Chapter 15

REFLECTIONS ON THE CPTS MODEL OF INTERDISCIPLINARITY

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1. INTRODUCTION

In this chapter, I adopt the role of ‘critical friend’ to the CPTS research programme\(^1\). I believe the CPTS model of interdisciplinarity has some significant strengths, and also some potential weaknesses that the researchers taking it forward might wish to address. Most of my critique refers to the introductory chapter of this book, as this offers the grounding for the rest of the CPTS research programme. However, my focus on the introduction should not be taken as a sign that I regard other contributions to the book as less significant - it is just that the basic CPTS model of interdisciplinarity is my primary concern.

Over the coming pages I will first of all highlight what I see as the strengths of the CPTS model, focusing in particular on the value of the systems approach embodied in it, and its potential applicability to technologies beyond information systems (the practical focus of most CPTS authors to date). I will then offer two critiques. The first points to a gap in the model: the omission of ecological systems as an aspect of analysis. The second critique raises some questions about the nature of the links between research at the levels of the artifact and directional perspectives. I suggest that, when there are significant disagreements on the ethics of a technology, to the extent that some researchers wish to

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\(^1\) [The CPTS, the Centre for Philosophy, Technology and Social Systems, and its research programme from which this book has emerged, are described in the Preface. What Midgley calls the CPTS model is that depicted in Fig. 1 of chapter 1. Eds.]
prevent its development and others wish to press ahead, we have to ask whether and how interdisciplinary co-operation should proceed.

2. THE STRENGTHS OF THE CPTS MODEL

In my view, the CPTS model of interdisciplinarity has several important strengths: it is explicit about its theoretical underpinnings; is inclusive of ethical debates; takes a useful systems approach to understanding the relationships between fields of inquiry; is potentially applicable to a broad range of technologies; and can enable the incorporation of many more disciplines than are currently included in the CPTS research programme. I discuss each of these strengths in turn below.

2.1 The value of explicit theory

The first strength is that there is an explicit theoretical rationale for the focus on basic technologies, technological artifacts, socio-technical systems, human practices and directional perspectives as the principle concerns flowing into interdisciplinary engagements. As Strijbos and Basden (chapter 1) make clear, these categories are derived from the philosophy of Dooyeweerd (1955). Although I am not in complete accord with Dooyeweerdian thought, I nevertheless appreciate that there is a coherent set of ideas lying behind the CPTS model. This is important because it takes us a step beyond models that are simply born out of strategic alliances between researchers from two or more disciplines who happen to share common interests. While alliances like these can be useful for pursuing focused projects with particular purposes, it is difficult for them to give rise to more general models of interdisciplinarity unless there is a focus on providing some theory that explains why the model might have utility beyond the immediate local circumstances in which it was generated.

2.2 The incorporation of ethical considerations

In addition to being explicit about theory, the CPTS model is inclusive of ethical considerations under the heading of ‘directional perspectives’. This is important because there is a tendency in modern societies for ethical issues (about which ends to pursue and why) to be separated from technical ones (how to implement the ends that have already been predetermined) (Habermas, 1984, 1987). Even some supposedly participative approaches to information technology planning give people scope to