FOUNDATIONS OF OFFSHORING

What is the difference between outsourcing and offshoring? Here are two simple examples. If you eat at a restaurant, this is an example of outsourcing, because somebody else spent the time and energy to cook and provide the meal to you. If you call a company for a loan and get connected to an operator in another country, then this is a case of offshoring.

The notion of offshoring of professional activities from the United States to countries in Asia can be traced back to the early eighties. In 1980, the guest editor of this special issue was simultaneously completing a masters degree in management and a doctorate in computer science. Almost all potential employers were interested in the former degree or the latter degree, but not both. During an interview with a very large international banking company in New York, he mooted the idea of the particular company hiring him to do software development activities in India. The country vice president who was interviewing the author reacted, “This is the most ridiculous idea that I have heard in my life.” Among the many reasons that he gave for this opinion, the vice president said, “I thought that you were completing a doctorate in computer science. You should know that when programmers are located near the users in New York, they have great difficulty in understanding what the users want; increasing the separation by thousands of miles will greatly aggravate the problems….” Despite such strong initial reservations, this multinational company holds the honor of being the first financial organization to establish software development facilities in Asia!
Now there are numerous examples of offshoring of software services. The innovations in communications technology, the advent of voice-over-IP technology, and the drastic reductions in prices for such technologies are all facilitating the process of offshoring. Information technologies provide the foundation for offshoring of professional activities.

Conversely, offshoring of projects is catalyzing new information technologies and methodologies. By conducting projects on a global basis, one can reduce costs as well as gain access to greater numbers of qualified and trained professionals.

This mutually supportive interdependence is explored in this special issue of IRMJ.

IN THIS ISSUE
In the first article, Gupta, Goyal, Joiner, and Saini present a vision of how the healthcare industry will be transformed by advances in offshoring and information resource management. After analyzing several healthcare scenarios in detail, the authors conclude that healthcare will increasingly use a portfolio approach comprising three closely coordinated components seamlessly interwoven together: healthcare tasks performed by humans on-site; healthcare tasks performed by humans off-site, including tasks performed in other countries; and healthcare tasks performed by computers without direct human involvement. Organizations that impede or otherwise restrict the use of this multifaceted approach will see higher healthcare costs and will gradually become less competitive in the global marketplace, as is happening with non-adapting organizations in several other sectors of the economy. Finally, this article deals with intellectual property and legal aspects related to the three-pronged healthcare services paradigm.

In the second article, Yadav and Gupta apply a paradigmatic and methodological approach to analyze the academic literature on information systems (IS) outsourcing and business process (BP) outsourcing. First, the authors examine the status of outsourcing research over 10 years (1995 to 2005) in eight leading academic journals, with the objective of comparing the current research trends with earlier research directions. Second, they analyze the research paradigms delineated in these research papers using an Operations Research Paradigm framework. Third, they compare and contrast the outsourcing research work published in three leading European journals with the work published in three leading American journals.

In the third article, Srivastava, Teo, and Mohapatra attempt to reconcile two conflicting viewpoints: while some researchers believe that results from previous studies on onshore IS outsourcing can be extended and applied to IS offshoring, others believe that IS offshoring possesses unique characteristics that prevent such extension and application from the outsourcing arena to the offshoring arena. They examine if determinants of IS offshoring are indeed the same as determinants of onshore IS outsourcing, as well as the role of business-related firm-level variables in determining the offshoring intensity of firms. Their results show a significant relationship between business size and offshoring intensity, and also between business financial leverage and offshoring intensity.

In the fourth article, Dang observes that offshoring involves growing use of an external service provider for storage of data. Since a service provider is typically not fully trusted, this trend raises issues of data confidentiality, user privacy, data privacy, and query assurance. The author discusses approaches that can address these issues, especially for databases that come together with tree-based index structures, thereby enabling users to operate on their outsourced tree-indexed data on non-trusted servers with high query assurance and at reasonable costs. Experiments were conducted with real datasets to validate the theoretical analyses.

In the fifth article, King argues that when traditional IS functions are taken over by offshore vendors or otherwise outsourced, attention must be paid to functions that will need to be developed by IS departments for
the new operating environment. He suggests a framework that could be judgmentally applied to pertinent IS activities to determine whether they should be offshored. In applying this framework at more than 25 firms, he found that many firms opted to retain several functions in-house. Fourteen such activities are discussed in this article.

In the sixth and final article, Denny, Mani, Sheshu, Swaminathan, and Samdal provide a blueprint of the final stable-state scenario for offshoring. This scenario will involve both onshoring and offshoring, and can therefore be termed as hybrid offshoring. Partly inspired by the concept of round-the-clock manufacturing, the 24-Hour Knowledge Factory will use three or more strategically located centers to transform the production of software and other intangibles into a process of continuous development. The authors introduce the notion of composite persona as a potential collaboration model and highlight its capabilities to mitigate problems arising from communicating across cultures, languages, and time zones.

CONCLUSION
In 2004, the first course on Outsourcing of Professional Activities was taught at the MIT Sloan School of Management by Professors Lester Thurow and the guest editor of this special issue. At that time, very few article were available on this topic. To address this deficiency, the author organized special issues of four journals, as follows:

- **ACM Transactions on Internet Technology**: August 2007 issue: edited by Amar Gupta and Satwik Seshasai.

These special issues are being complemented by special sections of several journals. Selected articles from these special issues and sections are envisaged to be consolidated into a book to be released in 2008.

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