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Chapter 22

Bridging the Industry-University Gap: An Action Research Study of a Web-Enabled Course Partnership

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This chapter discusses a course partnership involving Day & Zimmermann, Inc. (DZI), a large engineering and professional services company, and Temple University. The course's main goal was to teach students business process redesign concepts and techniques. These concepts and techniques were used to redesign five business processes from DZI's information technology organization. DZI's CIO and a senior manager, who played the role of project manager, championed the course partnership. A Web site with bulletin boards, multimedia components and static content was used to support the partnership. The chapter investigates the use of Web-based collaboration technologies in combination with communication behavior norms and face-to-face meetings, and its effect on the success of the partnership.

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INTRODUCTION

Industry-university partnerships, particularly those involving research universities, are commonplace and on the rise (Burnham, 1997). They allow industry access to quality research services at subsidized costs, as well as to potential future employees while still in their formative years. Universities benefit from such partnerships through research grants that complement dwindling government funding, and student exposure to current "real-world" problems and issues.

Some sectors of the economy are more active than others in research involving industry-university collaboration. The manufacturing sector is arguably the most active. In 1998, the National Coalition for Advanced Manufacturing, based in Washington, DC, released a report on the topic covering a wide range of industries. The vast majority of the companies surveyed for the report praised the concept and highlighted the crucial importance of industry-university partnerships for competitiveness improvement. One association of manufacturers in particular, Sematech, made up of companies in the U.S. semiconductor industry, stated that a considerable portion of its membership had been literally rescued from their competitiveness downslide by industry-university research partnerships (Wheaton, 1998).

Irrespective of economic sector or industry, the vast majority of industry-university partnerships are of the *research partnership* type, which predominantly involves applied firm-specific research. In this type of partnership, funding from the industry partner is received in exchange for "intellectual horsepower" in the form of research services and technology transfer (Hollingsworth, 1998). In science-based fields, universities focus on basic research, and the main interest of industry partners is in the commercial and industrial implications of a scientific project and how they can be taken advantage of by internal research and development departments. In less science-based fields, the solution of technical problems is a major concern of industry. In all fields, the exchange of knowledge in techno-scientific communities is a crucial element of interaction in research partnerships (Meyer-Krahmer, 1998).

A much less common type of industry-university partnership is what we refer here to as a *course partnership*, which gravitates around a regular university course (or set of courses) rather than a research project or program. In these types of partnerships, the industry partner agrees to sponsor one or more courses in which the students are expected to apply concepts and theory learned in class to the solution of some of the industry partner's key problems. Students benefit from the direct contact with the industry they are likely to join