

The future role of academia in the space sector: inspiration

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Why?

- Space has a unique potential to inspire and create positive change
- Universities, as multidisciplinary institutions, can play a key role

“Starry Night”: Van Gogh, 1889

“Earth rise”: Apollo 8, 1968

Hubble deep field: 1995



How: begin with core values

UCL's vision:

*Our distinctive approach to research, education and innovation will further inspire our community of **staff, students and partners** to transform how the world is understood, how knowledge is created and **shared** and the way that global problems are solved.*

Principal themes in UCL's strategy include:

- Accessible and publicly engaged
- Delivering global impact

Beacon for Public Engagement



Public Engagement Unit and
UCL Culture

How: enable and support

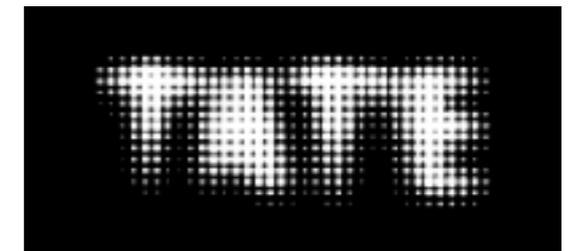
- Beacon for Public Engagement initiative and culture change led from the top
- Career progression
- Funding opportunities across disciplines from public engagement to public art
- Support, networks and training

Ensure staff and students are in an environment that nurtures and supports ideas, leading to activity and impact

Need consistency in approach and ethos from funding bodies

How: work in partnership

- Science Museum
- Nuffield Bursaries
- CREST awards (British Science Association's scheme for STEM project work)
- ASE (teacher training)
- Big Bang fairs
- UCL Widening Participation
- Guides/scouts/cubs/brownies
- National STEM Learning Centre
- Heritage Open Days
- Tate Modern
- Slade School of Art
- BBC
- Festivals: science, literature



Example I: schools

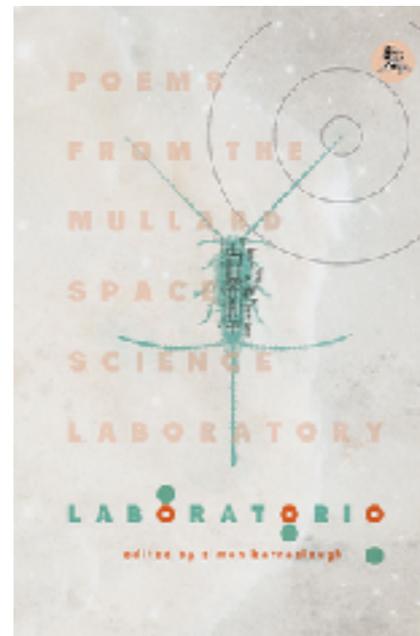
- **Orbyts programme:** several schools report 100% increases in the uptake of A level physics by girls. ~40 school students have published in professional journals.
- **MSSL annual summer school:** *“highlight was researching a topic that I have never heard of which made me really excited and hopeful for future use of this work”*
- **The UCL Academy:** secondary school in Camden sponsored by UCL, curriculum designed to inspire, strong interaction between school and university, STEM focus but with languages at heart of curriculum and a visual arts aptitude programme

Example II: art collaborations

Slade School of Art



Simon Barraclough



Lisa Pettibone



Joanna Griffin



Melanie King



Example III: co-designing courses

Using astronomy as an inspirational topic to teach skills in programming, collaboration and creative problem solving and inspire or rekindle an interest in science for those seeking jobs

Co-designed with A New Direction (a charity that helps people find jobs in the creative and cultural sectors)

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Final thoughts

- Opportunities for academia to ensure space continues to inspire:
 - across and between disciplines
 - across ages and backgrounds
 - informing life choices and career prospects
 - enriching our culture
- But it doesn't happen by accident
 - People need the right environment, support, funding, time and networks
- Be vocal about the role we can play in inspiring and what external support/change/partnerships may be needed
- Look backwards and forwards: keep stories and objects alive for future research/inspiration projects in partnership with industry and UK Space Agency