

Students in Public exemplar details

Faculty, School and Subject Area: University College for Interdisciplinary Learning

Course Unit/activity: UCIL24141 and 24151 Science, Technology and Democracy

Course Unit Director/activity leader: Kieron Flanagan, MBS

What is the assignment/knowledge product? [policy brief/blog post]

Why was it introduced?

The course unit explores science policy and science communication issues in the context of the broader place of science in our democracies – the aim of the assignment was to introduce a mode of written communication more reflective of the challenges of communicating science policy issues to complement the more traditional essay assignment.

Where is/could it be published?

The submissions are not published but as a co-editor of the science policy blog 'Political Science' on the Science section of *The Guardian's* website I do have the opportunity to publish any exceptionally good posts. There is also 'practice blog' in the Blackboard space for this course unit to allow for informal peer feedback on early drafts but in two years of running the unit no student has so far taken advantage of this.

What are the challenges (e.g. copyright)?

As I understand it students retain copyright in their own submitted work but are required to issue us a license in order to submit it to Turnitin. In the situation that a post was to be published at the Guardian this would also be the case – the author would retain copyright.

What are the student perceptions/responses/attainment?

Students seem to like the assignment (especially the blog post variant). However there may be a perception that it is somehow easier than a traditional essay – I try to communicate clearly that my expectations regarding the demonstration of learning from the course are the same as for the essay assignment and have spelled out the kinds of ways I would expect the blog/brief to demonstrate that learning.

If published, how do you monitor use of the resource/s?

This has not arisen so far.

Any other comments

Overview

*The Large Hadron Collider at CERN cost £4 billion to build, of which the UK contributed £500 million. Why do nations choose to spend such large sums on fundamental science? How do they decide what to fund, and what say do citizens get in these decisions?

*Who should make decisions about the classification of illegal drugs or the safety of a new technology politicians or scientific experts?

*What does the emergence of China as a scientific and technological powerhouse mean for a relatively small country like the UK?

*Why do some scientific findings prove so difficult to replicate? Is fraud in science on the increase?

*Why are the findings of some studies suppressed by powerful companies? Does business have too much influence on science?

Science and technology (S&T) are central to the public policies and self-image of modern advanced economies and rapidly industrializing/less developed countries alike. This course unit explores how and why this has become the case, and what the implications are for our societies, our politics and our economies as well as for the still growing and increasingly globalised scientific enterprise itself.

We will look at the changing role of the state in relation to science and technology and current trends in the governance of S&T, such as demands for the stronger steering of research agendas towards political, economic or social priorities; for more accountability for the efficient and effective use of public money spent on science; and for more commercialization of research. We will look at the role of scientific expertise and experts in public policy and regulation; efforts to improve public engagement with and participation in science and technology decision-making; efforts to encourage responsible research and innovation; and current issues in science such as reproducibility, fraud and 'open science'.

An understanding of the issues explored in this course unit is critical to citizenship in a modern technological democracy. It is also widely applicable in analysis, policy and management roles in science-based industry, research and scientific organisations, government, public agencies and international organisations, NGOs and consultancies, as well as in science communication and public engagement roles.

Learning outcomes

- Show an understanding of how the State became involved in funding science, and the changing rationales used to justify that funding, and associated debates;
- Show an awareness of the scale and complexity of the 21st Century scientific enterprise and its globally distributed nature;
- Show an appreciation of the specificities of science policy and the key challenges that stem from these features;

- Show an understanding of the wider role played by science in public policy and regulation, and associated political, economic and ethical debates;
- Show an appreciation of key contemporary issues in science/technology/society relations.

Intellectual skills

- Recognise, critically evaluate and deploy as appropriate relevant theories and concepts;
- Understand the role of interests and ideologies in shaping the positions taken by actors in relation to public policy debates about S&T;
- Undertake research reflexively and responsibly;
- Engage critically with the research of others, as well as respectfully and constructively;
- See the 'bigger' picture of contemporary S&T and understand how we have come to this position.

Practical skills

- Identify and interrogate the positions taken by actors in debates and discourses around science policy, understanding the interests and motivations that come to play;
- Show some practical appreciation of how to engage with policy processes;
- Communicate clearly about science and society issues with both a scholarly and a policy/public audience;

Transferable skills and personal qualities

- Oral and written communication skills for specialist and generalist audiences;
- Ability to analyse and synthesise theoretical and practical information.

Assessment methods

Coursework essay, 1,500 words (60%)

Policy brief or blog post on a current science policy issue, 600-800 words (40%)