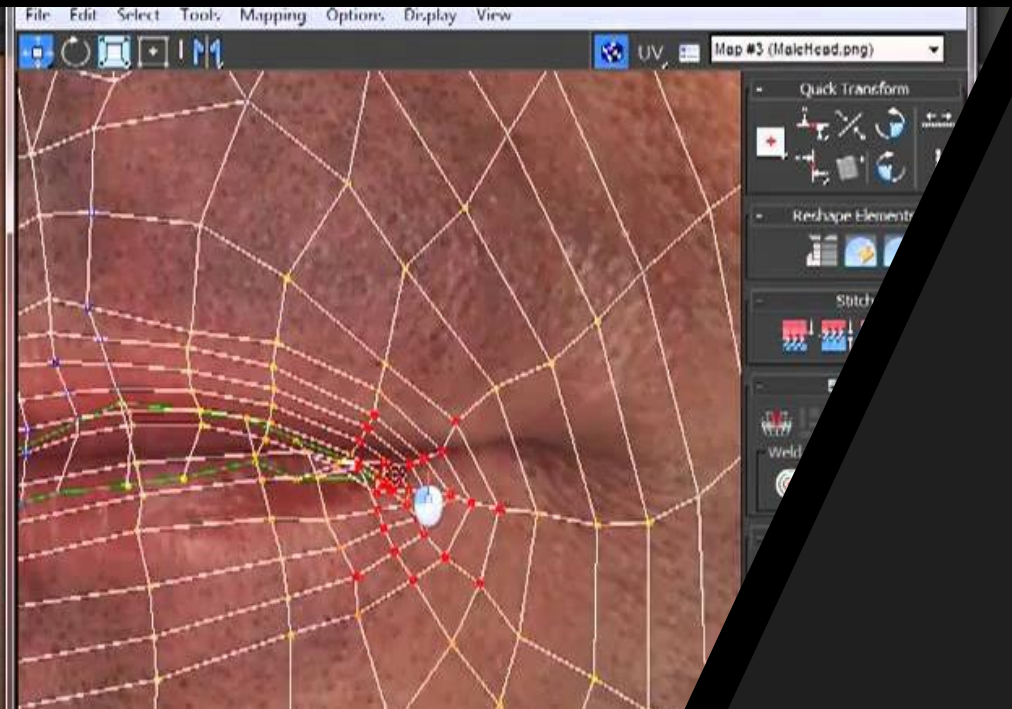
animation

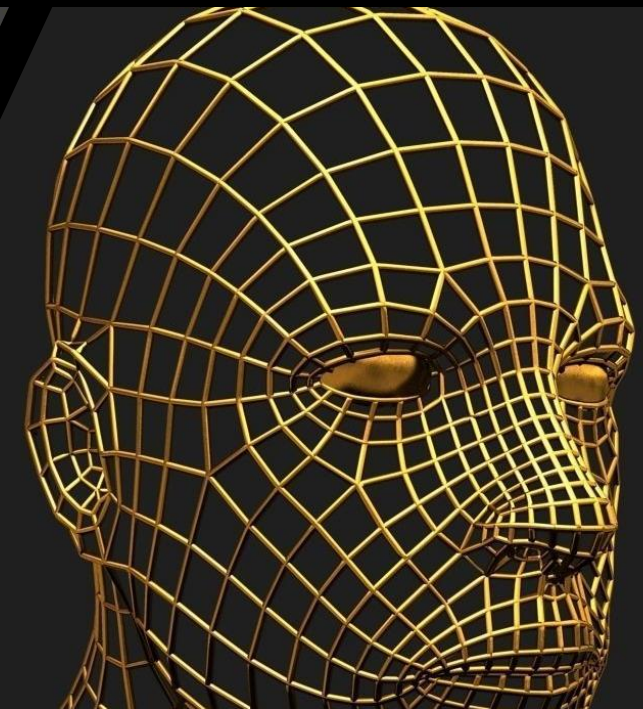


lighting



textures





geometry

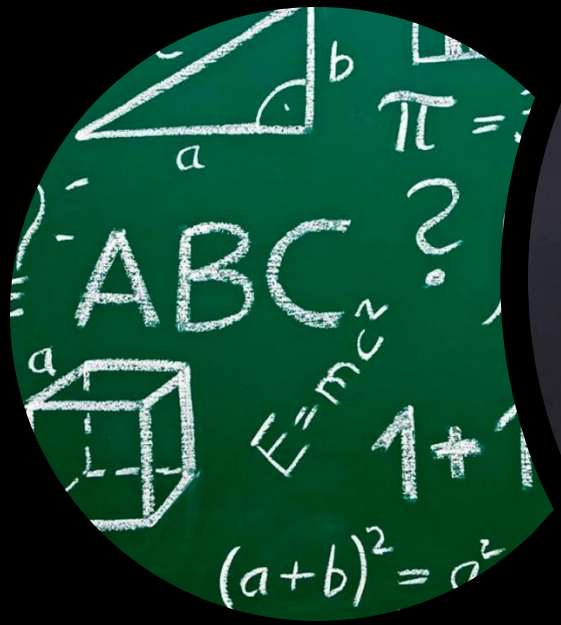
Search videos showing ‘effects breakdown’

https://www.youtube.com/watch?v=pTffQIFFYR8

Approaches to modelling

Artistic creation

maths



measurement

Approaches to modelling

Artistic creation

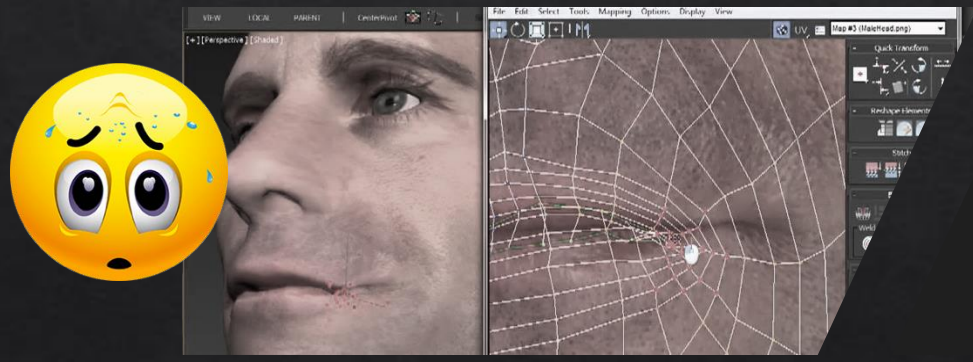
maths

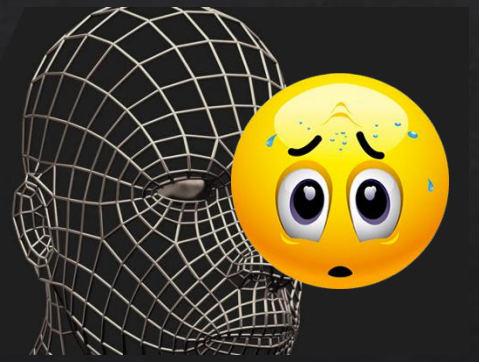
measurement

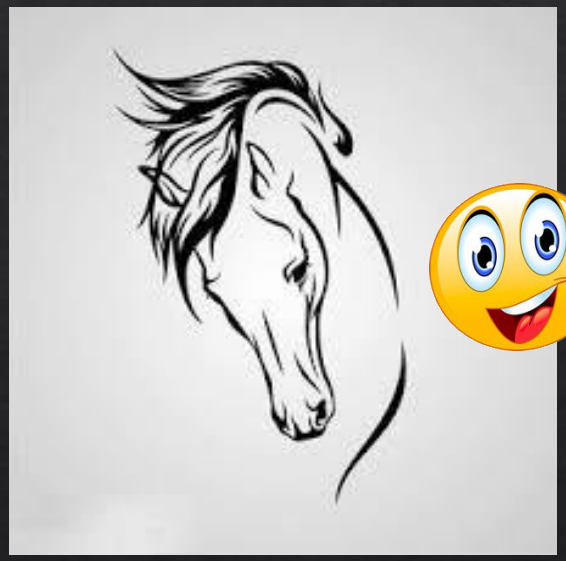
- Use physics
- Repeated procedure
- Analytical shapes (sphere)

- 3D scan
- Photograph
- Motion capture

manually created models



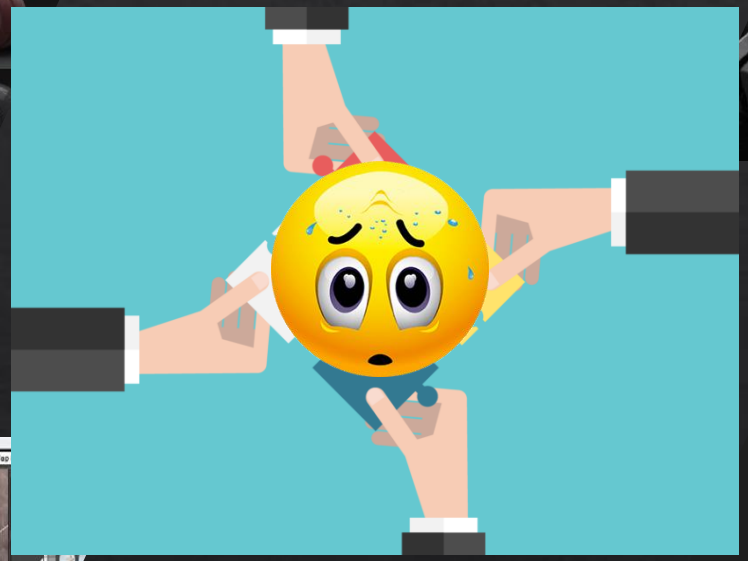


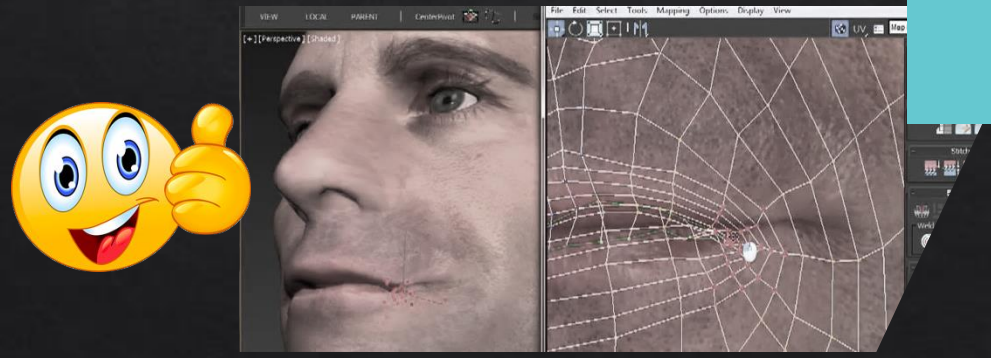


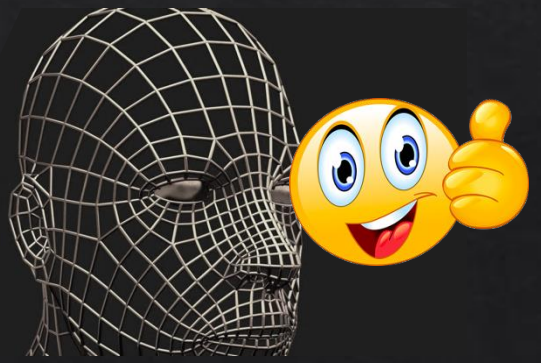
artistic expression

ABC
$E=mc^2$
$(a+b)^2$

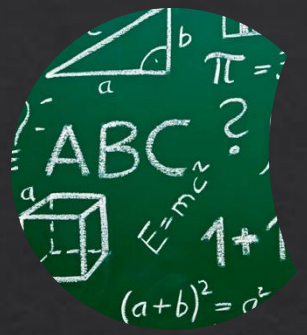
measurement



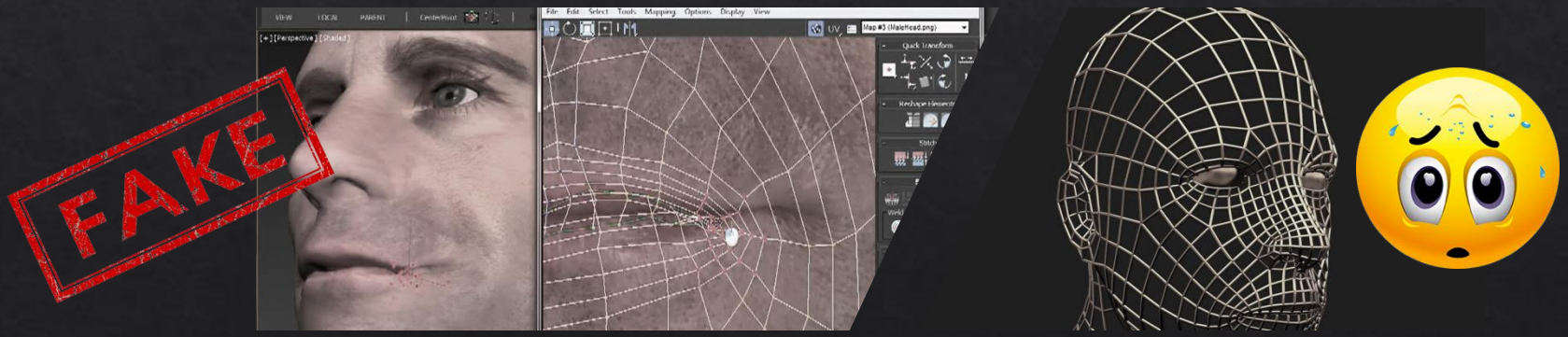




ABC
$E=mc^2$
$(a+b)^2$



mathematical models

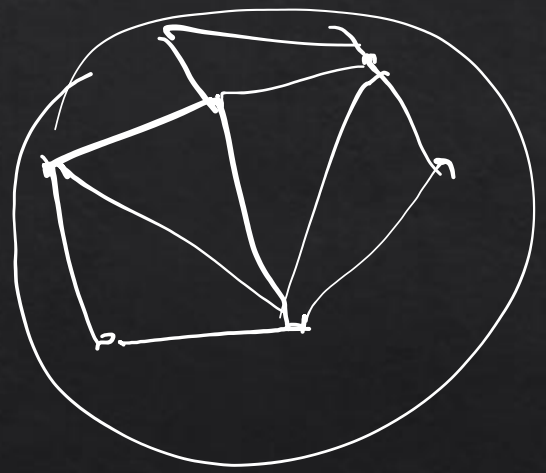


3D shape representations

- Implicit representation

$$x^2 + y^2 + z^2 - r^2 = 0$$

- Explicit representations
  - primitives
  - parametric



3D modelling – common approaches

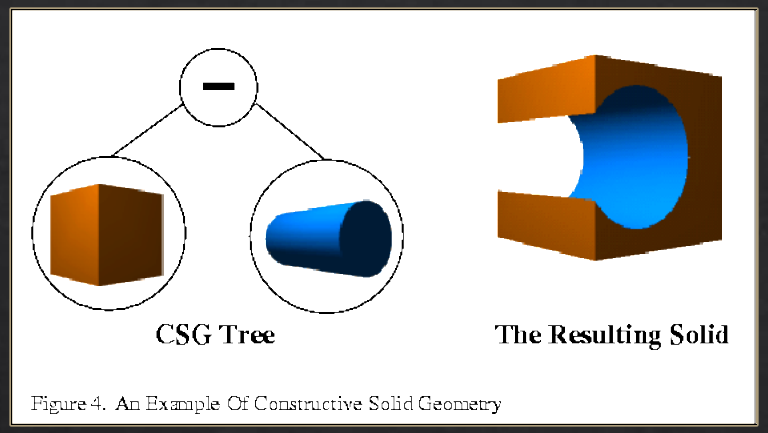
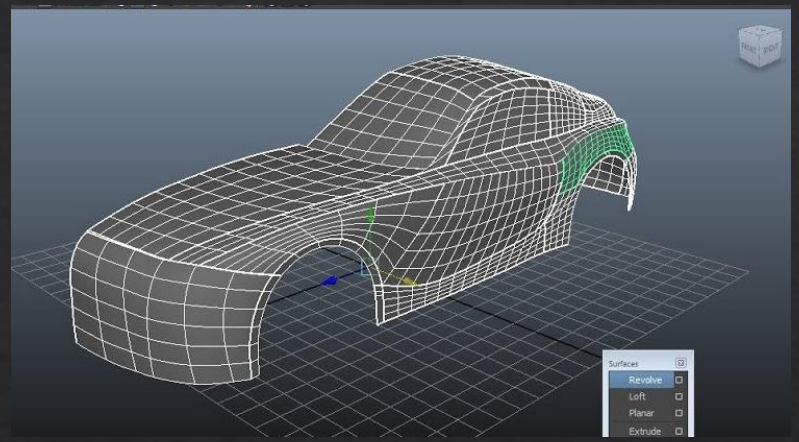


Figure 4. An Example Of Constructive Solid Geometry

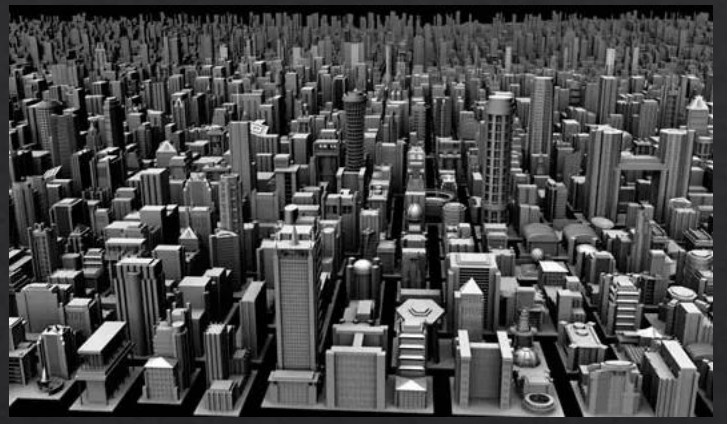
constructive solid geometry

https://www.cs.cmu.edu/~scoros/cs15869-s15/lectures/05-CSG_Procedural.pdf



parametric surfaces

http://www.inf.ed.ac.uk/teaching/courses/cg/lectures/slides16.pdf

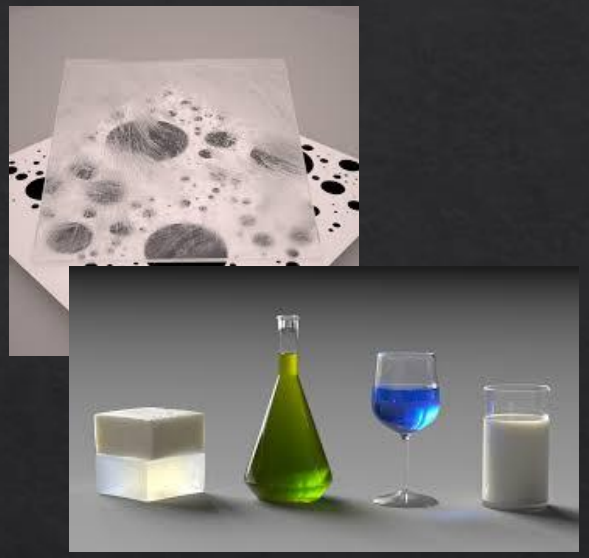


procedural modelling

https://www.cs.princeton.edu/courses/archive/spring03/cs426/lectures/16-procedural.pdf

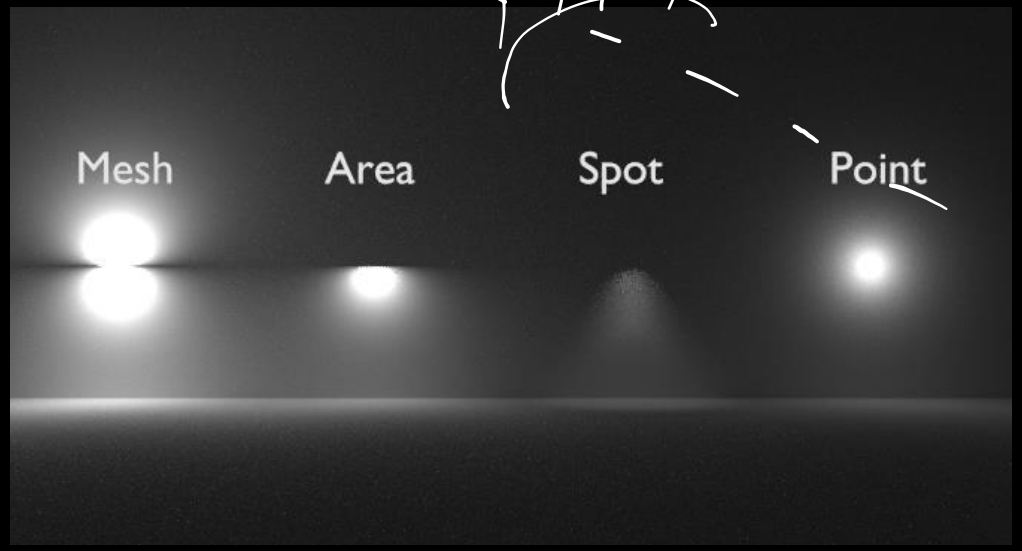
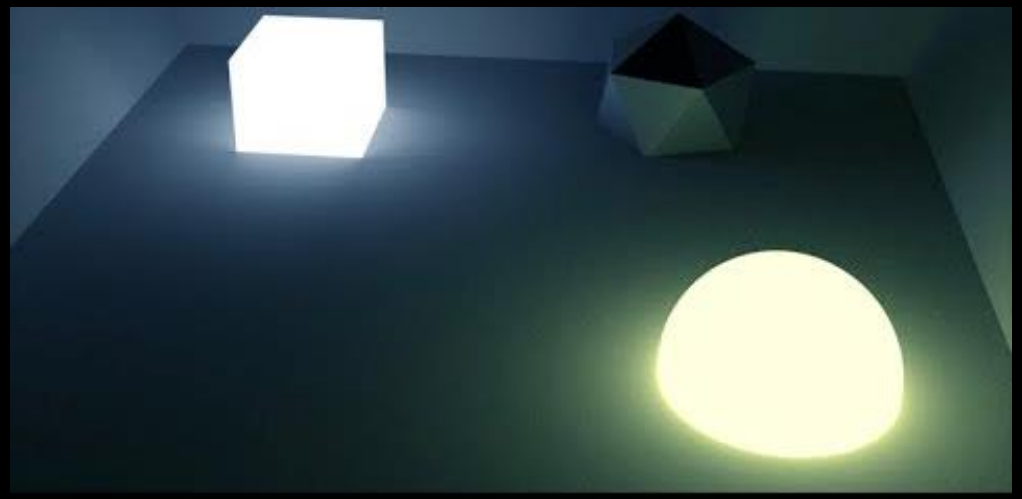
Materials – common approaches

measured



parametric e.g. ggx, bssrdf

procedural modelling

more about this, later in the course …

Lighting