ARGnote

Encouraging researchers to work across disciplines by creating an online networking tool

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Overview

The challenges facing society over the next 100 years cannot be solved in isolation but are interlinked across disciplines. The challenges of health cannot be solved by only a clinician: Economists are needed to understand the financial burden, engineers are needed to understand the impact of the built environment and psychologists are needed to understand our behaviours. We must work across traditional disciplinary divides in order to meet the challenges.

Key Findings

- The creation of an online networking tool for research ideas has changed the way many staff within the university work and the nature of the work they undertake.
- Crucible has increased the funding of the university and has enhanced the links between the departments and faculties.
- The financial support Crucible offered is no doubt an enticement for many but it does not account for the majority of the website's usage.
- As a result of our experiences we would recommend other research-centric institutions adopt this mode.

Aims & Objectives

This note explores how Crucible worked to encourage multidisciplinary research at UCL, specifically looking at the online social networking platform for research ideas that was created.

Background

Crucible is a research centre which aims to support researchers who want to engage in research about lifelong health and wellbeing with others from across the university.

Researchers wishing to undertake multidisciplinary research face two serious risks in comparison to those pursuing unidisciplinary research. First, there is a real risk that peer reviewers will not understand the significance of the combination of disciplines as a way of investigating the problem and see only that 'their' discipline would not be advanced through the research in question so that the innovatory advance from combining the disciplines is not understood. Secondly, because there is likely to be little record of similar investigations in the past, there is no evidence in the literature that such an approach would be valid. By providing support at all stages from initial idea conception through to external funding submission, Crucible aims to remove some part of these risks from researchers and therefore to reduce some of the barriers to creating innovative solutions and exciting ideas to tackle some of society's biggest challenges.

Apart from the risks which arise once an application is submitted for funding, participating in multidisciplinary research within a university environment faces two major challenges. Firstly, finding collaborative partners outside one's own discipline and often outside one's network who are prepared to join the project. Secondly, it is not easy to obtain funding for multidisciplinary research. Multidisciplinary projects are easily dismissed by research funders as being too high

risk or outside of their remit. In this way many quality research ideas fall through the cracks between the remit of two funders. Given the limited time researchers have to dedicate to fleshing out and writing grant proposals the investment in these projects is heavy considering the likelihood of success. These two challenges can form a barrier for many researchers and extra encouragement is often needed to pursue these types of high risk ideas.

In order to overcome these challenges Crucible needed to encourage staff to look beyond their usual remit and outside of their usual networks. Most staff are already working across disciplines to some extent but this often only means that two disciplines with overlaps were working together (for example, a geographer working with an urban planner). Crucible wanted to extend this to allow researchers to gather knowledge from sources they would not otherwise search. Most staff will have been educated in a somewhat unidisciplinary way and some – particularly those at the frontiers – find they need knowledge from one or more other disciplines in order to proceed.

Methods

The Crucible website (www.ucl.ac.uk/crucible) creates a virtual space where UCL staff share research ideas in a secure environment. Protected by UCL ID and passwords, only members of UCL can access the ideas. Users of the site can post ideas for discussion, comment on ideas of others, upload and download documents, talk privately to members and search for collaborators.

The website created is an academic social networking tool with an emphasis on ideas rather than individuals. An idea can evolve on the website from an idea to a project. The website allows for discussion between researchers, documents to be uploaded and has a service for the idea to be submitted for funding from within UCL.

The first step is for members of Crucible to place a small synopsis of their idea on the website. The idea is visible as a post-it note with a title. Viewers can then click on the title to view a brief synopsis. They have the option to join in a discussion of the idea with the creator of the idea as well as other interested parties. Once an idea has attracted potential collaborators its creator can choose, if

they wish, to close the idea from university-wide view and discuss the idea with the potential collaborators in a private setting. This means that the idea is still being worked on online but only those with a stated interest can see and join in discussion and documents as the idea is fleshed out into a viable grant proposal. However, the small synopsis is still visible to anyone, allowing for potential new collaborators to express interest and be included at a later stage if needed.

Each idea is in the control of the "idea leader", the staff member who posted the idea online. Only the idea leader can edit the synopsis, change the privacy setting, invite members to join a closed discussion or apply for feasibility funding. When the idea is posted on the website it is date stamped, providing some evidence of the origins of the idea. This control ensures that the idea leader feels confident that they are in control of their own idea and its subsequent evolutions.

Idea owners are eligible to apply via the website for small funding (usually around £5000) for feasibility studies to develop their idea towards submission to a larger external funder. These can be used, for example, for a literature review or feasibility analysis through experimental work in order to provide the evidence that the proposed research would be worth pursuing. The process is done entirely through the website. The decision to fund the idea is made by a small peer review panel from across Science, Humanities, Medicine and Engineering.

Results

Crucible was funded by the UK Research Councils between 2008 and 2013 through the Lifelong Health and Wellbeing Programme. During this time it provided financial support to 16 projects which formed on the website. These projects have led to over £16million in external funding from research councils, charities and other funding bodies. Although Crucible currently cannot provide financial support for those with ideas because the Research Council funding has ended, the website is still available as a place to find new collaborators and discuss new ideas.

Future Research Areas

Ensuring this new approach to multidisciplinary research is embraced by the next generation of researchers. A future related ARGnote will explore case studies from research projects and PhD projects which have evolved from Crucible.