In order to conclude our discussion of the value of information technology, we need to answer these questions: What characteristics does IT share with modern technology generally? What is its place with respect to the rest of technology and with respect to the rest of the world? The goal of this chapter is to formulate how information technology might interact with ethical principles required at the species level, ecosystem level, and the level of being as a whole. I also want to consider the impact of these ethical principles on our responsibilities as IT professionals.

The most positive feature of information technology is its potential to contribute to the increase in human consciousness by making more knowledge more widely available. Yet it can just as easily enable questionable applications of technology that further our extinction as a species or the destruction of the ecosystem. Let us begin by asking of information technology the questions we
asked about technology generally: Is information technology a neutral means? Does it have its own ends and point of view?

Modern Technology and IT

We saw in the previous chapter that modern technology is not neutral; its use initiates a sequence of changes that takes it to consequences beyond human calculation (Heidegger, 1955). Modern technology has its own point of view and its own ends, primarily to build a new and incompatible order on top of what was there before, in order to extract and store energy for later uses. Although modern technology is an independent force in human existence, it continues to present itself to us as a mere means, an enabler for our other ends. Its way of looking at things, insofar as it ignores the previous pattern of processes, uses, and ends, is inherently “violent” in its effects on those processes. It is always concerned with obtaining the maximum yield for minimum expense (Heidegger, 1955; Young, 2002).

Information technology, not surprisingly, has affinities to and differences from modern technology. IT, like modern technology, is very definitely not a neutral enabling means; it contains its own point of view and specific ends. Yet unlike modern technology, IT does not have the aim of replacing the existing world with its own reality. Rather, it constructs a parallel digital reality with its own relation to our world.

There may occasionally be an IT application that is a mere means, but the functional characteristics that make IT so valuable do not operate in this restricted way. Those characteristics, discussed in Chapter I, are speed of information processing, size of information storage capacity, availability of information at any location, and easy reproduction of information. In order to exploit these characteristics, IT applications need to be part of IT systems, with a minimum scope of an organizational department. Usually they work better with a scope of the organization as a whole, and potentially with global scope for organizations that interact through the Internet with customers, suppliers, or other stakeholders. Since 1990, Enterprise Resource Planning (ERP), functionally integrated software, has become popular. Data entered anywhere in the organization is available throughout the organization, everywhere and immediately. Benefits include savings on operations, responsiveness, improved sales, and less frustration (Brady, Monk, & Wagner, 2001).
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