

## Chapter III

# Trust and Clinical Information Systems

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## Abstract

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*Our study of the use of clinical decision support systems by general practitioners in New Zealand reveals the pervasive nature of the issue of trust. "Trust" was a term that spontaneously arose in interviews with end users, technical support personnel, and system suppliers. Technical definitions of reliability are discussed in our chapter, but the very human dimension of trust seems at least as significant, and we examine what is bound up in this concept. The various parties adopted different means of handling the trust question, and we explain these. Some paradoxical aspects emerge in the context of modern information systems, both with the question of trust and with the provision of technical or organisational solutions in response*

*to the existence of trust. We conclude by considering what lessons may be drawn, both in terms of the nature of trust and what this might mean in the context of information systems.*

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## Introduction

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The use of information technology (IT) in healthcare highlights some issues in the social domain surrounding such technology that might otherwise go unremarked. This chapter discusses the nature of trust and the meanings that this concept might have in the context of computer systems. “Trust” in relation to IT is usually taken to convey an aspect of dependability or security (McDermid, 1991), but it might be that “trust” is both a richer and a more useful concept in relation to some computer systems than in the sense of the narrower, more technical definitions such as “dependability” or “reliability” that software and hardware engineering tend to employ. Trust as a human phenomenon in relation to IT is starting to be discussed, and the concept’s use (Raab, 1998) and misuse (de Laat, 2004) have been noted. For the field of computer ethics the term has the advantage that an implicit ethical dimension is captured. We found, when investigating clinical decision support systems (CDSS) in New Zealand, that the term was used unprompted by several different stakeholders when discussing their relationships with other stakeholders and with the technology itself. It seems that trust is an ever-present factor in joint human activity, however technically based that enterprise may initially appear to be.

After a brief discussion of the nature of trust we describe the health sector environment in New Zealand, define clinical decision support systems, introduce the case study, go on to a discussion of our findings, and finally present some conclusions about the meaning of trust in the context of IT.

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## The Nature of Trust

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If, as Bottery (2000) says, “Trust is the cement of human relationships” (p. 71), then we may expect it to feature in the worlds of business and technology as much as in individual relationships. Fukuyama (1996) advances an extensive argument relating the flourishing of business and macro-economic success to the societal prevalence of stable, predictable, trustworthy dealings possible between individual and organisational actors. Echoing this, Bottery remarks how the absence of trust tends to result in, amongst other things: “detailed accountability, exhaustive legal agreements, and extensive litigation ... it can mean vastly increased transaction costs, which can

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