

## Chapter 6.5

# How Do IT Students Stay Up to Date with Employers' Skill Requirements?

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### **ABSTRACT**

The information technology industry is subject to rapid change. There have been concerns expressed in the literature about the ability of information technology professionals to keep up to date with developments, and it is likely that it is even more difficult for students to do so. New graduates require marketable skills in order to gain good employment, but the skills most in demand change regularly. This chapter reports on a project that investigated the channels of information that undergraduate and postgraduate telecommunications management and electronic commerce students use to keep up to date with employers' needs. The role of instructors in this process is also discussed.

### **INTRODUCTION**

Information technology (IT) has been changing rapidly over a long period, and this rate of change is likely to continue or increase (Benamati & Lederer, 2001; Fordham, 2001). This rapid rate of change has produced many opportunities for organizations but has also brought with it many challenges (Lederer & Mendelow, 1990). Among these challenges is the struggle for organizations to obtain personnel with the appropriate knowledge and skills in order to meet the growing demands for IT services (Doke, 1999). This is mirrored by the continual requirement for IT professionals to keep up to date with the skills required by organizations (Benamati & Lederer, 2001; Klobas & McGill, 1993).

Previous research investigated the importance employers place on various skills and perceived deficiencies in these skills (e.g., Doke, 1999; Leitheiser, 1992; Nelson, 1991). While the call for improved communication and social skills has been consistent, the technical skills in demand have varied dramatically over time. Less has been written about students' perception of the importance of various IT skills, though this was addressed in a recent study that compared Australian and American students' perceptions of IT job skills (von Hellens, Van Slyke, & Kittner, 2000).

Given that the skills required by IT professionals change over time, IT professionals need effective methods to keep up to date. The methods used by IT professionals to keep up to date were studied by Klobas and McGill (1993). They identified the existence of a variety of information-gathering strategies and noted that while IT professionals tended to be diligent in their efforts to keep up to date, a majority found it difficult to do so. In a more recent study, Benamati and Lederer (2001) investigated the coping mechanisms adopted by IT professionals and noted that many mechanisms were not successful.

If it is difficult for experienced IT professionals to keep up to date, it is likely that it is even more difficult for IT students to do so. New graduates require marketable skills in order to gain good employment, but the skills most in demand change regularly. Little has been written about how IT students keep informed of employers' requirements or about how they ensure that they can meet these requirements. Yet, this knowledge would be of use to educational institutions aiming to facilitate this process and to potential employers hoping to recruit students with the required skills. This chapter describes a project that investigated the channels of information that undergraduate and postgraduate telecommunications management and electronic commerce students use to keep up to date with employers' needs. The role of instructors

in this process was of particular interest, because they are ideally placed to facilitate it.

## **THE RESEARCH PROJECT**

This research was conducted by survey. Participants in the study were students enrolled in several electronic commerce and telecommunications management courses at an Australian university. Students who successfully complete these particular courses can also pursue Cisco certification as the courses make use of the Cisco curriculum. Participants were recruited during class and completed a questionnaire on the spot. It was stressed that the completion of the questionnaire was voluntary and that it formed no part of their assessment in the course.

The questionnaire was designed to be easy to read and understand and to require no more than five minutes to complete (the Appendix at the end of this chapter contains a list of all of the items in the questionnaire). The questionnaire contained three types of items. The first type asked about:

- Age
- Gender
- Amount of previous work experience (both total and IT experience).

The second type of question related to the degree students were undertaking and their perceptions of:

- Whether the skills provided by their degree are those employers require
- The importance of industry certification for their future employment.

The third type of question related to the information that students might use to keep up to date with what skills employers require. Information about IT is available from a variety of sources in

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