



Climate Change and Sustainability Open Educational Resources: Lessons learned and challenges to tackle

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The UK's Higher Education Academy Subject Centre for Geography, Earth and Environmental Sciences (GEES) is currently running a project entitled 'C-Change in GEES: Open licensing of climate change and sustainability resources in the Geography, Earth and Environmental Sciences' as part of a national Open Educational Resource project. The C-Change project aims to explore the challenges involved in 'repurposing' existing teaching materials on the topics of climate change and sustainability to make them open access. This project has produced an open access resource of diverse climate change and sustainability-related teaching materials across the subjects of Geography, Earth and Environmental Sciences. The process of repurposing existing face-to-face teaching resources requires consideration of a wide variety of issues including the Intellectual Property Rights (IPR) associated with images and other material included in the teaching resources, in addition to issues of quality, accessibility and usability of resources. Open access education is an issue that will have implications across the whole of the organizational structure of a university, from legal advisors with commitments to University research and enterprise activities, to the academics wishing to produce open access resources, through to all levels of senior management. The attitudes, concerns and openness to Open Educational Resources of stakeholders from all positions within a HE institution will have implications for the participation of that institution within the OER movement. The many barriers to the whole-scale adoption of Open Educational Resources within the UK Higher Education system and the willingness of UK Higher Education Institutions to engage in the OER movement include institutional perspectives on the IPR of teaching materials developed by members of staff within the institution and financial viability, in addition to more sceptical attitudes of potential contributors.

Keele University is one of seven academic partners in the C-Change project and researchers at Keele have produced open access resources across a wide variety of sustainability-related themes from reconstructing past environments (for example sea-level change); regional impacts of predicted climate change (for example implications to permafrost environments); through to strategies for a sustainable future, including topics on greening business and engineering solutions. The resources range from PowerPoint presentations to image banks, reading lists, and suggestions for classroom and coursework activities. These resources are designed to be useful for other higher education practitioners developing teaching resources in this area. This presentation will present the range of open access resources developed at Keele University in addition to the lessons learnt in repurposing resources for open access, and a summary of different attitudes within Higher Education Institutions towards the OER movement.