

## **Interdisciplinarity and the Future of the Research University**

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Professor Frodeman during his presentation gave an overview of the theory of interdisciplinarity that he has been working on for a number of years.

He started with a brief on disciplinarity where he has pointed out that many academicians have the sense that the age of disciplinarity is ending. Disciplines are useful and efficient in any number of ways. You cannot study everything at the same time. Therefore, to break things down into units is a logical and pragmatic thing to do. However, what is ending is the age of disciplinarity. Disciplines will continue with the idea that scientists have already fulfilled their mandate within respected disciplinary fields and have to move forward. This turns on a misunderstanding of thinking that the concept of a discipline is an epistemic category. There is a naïve realism across the academy that the units that we study in universities match the units of the universe: we see rocks and there is geology, we see animals and there is biology. Therefore, you have biology and geology as separate units. However, if you look within a geology department you have experts in both palaeontology on one hand and atmospheric physics on the other – both could be placed in other department, other fields. If you push this through, it turns out that disciplines are not epistemic in nature but political, economic and rhetorical devices. Rhetoric is a matter of audience and what defines disciplines is whom you are talking to.

Professor Frodeman made it clear that today scientists are no longer judged only by their peers but also by people outside their discipline. This is happening firstly because of political pressures. The fact that leads to increasing demands for accountability. The second reason for this change is technological pressure. Today if you are in need for information you will not go to university or library you will look it up on your phone. Knowledge production is moving more and more off the campus. Google has the same number of people having a PhD as does Stanford University. This means that we are experiencing a moment of closure of the disciplinary research university. Academicians will no longer be simply disciplinary because they are going to have to interact with users groups all across the society and be judged by these groups. The third reason is the failure of the model where science creates a neutral reservoir of knowledge isolated of policymaking. For Frodeman, the Modern Research University 'has never been modern' (Latour) because of its attempts to separate one discipline from another, university from society have always been destined for failure. The change is that social and technological pressures today is making this increasingly obvious.

All the changes that we are experiencing today indicate that we are witnessing the end of Modern Research University as we know it and what comes next is unclear. However, Professor Frodeman gave some hints on where the Postmodern Research University may be going. According to him, interdisciplinarity should be considered as the central remit, the central job of philosophy and the humanities. In terms of the anthology of the knowledge production, we should have experts in universities who would look at the whole and try to understand how all those pieces fit within. Because there are social, ethical, metaphysical issues everywhere, we should break up departments of philosophy, literature and history and scatter those experts across all the disciplines.

According to Frodeman, the interdisciplinarity does not consists of mastering other disciplines, or mastering an interdisciplinary methodology, but in being proficient with some rules of thumb, a set of virtues, and political skills. To implement interdisciplinary approach there has to be some kind of interactional expertise and recognising of limits to our knowledge. If we want to work with people outside our field of expertise, we have to be ready to be open-minded, to look stupid in front of our disciplinary peers, and to be lifelong learners. Therefore, the modern university should have a series of disciplines in natural and social sciences and humanities which are the generalists thinking about the larger implications of knowledge production and

serving as a bridge, the integrators, the translators between the research university and the larger world. Interdisciplinarity shows the limits to knowledge production; it implies the relative loss of academic authority.

As an environmental philosopher, Professor Frodeman proposes to think about interdisciplinarity in terms of sustainability. Sustainability studies treat economic, societal and environmental sustainability but there is a fourth type of sustainability that has to be added to this list. Because of a flattening of knowledge culture, the academicians have to be able to answer the question: is the knowledge production pertinent? For example, we should stop funding environmental studies not because they are wrong but because they are right and all the money that are spend on the environmental studies have now become an excuse for politicians not to make hard choices. Therefore, the fourth sustainability, epistemic sustainability is learning to do with less, to stop being experts and to start being translators and integrators. The situation now is not sustainable. Academicians produce articles, which few read. 86% of all papers published in the humanities are not cited in first five years after publication. The age when scientists produce without understanding the real demand is coming to its end.