Experiences in Digital Learning Webinar

A Climate Change Curriculum:

How? What? When? And for whom?

The Centre for Online and Digital Learning (CODE) at the University of London has run regular webinars under the strapline 'Experiences in Digital Learning' since the first coronavirus lockdown in 2020. The current set of webinars, covering the academic year 2023-4, is therefore the fourth such series. The topic for the second of these, held on January 25th, could hardly have been more important or timely: how should we, as distance-based and digital educators, teach the vital issue of climate change?

This webinar was unusual in that it featured one of the research projects funded by CODE. The project 'A Climate Change Curriculum' ran from October 2022 until September 2023. The speakers included two of the three CODE Fellows who formed the project team, **Dr Gwyneth Hughes** from the UCL Institute of Education (who also acted as chair) and **Dr Pete Cannell**, an educational consultant who previously worked at the Open University in Scotland. Two further speakers, **Dr Elizabeth Burns** from the University of London and **Dr Shanon Shah** from Kings College London, presented a case study from the project on how climate change impacts, and is taught in, their own discipline: divinity.

Gwyneth began the webinar by introducing all four speakers and then an introductory activity. She asked participants to write short answers in the chat to the question: '*What do you think is the main purpose of climate change education at university?*' The answers she received were many and varied: preparing students for the future and for planning their careers, raising awareness, countering misinformation and providing students with the means and the ability to take action. They had one thing in common, however: they were all very student focused.

Pete then highlighted the 'preeminent importance' of the topic by quoting the stark fact that this year is likely to be the one in which the agreed 1.5°C threshold for limiting the worst effects of climate change is breached for the first time. Global heating will affect all aspects of society and of our lives, so it is crucial that our students are prepared for the world in which they will be living. They are already aware of the problem: 90% of students in 2021 admitted to being concerned about climate change, compared to 74% only seven years earlier. Many universities have launched sustainability strategies, but it is recognised that distance-based students are unlikely to have the same opportunities for extracurricular activities as their campus-based peers. Furthermore, some of those distance learning students will be based in countries where the impact of extreme weather events has already been felt more severely than in the UK.

He then handed back to Gwyneth to point out that putting climate change on the curriculum may be necessary, but it is not at all straightforward. She identified four reasons for this. Firstly, it is interdisciplinary, covering politics, economics and even psychology as well as environmental sciences. People with very different expertise will need to come together if it is to be taught at all adequately. It also poses challenges in epistemology (the study of knowledge) because of the level of uncertainty involved, controversy over how we can best respond, and the behaviour of climate denialists and now delayers. It is pedagogically challenging because it is both scientifically complex and emotive, and, finally, it poses numerous ethical difficulties including the stark inequalities of climate change:

how the countries and communities that have done least to cause it are suffering most from extreme weather and will, in turn, find it hardest to mitigate its effects.

This CODE project was designed to help educators in distance learning to get to grips with these complex issues and to embed climate change in their curricula in a discipline-appropriate way. Pete explained that it had four parts:

- A literature review of climate change teaching in higher education
- An exploration of how distance learning programmes at the University of London are already addressing climate change in their curricula, and how this can be developed
- A small-scale survey of eleven directors of distance learning programmes at the University, and interviews with a subset of them
- A case study of one of these programmes

The findings from this project will be published in a report on the CODE website. A short briefing note has already been published there; this largely consists of an annotated list of open-source resources on climate change that have been reported to be adaptable and useful for teaching.

Gwyneth then described the main outcomes of the project. They had found a complete consensus among educators that universities had a responsibility for teaching all their students about climate change. However, there was much less consensus about how: in particular, whether there should be separate, compulsory climate change modules or whether it should be embedded into all parts of the curriculum and, if so, whether this should be in depth or more superficially. At present, 73% of those surveyed reported promoting discussion on climate change as part of their curricula, about half formally and half informally. Several noted that there could be a particular problem with distance-learning students as they knew less about their interests outside the academic sphere. A minority of campus-based students, and a minority of staff, were engaged enthusiasts who were fully involved in, and taking action on, the issue. Staff who fell into this category had no difficulty in making links with their disciplines but even they felt that they needed more suitable materials. This can be a particular challenge in distance and e-learning, as our awareness and knowledge of this topic is changing so fast that it is difficult for anyone to update web-based materials quickly enough. Many of those surveyed considered that delivering the climate change education that is needed, particularly at a distance, would require a team of expert, dedicated support staff.

She then introduced **Elizabeth** and **Shanon** to discuss a case study of how they had made changes to incorporate climate change into the divinity curriculum.

Case Study: Divinity and Climate Change at the University of London

Elizabeth began by saying that this case study, too, had four parts:

- Evaluating how climate change fits in with the overarching aims of their programme
- Discussing the light-touch approach that is currently used
- Evaluating the student response to this and explaining what has been helpful and challenging
- Exploring what else they would like to do, and the support that they would need

The online divinity programmes at the University of London offer students a flexible way of studying religion and how it interacts with other aspects of life, culture and politics. Elizabeth suggested that religions can be influential in changing people's thoughts and actions in relation to climate change (and to other overarching ethical issues). She cited a few examples:

- The World Parliament of Religions published a declaration, 'Towards a Global Ethic' (1993) that stated that the world cannot be changed for the better unless we achieve a 'transformation in the consciousness of individuals and in public life
- In the Catholic tradition, Pope Francis has published two encyclicals, 'Laudato Si' (2015) and 'Laudate Deum' (2022) outlining features of the environmental crisis and appealing to the notion of the common good. He has quoted African bishops who described climate change as 'a tragic and striking example of structural sin'.
- The Christian conservation charity A Rocha in the UK offers the Eco Church programme with three levels of awards to churches who can demonstrate care for the climate in terms of their worship, stewardship of their buildings and land, community and global engagement, and encouraging responsible lifestyles. Andy Atkins, CEO of A Rocha UK, has stated that churchyards are some of the least polluted places in the UK.

Non-Christian religions are also involved. Shanon is a Muslim and a part-time director of Faith for the Climate, a charity that aims to 'encourage, inspire, and equip' members of all religious communities to take action on the climate crisis. Through the Heythrop Association, he led a popular webinar on faith and climate justice prior to COP26 in Glasgow in 2021. He described how he teaches climate change within modules on religion and science and on ethics. It is mentioned peripherally in some other modules, including Islamic law – which touches on the connection between human behaviour and environmental degradation – and interfaith relations. He lists climate change among the dissertation topics that he is willing to supervise, and as he also works professionally in the climate sector, he has many examples to hand. What he most lacks is the time to audit his materials, keep them up to date and make everything available on the VLE.

Elizabeth then described some of the goals that had arisen from the case study. They would like to run an event connecting religion and climate change, either online or at Senate House. There is a clear need for further resources, including student readings and assessments, and as theirs is a small programme this will need technical assistance and funding.

She then handed back to Gwyneth for, firstly, a short discussion of one key issue: the relationship between climate change and education for sustainability and development. These are clearly linked through, for example, the Sustainable Development Goals but climate change is beginning to be recognised as an existential threat that affects everyone, not just the developing world.

The delegates were then split into six breakout groups to discuss how they address climate change and these related issues in their own teaching, how these might be developed further and what obstacles and enablers there are. An interesting short discussion followed the breakout groups, with delegates highlighting how the topic was covered in very different disciplines and situations. Several people mentioned how they were in a very privileged position compared to students who were perhaps on 'the frontlines of climate change', which could make dialogue harder. It is not always easy to see how climate change can fit into specific curricula, as in my own discipline of the molecular biosciences: I was interested in one colleague's suggestion that I look at it through the lens of emerging tropical diseases 'crawling north' as our hemisphere warms. Other delegates, including one from Botswana, suggested that student enthusiasts could form a 'club' across the globe for online discussion that would cross geographical as well as disciplinary barriers.

Gwyneth concluded a fascinating webinar by highlighting this particular point: climate change is a truly global issue and it can only be addressed if all involved – educators and students among others

– work through cross-global partnerships and relationships. Above all, she said, we need to keep talking, and to pool skills, capabilities, ideas and resources. She highlighted two such free resources that had been posted in the chat: one on the Open University's OpenLearn on supporting climate action through digital education, and one on FutureLearn, on educating for sustainable development.

The next webinar in this series will be on Thursday 7th March, also at 14:00 GMT, and will cover the important topic of digital education in medicine and healthcare.