

Chapter 7

Embedding Communication Skills in the Study of the Discipline

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ABSTRACT

The development of communication skills in Information and Communication Technologies (ICT) majors is increasingly identified as a priority area, with both academic and industry groups calling for a greater focus on the development of these skills within the higher education curriculum. Although widely recognised as important, there is a lack of guidance within the ICT area as to how communication skills should be taught, and the most effective means of developing these skills. This chapter reports on approaches to teaching communication skills development within the ICT discipline. The main contribution of this chapter is the categorisation of communication skills course activities reflecting the context of modern communication skills required by IT professionals that can be easily mapped to a discipline curriculum. These activities represent examples of both informal activities designed to engage students regularly with developing their communication skills, and formal activities designed to assist assessment, including self- and peer-assessment. The authors present their experiences in the design and delivery of an intensive communications skills course designed for international articulation students. An initial analysis of the progress of these students demonstrates increased clarity in the students' understanding of study and communication requirements, and improved performance in language-rich assessments.

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INTRODUCTION

“Writing represents a unique model of learning – not merely valuable, not merely special, but unique” Janet Emig (1977)

It has long been recognised that IT students must develop communication and critical thinking skills (Association for Computing Machinery, 2001; Association for Computing Machinery, 2005; Kay, 1998). However, the development of these skills at the tertiary level remains an area needing reform and improvement. The 2009 Australian Learning and Teaching Council (ALTC) report, *Managing educational change in the ICT discipline at the tertiary education level*, identifies the teaching of personal skills, including communication of all kinds, as a key area for curriculum reform in the tertiary sector (Koppi & Naghdy, 2009).

In recognition of the pressing need to address communication skills development, the ACM Task Force on Computer Science Curriculum 2001 (Association for Computing Machinery, 2001) make several recommendations for the integration of communications skills activities into the curriculum, including:

- Computer Science graduates should be able to write effectively, make informal and formal oral presentations and be able to give and respond to constructive criticism. (p 42.)
- Communication skills development should be fully integrated into degree requirements, not separate. (p 42.)

The ACM Interim Task Force on the Computer Science Curriculum 2008 (An Interim Revision of CS2001) (Association for Computing Machinery, 2008), introduces course syllabi on Collaboration and Communication, highlighting the new mediums of communication required of modern ICT professionals, and identifies Communication

as an expected graduate capability: “Make succinct presentations to a range of audiences about technical problems and their solutions. This may involve face-to-face, written communication or electronic communication” (p. 22).

Communication skills are crucial to the careers of ICT graduates. The increasingly interdisciplinary and transnational nature of the ICT industry sees a growing need for ICT professionals to be able to communicate clearly with clients and colleagues, beyond simply the need to produce clear and understandable software and software documentation. Graduates that demonstrate good communication skills and the ability to communicate clearly within a broad range of settings tend to be more successful in their careers (Forsyth, 2004). Pomykalski (2006) states that “the inability to write and think critically put information systems professionals at risk of being left behind in a rapidly changing technological environment.”

It is perhaps surprising, then, that ICT students rarely receive the degree of training in communication skills development that is called for by both academic and industry groups. Very few ICT curricula include a core course that incorporates the development of communication skills in the context of computer science, and where these courses do exist, the focus of these courses is on general writing skills rather than oral skills, or professional communication skills (McDonald & McDonald, 1993; Giangrande, 2009). Becker supports these claims: “... other than writing code and associated program documents, CS students are rarely given writing tasks in their CS courses” (Becker, 2008, p.14).

However, it is understandable that academics are reluctant to address this concern. An increasingly crowded curriculum leaves little room for the development of non-technical areas, and many academics also report feeling uncomfortable with the degree of expertise in communications required of them in such a curriculum (McGregor, Saunders Fry & Taylor, 2000; Gribbin, 1991).

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