There has been a long, continuing debate over the value of IS and IT in producing business value and competitive advantage. For years, the “productivity paradox” — the fact that IT investments did not seem to produce commensurate productivity improvements — was used by “IT deniers” to indicate that the huge IT investments made by firms were excessive and relatively unproductive. Witness to this are the titles of well-known Harvard Business Review (HBR) articles by Dearden (1966, 1972): “The Myth of Real-Time Management Information,” and “MIS is a Mirage.”

When this “paradox” was finally discovered to be an artifact of the data and data-collection methods and laid to rest, another “denier” argument came to the fore. It suggested that IT was so ubiquitous that it could not produce competitive advantage, since it is only scarce assets — those possessed by only a few firms — that do so. Again HBR focused on this position with an article in 2003 (Carr, 2003): “IT Doesn’t Matter.”

This is a view that, if accepted, is likely to lead to dangerous behavior since it suggests that spending on IT is necessary, but not important, to producing superior performance. It reinforces the predilections of some who do not understand that IT is a “necessary evil” because of its hard-to-understand nature, its myriad unintelligible acronyms, and its ever-changing nature. To them, IT is changing so rapidly and is often so confusing that it’s hard to wrap one’s mind around its possibilities for driving business growth and profitability.

It is true that some industries are indeed making large expenditures on IT and not achieving productivity benefits. For instance, a McKinsey study concluded that after spending $7.6 billion on IT between 1995 and 2000, the lodging industry experienced no increase in revenue (after controlling for the effects of the economy) and no increases in productivity.

However, some firms and industries are making giant productivity strides through IT and some are achieving new revenue streams and competitive advantages.
THE PORTFOLIO OF IT ROLES

IT plays so many diverse roles in modern organizations that one can “prove” almost anything about IT by referring to only one of those roles.

For instance, the argument that IT is ubiquitous, and not scarce, and therefore of little consequence, is correct if one views only the “infrastructure” role of IT — the technologies that are involved in the operating systems, networks, e-mail applications and other support for the basic repetitive work of the organization. In this role, IT is ubiquitous, can be easily duplicated by others and is readily available to competitors. Based on only this infrastructure capability, the argument that (this sort of) IT can’t produce competitive advantage is valid.

However, there are many other roles and capabilities for IT in most organizations; many of these can lead to competitive advantages and to significant benefits for the firm. To identify those, one need only ask: “Which IT-related capabilities have potentially important effects on performance, are distributed unevenly across companies and are difficult to acquire or develop?”

One of the obvious such roles for IT involves the integration of IT with business processes. When IT is focused on producing more flexible manufacturing capabilities, quicker order fulfillment, faster responses to customer inquiries and the like, it usually has direct impact on the bottom line and on “intermediate outcomes” such as customer satisfaction and quality.

Clearly, “strategic systems” are another such role for IT. While truly strategic systems may be few and far between, there is no denying that some firms have achieved sustained competitive advantages as a direct consequence of implementing such systems. The airline reservation systems are the classic example, but there are many more.

Another variety of important role for IS to which the “IS is a commodity” argument does not apply is the arena of enterprise systems. When ERP systems are purchased from a vendor, an uninformed person might conclude that this is a clear example of a system that is widely available to all. However, as most IS people know, the process of customizing such a system is extensive — often costing as much as ten times the purchase price. The result is a custom system built on a commodity base. Such systems, particularly when they are linked to customer relationship management (CRM) & supply chain management (SCM) systems, provide both greater efficiency and effectiveness to the entire organization at levels that have never before been achieved.

Of course, most firms are selling on the web today. Web-based systems have revolutionized marketing and distribution to both consumer and business customers. These systems, which do have some commodity components, nonetheless require appealing, custom-designed web sites, effective navigational aids and other features that make them attractive to potential customers. Many firms believe that the uniqueness of their web-based systems give them competitive advantages.

The IS function is also a source of a continuing and ever-changing stream of innovative uses for IT. For example, some firms are now using podcasts to communicate to employees. The advantages of produced audio being delivered to digital music players are obvious. Messages form the boss, new product information, and many other messages can be delivered to employees who can download them and listen at a time and place that is convenient to them.

Further, there is also a growing awareness that IT can play an important role in the integration of entrepreneurship and strategy that is necessary if firms are to be quick at identifying opportunities and pursuing them to their advantage. In this sort of firm, the identification of new enabling technologies and the matching of technologies with market opportunities are key to the success of having IT drive business growth.

If a firm adopts this view, it can employ entrepreneurship to identify opportunities, IT to make the opportunities viable and feasible, and strategy to enable them to differentiate themselves from their competitors and to generate greater wealth. Thus, the integration of the three areas — entrepreneurship, strategy, and IT becomes a key IT role for driving business success.

So, these are a few examples of roles in the IT portfolio that mean that “IT does matter.” Any firm that has been misled by these “IT deniers” and doesn’t think that IT matters is probably precluded from being in the high-growth category and being an industry leader.
CONCLUSIONS

It follows from these various “non-commodity” roles in the IT portfolio that a firm seeking to grow and improve its performance based on its IT should develop the skills involved in creating a better understanding of the business on the part of IT professionals and on developing close relationships between IT people, business managers, and business goals. These were among the results of a study that I recently performed in the ERP implementation context, but they are, I believe, broadly applicable.

REFERENCES
