

BEYOND THE CONFLICT OF THE FACULTIES: A NEW INSTITUTIONALIST CASE STUDY OF THE FOUNDING OF A RADICAL TRANSDISCIPLINARY ART/SCIENCE/TECHNOLOGY PROGRAM

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This paper introduces a critical study of the ideas, agencies and structures involved in establishing an innovative transdisciplinary degree program. Drawing on interview data, it develops an account of the day-to-day lives, experiences and practices of academics, students, practitioners, administrators and other stakeholders operating in increasingly institutionalized electronic arts/science/technology environments.

In 2005, Auckland University of Technology drew together four existing Schools (Art & Design, Communications Studies, Computing & Mathematical Sciences, and Engineering) into a new Faculty of Design and Creative Technologies. In 2007, the Faculty formed an Interdisciplinary Unit to build new experimental research and learning experiences across these overlapping disciplines. The new Bachelor of Creative Technologies degree discussed here is a key part of this larger Faculty project.

Over the last decade there has been renewed interest in interdisciplinary education (Chandramohan & Fallows 2008). However, there have been relatively few explorations of the experiences of academics and students in such programs, or of how they actually learn across changing epistemological boundaries (Robinson 2008). This task would seem to be important, especially given the differing motivations for interdisciplinary research; ranging from top-down imperatives from administrators seeking efficiencies, to researchers' claims for new paradigms that might address the complex challenges of a new century, to a variety of bottom-up, experimental approaches by academics responding to ontological and epistemological shifts or new career opportunities.

Over the last decade too, the dynamic and uncertain conditions of creative practices within a globalized economy have begun to attract serious academic attention. However, much less research has focused on corresponding changes in the institutional environments within which academics now operate. The changing conditions and managerial strategies of higher education have resulted in new divisions of intellectual labour; within which individual academics and students have become increasingly isolated and ever more accountable.

In light of these developments, this paper addresses what educational theorist Ronald Barnett calls "ideologies of calculation" that have come to circumscribe practices within the new university (Barnett 2003:18). These ideological discourses limit how contemporary institutional frameworks can be seen - not only in relation to any academic tradition or professional agenda but to education and intellectual life more generally. Thus, there is a need for debate to be framed within a context of radical change in higher education policy since the 1990s. Three interrelated inquiries are woven through this paper.

First, what are the characteristic qualities of this new institutional field and how (well) are they understood. Second, what effect does this institutional context have on the academic, disciplinary and/or professional identities of people involved? And, third, how do individuals conceive the praxis of teaching

and research *vis a vis* newer institutional ideologies, when they are also embedded in the process and therefore subject to its procedures?

At another level, the program represents an opportunity to develop hypothesis-driven or inquiry-based methodologies for collaboration that might address Ernst Boyer and Lee Mitgang's idealistic and much cited, but less heeded, call for

"a new language driven by the conviction that the standards used to evaluate performance should be organised not so much around blocks of knowledge ... as around modes of thinking: the discovery, integration, application and sharing of knowledge" (Boyer and Mitgang 1996:66)

However, the notable weakness of Boyer and Mitgang's thesis is that it proposes a structure without *agency*; leaving personal agency and the individual meaning-making of situated actors within real institutional contexts relatively unexamined.

Elsewhere, John Robinson proffers two types of interdisciplinary research "temperament" that he suggests are "derived from actual practice". The first is interested in "inter-relationships among disciplines, the intellectual puzzles and questions that lurk at the margins of established knowledge, and ... the intriguing possibility of creating new understandings, drawing from established bodies of disciplinary thought" (Robinson 2008:72). However, even though people may seek to create new insights, the practice itself remains defined and delimited by academic disciplinary norms. By contrast, the second temperament revisits Klein and Newall's (1996) 'issue driven interdisciplinarity' that compels practitioners to navigate the "sometimes uncomfortable borderlands" between the academy and the larger world. (Robinson 2008:72).

Robinson's 'temperaments' recall Bourdieu's *habitus*; an analytical tool that attempts to explain how clusters of apparently objective relations that define any disciplinary field come to be adopted by individuals. It describes a "schemata of perception, appreciation and action that result from the institution of the social in the body" (Bourdieu 1998:127).

Bourdieu's original exegesis can be re-construed as fluid networks of objective relations between legitimate but varying positions. These fluctuating, continually forming and reforming contexts constitute what sociologist Andrew Abbott (2005) calls 'ecologies of practice'; characterized by "interactions between sets of agents, sets of locations, and relations between these - neither fully constrained nor fully independent" (Abbott 2005:249). Despite disciplinary claims for control of knowledge bases or occupational boundaries, any learning environment is a complex interactive system occupied by competing actors, subgroups and forces. Indeed, for the program described here, the merging of individuals or groups into a legitimate whole is less important than the coming together, sometimes only briefly, of ideas and agencies in overlapping constellations of knowledge, research practices and ethical affects.

"The appeal of ecology as a conceptual metaphor is its ability to focus our attention on a temporarily finite set of practices, ideas, and interactions without fixing them in place or investing too much critical energy in their stability." (Brooke 2009:42)

Thus it becomes possible to imagine academics and students of, and in, institutions as simultaneously co-creators and creations of an ecological system. This partially explains the relational environment which the Creative Technologies program has created; a dynamic learning system that continually - and

rhetorically - constructs, construes and re-configures itself under the influence of various agencies - individual or collective – that are both internal and external to the institutional environment.

The new program seeks to shift the traditional focus of creative enquiry from the individual (broadly, fine-art model), to a more socialised notion of collaboration. The notion of our studio as a “collaboratory” - an evolving laboratory for collaboration and creativity - also recognizes that such environments can foster complex, dynamic, risky and opportunistic relationships; between situated agents, methodologies, knowledge domains, technological developments, skills and applications.

Such environments are often also characterised by a playfulness that may make it difficult to recognise, articulate or evaluate the resultant experimental propositions as valid educational outcomes. Given the current international interest in both “creativity” and “collaboration” in numerous educational policy documents and graduate profiles, it is appropriate and timely that the program initiates critical engagement with this “play” - not least by challenging institutional praxis.

Conclusions

This paper has attempted to shift attention from the traditional focus on processes or outcomes, to explore how academics themselves might (re-) negotiate their own roles, in relation to others, within a discursive ecology. In this sense, inter- or trans-disciplinary education can be seen as rhetorical practice; capable of being adopted or resisted by academics, students and administrators operating to construct what Bourdieu called a “space of possibilities”, that “defines and delimits the universe of both what is thinkable and what is unthinkable” (Bourdieu 1988: 220).

What would seem to be at stake here is the issue of whether institutional agencies are themselves capable of conceiving, engaging, directing or influencing transdisciplinary education at a philosophical or cultural level, and so stimulating new modes of practice for a complex and uncertain world, or whether their role is confined to debates over epistemology, funding, institutional management or marketing. The contribution of this study is to shift attention from institutional discourses of compliance towards a broader field of possibilities for creative *praxis*.

References and Notes:

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