Chapter XVIII
Teaching Business Intelligence in Higher Education

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ABSTRACT

In the 1990s there was considerable growth in implementations of enterprise resource planning (ERP) systems. Companies expected these systems to support many of the day-to-day business transactions. The growth in ERP implementations had a resultant impact on the demand for ERP skills. Many universities recognised this demand and the potential of using ERP systems software as a teaching tool and endeavoured to incorporate ERP systems into their curriculum. ERP systems have now evolved to incorporate more strategic components such as business intelligence (BI) solutions. Universities and ERP vendors are investigating ways in which curriculum can be developed to support these new solutions. This chapter discusses a blended approach adopted by a university in the development and implementation of BI curriculum.

INTRODUCTION

Many companies consider enterprise systems as essential infrastructure for daily operations and a critical foundation for business transformation since they manage many of the transactions associated with core business processes. This belief was especially true during the 1990s when ERP systems became the standard replacement for legacy systems particularly in multinational companies (Parr & Shanks, 2000). ERP systems enabled companies to integrate disparate systems enabling improved information flows within and across complex organisations. This connectivity of information flows allows managers to make timely decisions based on data that accurately reflects the current state of their business (Davenport, Harris, & Cantrell, 2004). Companies' requirements have changed and over the years ERP systems have evolved so that the system's focus has moved

from one of only supporting internal transactions to now encompassing transactions with external stakeholders. Companies are now realising the importance of this real-time transactional data, which has previously been used for tactical decision making, to support more strategic and complex decisions. This has seen the advent of various information system (IS) solutions to support this decision making.

The availability and analysis of transactional information contributes to a firm's BI and subsequently to its overall competitive advantage (Francis, 1997; Meyer, 1987). Much attention has been given to optimising business transactions and the associated processing of data; however, there is disappointment by top-level management as to the role that information technology (IT) plays in supporting decision making in organisations (Drucker, 1998). The concept of using IS to support decision making has been a goal since the introduction of computer technology to business. One type of IS with this specific goal was termed a *decision support system* (DSS).

DSS promises to provide managers with timely and relevant information in addition to analytical capabilities to assist effective decision making.

Alter (1980) identified three major characteristics of DSS:

- Designed specifically to facilitate decision processes
- Support rather than automate decision making
- Ability to respond quickly to the changing needs of decision makers

Holsapple and Whinston (1996) more recently identified five characteristics that should be common across DSS. These are:

- The inclusion of a body of knowledge that encompasses a component of the decision makers' domain; this includes how to achieve various tasks and the possible valid conclusions for various situations
- The ability to acquire and maintain descriptive knowledge
- The flexibility to present knowledge on an ad hoc basis in a variety of customisable formats
- The ability to derive subsets of stored knowledge to facilitate decision making

Figure 1. Classification of decision systems
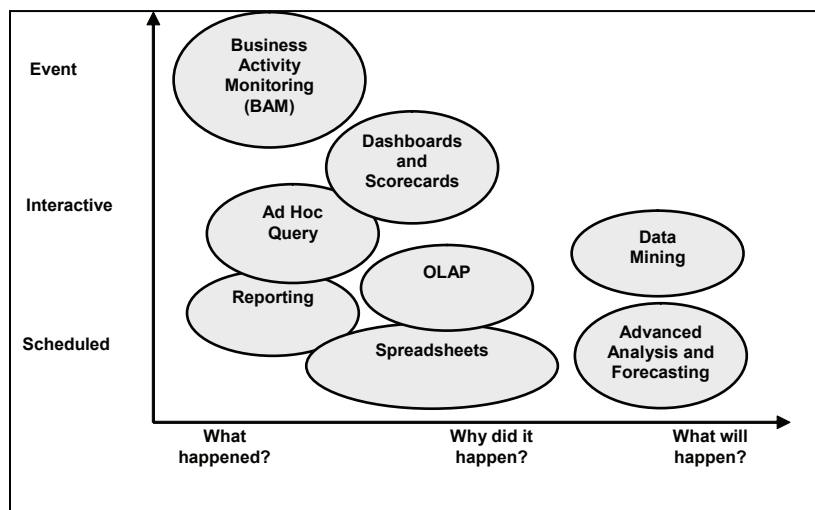
371

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