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The Relevance of University Studies to Professional Skills Requirements of IT Workplaces: Australian IT Graduates' Work Experiences

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ABSTRACT

Are university studies relevant to the professional skills requirements of Information Technology professional practice? Recent Australian IT graduates' viewpoints on the challenges they face at work, the typical professional skills requirements of their practice and how they acquired or developed them, the elements of their university study that are relevant to their work professional skills requirements and how well their studies prepared them to meet the professional needs of their practice are discussed. An analysis of what the professional work experiences of these graduates in professional practice tell us about their university studies is also presented. The research findings will provide IT (and other) faculties in universities and employers with evidence to support the preparation of graduates for professional practice through the development of appropriate curricula and transition-to-work support programmes when graduates commence employment.

Keywords: information technology education; IT graduates; professional skills; workplace experience; study-work transition; graduate work experiences

Introduction to study and background

Understanding the transition of graduates from university to the workplace by listening to graduate perceptions of the relevance of their courses or the development of knowledge and skills applicable to their work experiences (Richardson & Kabanoff, 2003; Dahlgren, Hult, Dahlgreen, Hård af Segerstad, & Johansson, 2006) is of interest to the higher education community. Strategies for landing a first job, graduate expectations of employers and coping with initial employment challenges are found in existing literature. However, few researchers have surveyed graduates to capture the feelings, frustrations and challenges of their experiences from the graduates' perspectives. Yorke (2006) suggests that more research is required to ascertain the extent to which graduates are concerned with their lack of preparedness for the world of work. Understanding this issue from the graduates' perspectives and trying to address it by incorporating appropriate material into the curriculum is one of several options to develop work-ready graduates. However, it should be noted that some graduate perspectives, such as their impressions of difficulties and challenges at work, may arise not from a lack of technical preparation but from a graduate's lack of understanding of the workplace or related issues (which, as will be suggested in this paper, could be addressed through work placement experience).

The CEQ (Course Experience Questionnaire) has been used by Australian universities since 1992 to obtain graduate feedback on curricula, teaching and assessment practices and to measure the quality of the outcomes of the learning process. It consists of closed Likert-style questions and two open-ended questions addressing the best aspects of a graduate's course and those aspects that most need improvement. Because not all graduates are employed when they undertake the CEQ, it fails to elicit graduates' perceptions of the relevance of their course and the development of knowledge and skills applicable to their workplace experiences (Richardson & Kabanoff, 2003). Such information would help educators understand the transition of graduates from university to workplace.

Australian higher education providers administer a government-funded Graduate Destination Survey (GDS) to graduates four to six months after completion of their qualifications. The GDS is a measure of success in finding employment and the average salaries of graduates when they enter the workforce. However, it can take several years for graduates to settle in to their chosen careers (Coates & Edwards, 2009), and the GDS was not designed to identify or analyse the skill requirements graduates need for their employment.

Hambur, Rowe and Luc (2002) tested graduates over a range of skills (written communications, problem solving, critical thinking and intrapersonal understanding). They made major contributions to the discussion on graduate skills assessment (GSA). They analysed data from GSA exit 2000 and GSA entry 2001 tests covering 3,663 students from nine fields of study across 27 Australian universities. They found that variables such as field of study, year level at university and familiarity with English (native speaker)

appear to be related to performance on all GSA dimensions. Several institution/discipline-specific data collections aimed at understanding graduate experiences and destinations have also been carried out in Australia (Vignaendra, 1998; James, 2001; Booth & Runge, 2005; Goyal & Weiler, 2006). The majority focused solely on the transition of students from study to employment.

Global research in following graduates after graduation includes Finnie (2000, 2004); Rogers and Mentkowski (2004); Bradburn, Nevill and Cataldi (2006); Purcell, Elias, Davies and Wilton (2005a, 2005b); Futureskills Scotland (2006); Teichler (2007); Allen and van der Velden (2008); Little (2008) and Schomburg and Teichler (2006). The research which took place variously at two, four, five and 10 years after graduation showed mixed responses as to how satisfied graduates were with the relevance to work of their Bachelors degrees. In some studies, statistical information was gathered such as the number of graduates in full-time and part-time employment, the relationship between their field of study and area of employment, etc. In most, the transition experiences of graduates from study to work were studied and, in a few cases, the skill requirements for work – that is, what graduates actually do at work.

Wood and Petocz (2003) suggest that to assist in the development of teaching and learning appropriate to workplace skills, universities should improve connections with alumni and track the destinations of graduates. Knight (2003) states that graduates' lack of work experience, unrealistic aspirations, competition for jobs, poor academic results, poor career planning, degree-work mismatch, lack of communication skills, self-presentation and self-motivation can present serious problems for employability.

There are few studies on IT graduates and their workplaces following their university studies (Sumner & Yager, 2008; Coates & Edwards, 2009; ALTC, 2009a, 2009b). The findings from these studies are discussed in Nagarajan (2011), which specifically addresses the largely unexplored issue of the relevance of university IT degrees to workplace requirements by studying the professional work experiences of new IT graduates.

Study design and methodology

There were 24 participants in this study. All had studied full-time for Bachelors degrees in IT (or related disciplines). Their roles were typical of positions for new graduates and included web design and development, marketing and sales, telecommunications, business analysis, software applications development, systems integration, network management, IT auditing, architecture, testing, hardware replacement, software engineering customer experience requirements, security, database administration, project management, systems administration, quality assurance and various team leader / management roles. The technical content/knowledge required for these job roles would normally be acquired at university. Participants came from a broad spectrum of cultural and ethnic backgrounds, worked for small-, medium- and large-sized multinational and local companies and government. Eleven participants were interviewed and the other 13 responded to the in-depth online survey. All participants had more than six months' but less than three years' experience. Sixteen had more than six months' but less than one year's experience, seven had two years' experience and one had three years' experience. Full details about the study participants such as their location, organisation's characteristics, gender, educational background, years of experience and a brief snapshot of the responsibilities they held in their IT work roles are listed in Nagarajan (2011).

Letters, telephone, email and the internet were used for the recruitment of participants. Academic contacts in the universities in Sydney, advertising through university alumni associations (via their newsletters or email groups), advertisements on university notice boards and circulation of advertisements through ACS (Australian Computer Society) to their YIT (Young IT) members were used for participant recruitment. The interviewees were contacted regarding a convenient location, date and time for the interviews. The duration of interviews varied between 45 minutes and an hour.

Some key ideas from grounded theory (theoretical sampling, constant comparison, theoretical saturation, open coding, axial coding and selective coding) were employed for data collection and analysis. Interviews and qualitative online surveys were used to capture the graduates' professional work experiences. Semi-structured interviews were chosen to allow for other questions to emerge based on the graduate responses. Some questions remained consistent across participants so that the graduate responses could be compared. After data analysis of the early interviews, several questions were added with a view to exploring new concepts in later interviews.

A qualitative survey in the form of a questionnaire (with open-ended questions) was available online to those participants who were interested in participating in the study but could not be interviewed face-to-face for geographical or time reasons. The questions were similar to those asked in the interview. Illustrative questions for the semi-structured interviews and the online survey are available in Nagarajan (2011). Data from interviews and surveys were analysed as they were being completed. Three main coding steps were used following Strauss and Corbin's (1990) approach. They are open coding, axial coding and selective coding. As the interviews were completed, they were transcribed, grouped and coded. The data from one interview were constantly compared with the other interviews and the same codes were used in all the transcriptions when there were similarities identified. In axial coding, the codes were reviewed and grouped into categories (subcategories). Using constant comparison analysis process, new categories were created

and older ones merged to form minor and major categories. Detailed discussion of the theoretical and analytical backgrounds, the findings of the study and analyses of particular themes which emerged are presented in Nagarajan (2011).

Study findings

The major themes that emerged during data analysis are:

1. Professional skills the IT graduates believe they require at workplaces;
2. Sources of professional skills;
3. Most useful aspects of university studies for professional skills;
4. Challenges at IT workplaces and strategies used by the graduates to approach them; and
5. Graduate perceptions of differences between university and the workplace in application of professional skills.

Professional skills

Eight major categories of professional skills that the IT graduates believe are required for their work emerged, namely: communication, time management, teamwork, working with people, working across cultures, project management, business skills and personal attributes. The details of the skill requirements for these categories are in Appendix 1.

Sources of professional skills

The eight professional skills categories have multiple and complex relationships and, according to the graduates in the study, can be developed from a variety of sources, only one of which is university studies. Some skills (such as working with international clients in different time zones and from different cultures) were developed only outside university studies. However, the development of these skills at university is not impossible and would be a useful addition to the curriculum, although practices at some universities, such as allowing students to submit their work late, do not encourage the necessary development of time management skills in graduates.

A sample quotation:

> *Though 'change management' is often a corporate buzzword, who is to say that trying to lose weight and going on a diet isn't an exercise in change management? Who is to say that taking out a mortgage and having to re-evaluate finances isn't an exercise in change management? These are all common life experiences, which go toward development and maintenance of such skills, but aren't often considered as such in our linear views of corporate life.*

Most useful aspects of university studies for professional skills

The graduates were asked questions about the most useful aspects of their university studies for professional skills required for work. Some common answers were: work placement, project work, project management, subjects that involved presentations (oral and written reports) and business-focused subjects (such as e-business, marketing). All responded that work placement and project / project management subjects were the most important.

Graduates state that work placement/industry experience:

- Provides exposure to the IT industry culture and practices;
- Helps practise teamwork, develop time management skills;
- Helps develop the ability to sell one's work with confidence;
- Provides practice for the theories studied at university;
- Allows learning on the job;
- Provides opportunities to network and build contacts with other professionals;
- Teaches graduates that they are accountable for the work they do.

When working on practical IT project work, graduates:

- Learn to balance their individual contribution against the group's work;
- Manage teams and varying workloads;
- Develop awareness of professional and ethical issues;

- Experience different project life cycle stages;
- Build relationship networks; and
- Work on multi-disciplinary teams with different project complexities and durations.

All these aspects assist graduates with a smooth transition when they first enter the workforce. Project management subjects provided students with several opportunities to practise tasks that are relevant to work situations. These include:

- Working on real or simulated IT projects;
- Undertaking individual as well as team assignment work;
- Using appropriate planning, tools, techniques;
- Understanding the project life cycle stages from start to finish;
- Assuming multiple roles (systems analyst, designer, tester, programmer);
- Coordinating resources;
- Delegating work to team members;
- Developing project documentation; and
- Using decision making skills.

The development of written skills, business documentation skills, research skills and the ability to develop and structure arguments occurs in subjects that involve formal written reports or theses. Written and spoken skills, planning and presentation skills and overall confidence in being a professional develop from subjects that involve presentations. Graduates who did business subjects such as e-business, marketing and economics stated that they are valued for the business skills and knowledge they provided.

Some graduates found university study and campus life to be a useful contributor for their future work roles in terms of:

- Social education;
- Development of confidence, teamwork, communication, problem solving, flexibility, initiation and self-motivation skills;
- Professional and social networks;
- Identification of passion areas;
- Acknowledgement as a professional from others.

The technical subjects that graduates study at university are important for their work, although discussion on them was omitted from this study as the focus was on the professional skills needed for work. They are, of course, critical, as evidenced by this response.

> *My IT degree was technical in nature. I learnt about technology and programming. I didn't do an IT degree to learn about soft skills …This then begs the question as to whether the university course SHOULD have done more to prepare students for the workforce... On the one hand, sure – why spend so many hours at university if at the end of it all you have the qualifications for a job, but not the ability to pass a job interview. On the other hand, we are talking about a technical degree here. As such, its main focus should be the learning of technical skills and non-technical skills should only ever be a background motivation.*

Some recommendations from graduates for improvement of university IT courses

IT graduates believe they would benefit from longer and multiple internships or work experience components with a variety of companies (employers) during their university studies. Other recommendations are more project work and practical assignments – with relevance to real-world work scenarios involving teamwork, scope changes, moving deadlines – which could help with developing skills such as changing ways of thinking, developing open mindedness and being flexible and adaptable. Any staff initiatives to increase industry involvement (for example the use of industry practitioners for lectures) are also seen as highly valuable. Some graduates felt forced by their university lecturers to do the same project that was provided for all the project groups. Graduates would have liked more choice on the different projects/assignments they were asked to do during their studies.

Another specific recommendation is the inclusion of communication-related courses customised to IT workforce requirements. IT graduates believe they would benefit from dedicated courses in professionalism (speech, emails, use of memos, presentations, phone calls / voicemail, negotiation and sales). Graduates feel that although most university IT courses include a subject about communication, such subjects are theoretical and do not seem to provide sufficient practice at developing communication skills. The inclusion of management and business subjects that increase understanding of businesses and connect the material learned in technical subjects with assignments that reflect business requirements are other recommendations.

Multiple relationships exist between the most useful aspects of university studies and the professional skills required at workplaces (Figure 1).

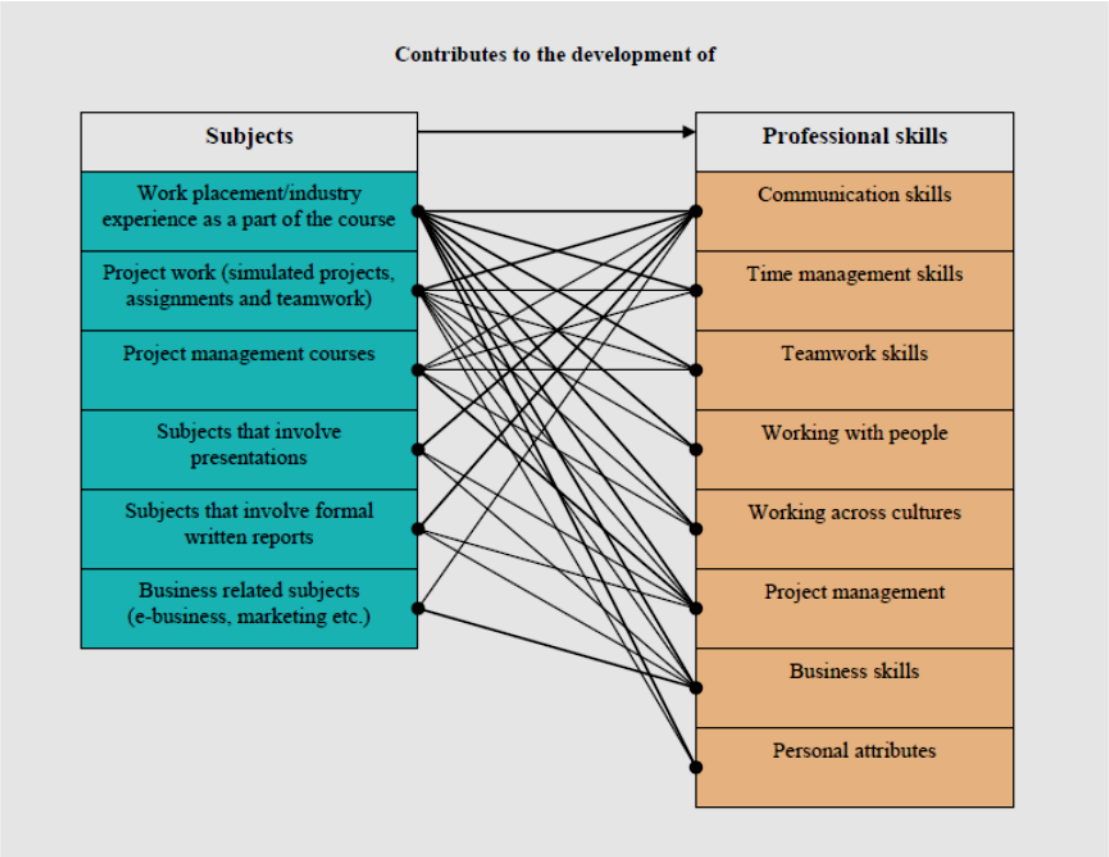

Figure 1 Multiple relationships between the most useful aspects of university studies and the major professional skills identified in this study

Challenges IT graduates believe they face at workplaces

Graduates face many challenges at their workplaces. The areas of challenges and the related professional skill categories are shown in Table 1. The majority of the challenges faced by the graduates lie in the category 'working with people'. Issues such as age differences, gender domination, managing expectations, lack of recognition, lack of support, insufficient induction, mentoring, professional relationships and professional development are particular challenges in this category (details in Nagarajan (2011)).

Graduate perceptions of differences between university and workplace in the application of professional skills

Graduates believe that although they learned some professional skills during their university studies these skills are applied differently in workplaces.

a) Acceptable time management practices: Although university requires submission of assessment by due dates, late submissions and extensions are sometimes permitted while work does not allow for such flexibility. Not delivering assignments on time at university often has few implications. However, at work it can affect a graduate's performance and possibly their entire career.

b) Standard of work: Graduates are required to learn many new things at work. They believe that many of the tools, processes and technologies needed are not sufficiently covered by subjects at university. The expected standard of work is much higher than university work requirements.

c) Motivation to learn: Graduates point out that mature students with different life experiences grasp concepts and progress more quickly at university than immature students who may lack motivation for doing a course. Also those working in the industry while studying tend to be highly motivated.

d) Emphasis on non-technical skills: Many graduates believe that university does not place sufficient emphasis on the non-technical skills which are needed at workplaces. For example, they believe that university did not prepare them for multi-tasking or dealing with stress.

e) Work environment, accountability and transparency: There is a difference in the assessment environment in university and workplaces. Graduates believe that, unlike university, there is transparency in assessment at workplaces. Furthermore, graduates do not have the option to avoid routine work tasks although it may be easy to ignore those activities at university. Many graduates believe that universities need to do more to reduce the initial shock of formal workplace environments and cultural issues at workplaces when graduates first enter the workforce.

f) Others' perception of graduates with university qualifications: Some graduates believe that university studies did not make a difference to them personally but it made employers think that they knew something.

g) Nature of relationships: At university, graduates experience working in ad hoc teams often composed of friends, but at workplaces they are in more formal, professional teams. There are also differences in the relationships with peers or superiors at work than with classmates. For example, they need to be careful when making jokes at work as they may not be well received by certain groups of individuals. IT graduates in the study believe that university did not sufficiently prepare them to get to know people in the industry and their expectations of graduates or of understanding the implications of not performing in a role at work. There is also concern that university does not teach graduates to listen to other people's needs, be patient and empathetic.

h) Gender imbalances and age difference: The ratio of males to females is not as noticeable at university as it is at IT workplaces. At university, friends are mainly of the same age and equal but at workplaces it is usually people from mixed generations working at different levels in a hierarchy.

i) Dress code: Some graduates mentioned that they were unaware of the acceptable dress codes in the industry especially because of the lack of any such dress codes while at university.

j) Support available: While some graduates believed that career-related support is available at university others believed that the support is absent. Similarly, some graduates felt they had support from employers and others disagreed. The employer interest in assisting students with their careers is different before obtaining a degree and post degree. Some graduates are fearful of asking questions at university while they feel freer to ask questions at work.

k) Information processing: Unlike university, where graduates are sometimes spoon-fed with most required information, workplaces require them to seek out needed information, to filter irrelevant information and absorb what is needed. Throughout university, graduates are often advised what work they need to do, whereas at work they are required to find out what work they need to do.

Table 1 Areas of challenges for IT graduates at workplaces and related professional skills

Areas of challenges at work	**Related professional skill category**
Complexity in communication	*Communication skills*
Time and priority management, handling stress	*Time management*
Teamwork and meeting management	*Teamwork skills*
Ability to sell ideas	*Working with people*
Age differences / hierarchy	*Working with people*
Customer service	*Working with people*
Gender domination	*Working with people*
Insufficient induction, limited mentoring	*Working with people*
Lack of recognition	*Working with people*
Limiting reaction	*Working with people*
Managing expectations	*Working with people*
Professional development	*Working with people*
Professional relationships and trust	*Working with people*
Cultural awareness	*Working across cultures*
Learning curve with new systems, reliance on tools	*Project management*
People and resource coordination	*Project management*
Problem solving, risk management	*Project management*

Information gathering	*Business skills*
Ability to learn from mistakes	*Personal attributes*

Graduate reaction to university's preparation for the workforce

When graduates were asked how well their university course prepared them for the IT workforce, mixed responses were received. Some were positive, believing university prepared them well for the workforce by providing opportunities to develop their professional skills not just inside class but throughout university life. For others, work placements and opportunities to tutor classes provided opportunities to develop self-confidence and exposure to the IT industry.

> *I think my BIT degree prepared me well for the workforce especially with the element of two industry placements. It did a great job in helping me obtain practical non-technical skills that I could take with me. University takes a lot of initiative and self-motivation. This is something that I found to be very helpful in moving from uni to the workforce.*

Those who made critical comments believe that university courses should attempt to align themselves with the needs of the industry. However, only a few felt that their study was not directly relevant to their current role.

> *I would say that the degree did provide quite a sound base for my experiences in the workplace. However it has to be noted that not all my studies have mapped directly onto my job. I think a lot of it really comes down to your capacity to pick up concepts and adapt, as well. I would say it was a very grounded base there but it is also quite a subjective thing.*

One graduate commented that university IT courses should provide opportunities for graduates to study subjects outside IT in order to enable overall personality development.

> *… my degree, it was so focussed and specific there wasn't any area for, to make you more of a rounded person. So any area for things like humanities and arts, political things, just to make you a bit more spread.*

Some students commented that completion of a university degree was useful in the hiring process. The majority of the graduates in the study reacted positively to their university's preparation for the workforce. However, the majority also believed that university preparation alone was insufficient to meet professional skill requirements for work.

> *A summation might be that university prepared me well for the workforce, though the preparation given was defective in some aspects. That does not mean that I (or the generic graduate) did not have all the skills needed by the time I entered the workforce... it just means that they were not gained by sitting in lecture halls and tutorials at university.*

Primary concern of IT graduates

Recent IT graduates believe they need many professional skills acquired from several sources outside their university studies to face and cope with the challenges at their workplaces. Some felt they were ill-prepared for work situations. For others, university studies assisted in settling in at workplaces but were not the complete solution. Graduates needed other skills that they picked up either on the job or from previous experience. The strategies graduates use to prepare themselves for the workforce are shown in Figure 2. The question raised by this finding is: is university solely responsible for producing graduates ready for work? If graduates themselves believe that they draw from a variety of sources and strategies both from within and outside their university studies to face the challenges at their workplaces, how realistic is the expectation that universities are responsible for producing work-ready graduates?

Figure 3 brings together the study findings and shows the link between graduates' primary concerns. The finding that there are complex and multiple relationships amongst the categories of professional skills IT graduates believe they need for work and the sources of development of these professional skills has implications for the role and responsibility of professional faculties at universities, employers, and professional associations in preparing graduates for work.

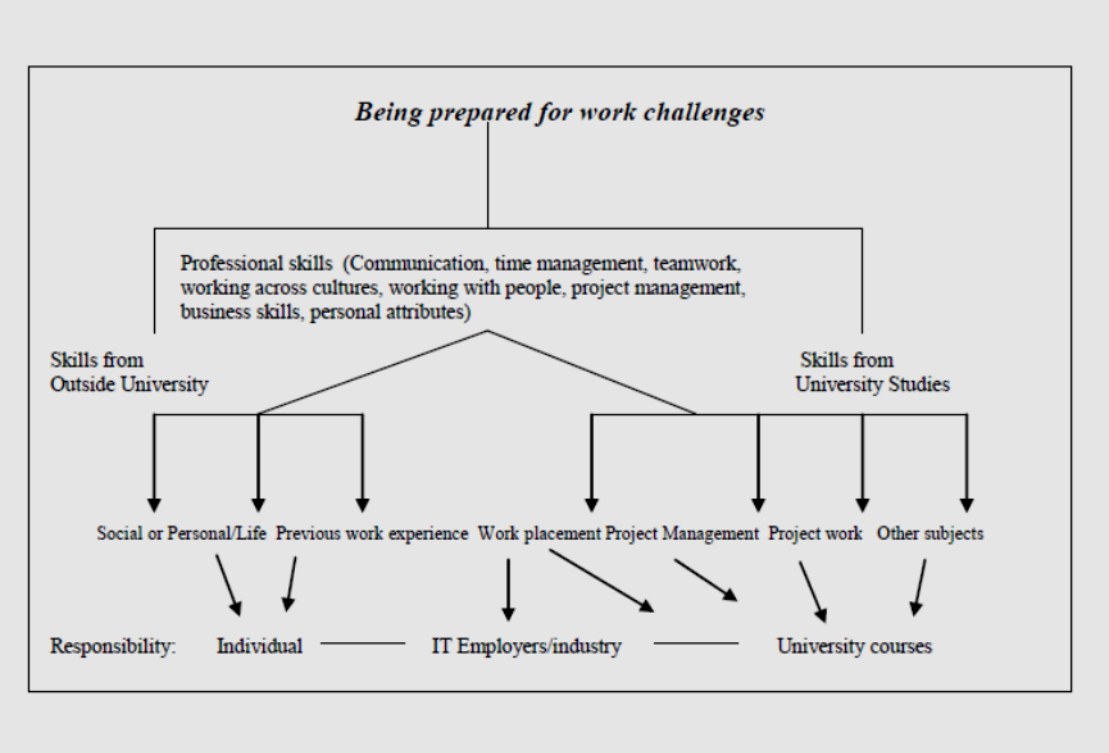

Figure 2 Strategies for being prepared for work challenges

Implications of study findings and conclusion

A contribution towards the existing body of knowledge on graduate work experiences is made and, in particular, to the scant literature on recent Australian IT graduates' professional work experiences. While employer and academic perspectives have been covered by several studies, few have analysed IT graduate perspectives. Similarly, of the other studies of experiences of graduates in the workforce and their perspectives of their university studies, few have focused on IT. Many employers (including IT employers) have argued the need for work-ready graduates. Through understanding recent IT graduates' professional work experiences, a basis is provided for understanding if it is the lack of skills or disconnect in expectations of 'work-readiness' that affects the development of professional skills of IT graduates. Our study provides a detailed account of what graduates actually do at work and what they believe are skills required for their jobs and also of the different ways in which those skills were developed.

Nagarajan (2011) addresses further aspects of the issues raised on the role of universities in the development of professional skills of graduates, the responsibilities of graduates in developing themselves to become work ready and the roles of employers in developing professional skills of graduates.

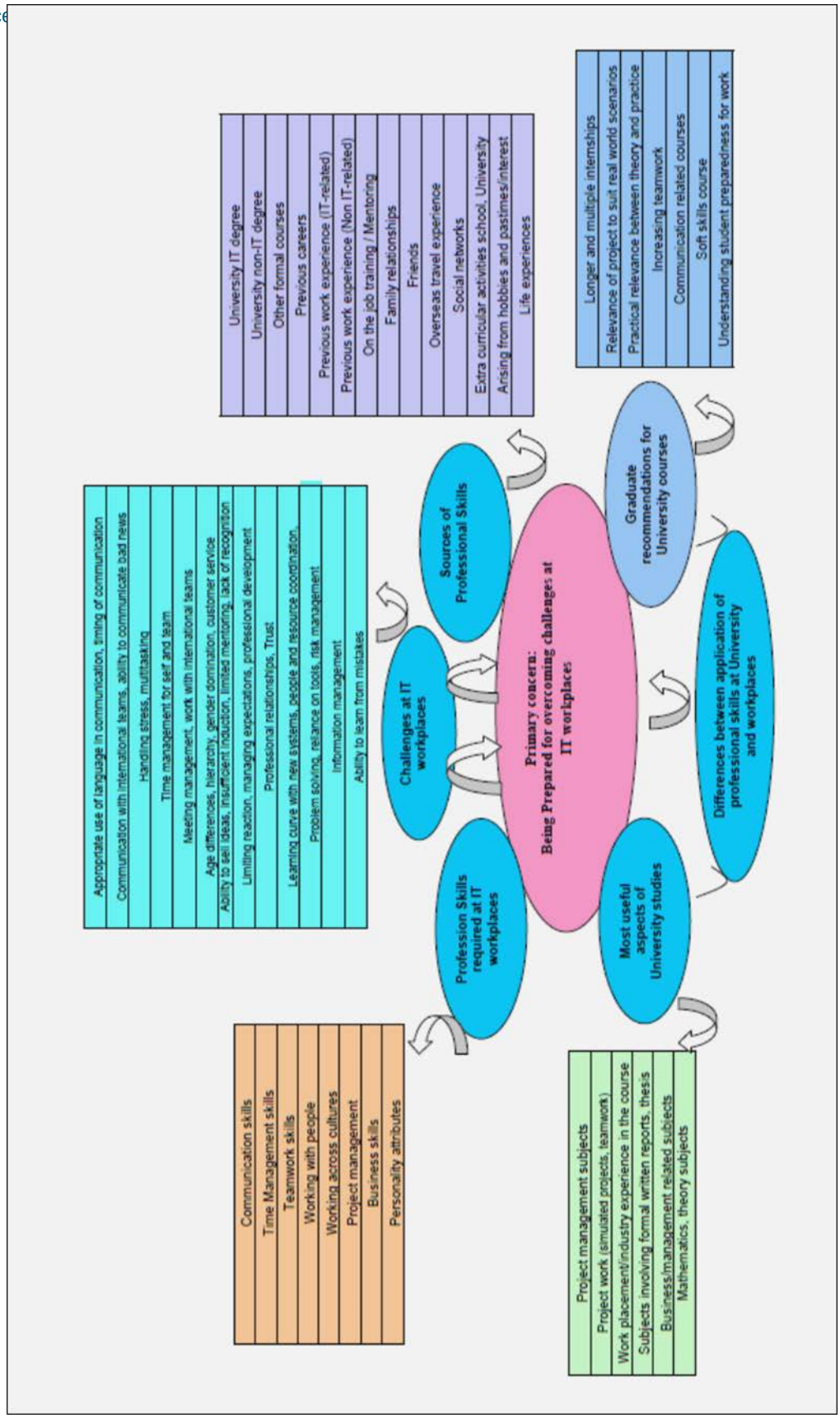

Figure 3 Relationship between themes and primary concern for all IT graduates

Several other questions raised by the findings from this study for future consideration are:

- If, as some universities claim, they are preparing graduates for the workforce, why are employers still complaining about ill-prepared graduates?
- Are universities' expectations that employers accept more responsibility to prepare graduates for work readiness by providing dedicated orientation, induction, and mentoring programs justified? and
- Are employers' expectations of skills of university graduates justified?

Many of the issues raised in this study and in the literature are related to 'expectations' and a possible mismatch in expectations amongst different stakeholders about the skill requirements of graduates. Even after decades of discussion and debates about the lack of professional skills of graduates, the development of curriculum models and efforts to align curricula to industry needs and the development of graduate attributes and accreditation standards to develop work-ready graduates, employer unhappiness about graduate skills remains. Perhaps the reason for this unhappiness is not due to deficiencies in curricula or efforts to develop work ready graduates, but to the expectations of the employers, universities and graduates of each other and poor management of these expectations. Do these expectations need to change?

In contrast to many previous studies looking at work-ready graduates, this study was firmly grounded in the non-technical experiences of recent graduates themselves and the skills they felt they needed in their new professional careers. Thus it does not address items often on employers' wish lists such as creativity. Nevertheless, the study findings have implications for employer, university, professional association, and graduate expectations of each other regarding work readiness of IT graduates and the individual player's role and responsibilities in the development of professional skills. There are also implications for course design, delivery and assessment. Questions about the adequacy of the current graduate attributes framework and whether that is sufficient for development of work-ready graduate attributes are also raised. Nagarajan (2011) argues that the development of professional or work-ready skills is a distributed responsibility, and the different players (universities, employers, graduates and professional associations) have different contributions to make to the development of these skills. Furthermore, this approach will be successful only when each player accepts their responsibilities and co-operates with the others. It appears that employers, universities, academics and graduates need to move from the naïve idea that adding more subjects and focus tasks to existing IT courses will produce work-ready graduates. A holistic approach to the issue is necessary rather than temporary quick fix solutions, although the overwhelming requests for more work placements is an important message for all. While the focus of this study is on recent IT graduates, many of the findings discussed are relevant to other professional disciplines, for example engineering or accounting.

Biographies

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http://sydney.edu.au/health-sciences/about/people/profiles/srivalli.nagarajan.php

Jenny Edwards is a Professor of Information Technology at the University of Technology Sydney. She is a fellow of the Australian Computer Society and the Australian Learning and Teaching Council. She has had many years of experience with industrial training students, graduate placement and work integrated learning and is an active member in many grants and projects in these fields. http://www-staff.it.uts.edu.au/~jenny/

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Appendix 1

Specific skills IT graduates believe are required for their work, many of which are relevant to other professions.

Communication skills	**Requirements**
Appropriate use of language for different purposes	Use of language in communication with clients/peers/superiors; Communication style (formal versus informal); Communication mode (verbal, written, email, online, face-to-face meetings); Documenting communication; Structure of messages; Choice of language in business and technical communication; Ability to communicate bad news – tactical communication
Communication with senior colleagues and people from different cultures	Communication with older colleagues; Communication in an international work environment with people from different cultures
Communication while working in a group	Meeting facilitation; Feedback communication; Communication to solve problems; Communication to sell ideas
Timing of communication in project work matters	Timeliness of communication; Type of work and communication (project scope communication, project risk communication etc.)

Time management skills	**Requirements**
IT project time management in an international work environment	Schedule management (projects; resources) with different project duration; Time management in an international work environment with people from different time zones
Use of appropriate time management strategies	Use of technology; tools and techniques to manage time; Multitasking ability; Timely delegation/escalation of issues
Ability to handle time management challenges both as an individual and as a team	Handling different workloads (under; normal; over; crisis); Timeliness of work delivery and handling pressure; Time management for self and for the team
Timing of communication in project work matters	Timeliness of communication; Type of work and communication (project scope communication; project risk communication etc.)

Working with people	**Requirements**
Managing expectations	Managing expectations of manager; Forecast stakeholder reaction Managing client expectations; Managing team expectations; Work-life balance; Building trust
Professional relationships	Professional relationship with clients; Being aware of hierarchical work relationships
Conflict resolution and negotiation	Use of appropriate conflict management strategies to resolve problems at work
Human resources	Ability to work with competent and incompetent peers; Assisting managers with recruitment of staff

Customer Service	Ability to care for customers and build good relationships; Understanding customers from different cultural backgrounds and customer relationship management; Use of appropriate customer service strategies

Working across cultures	**Requirements**
Ability to work with people from different cultures	Ability to work with people from different work culture (business, IT, international and interstate offices); Ability to work with international people from different work culture; Cultural communication style (choice of correct writing style)
Awareness of cultural barriers	Being aware of language issues and local customs when working on international sites; Language barriers

Teamwork	**Requirements**
Understanding different team structures and composition	Team dynamics; Nature of teams (formal, informal) and team player; Team size and composition
Cultural issues and other strategies that affect teamwork	International team; Handling feedback to and from team Team monitoring and motivation; Use of technology, tools and techniques for team interaction; Handling team conflicts and negotiation
Meeting management	Pre meeting planning and management; Conducting meetings; Post meeting tasks

Business environment	**Requirements**
Knowledge of organisational procedures	Understanding management style, work procedures and product knowledge
Understanding business needs	Business knowledge; Promotion skills; Business analysis
Marketing Skills	Ability to promote products, ideas and services Understanding the importance of marketing and stakeholder relationships
Leadership skills	Understanding team dynamics; Performance appraisal skills
Information Management	Information gathering skills; Information processing skills

Project management	**Requirements**
Managing processes in projects	Change management; Quality assurance; Research and information management; Infrastructure management
Managing project constraints	Scope, resources, cost and time management
People related project management issues	Work delegation; Job competency (analysis, research, logical, economical); Communication management
Creative design	Use of creative design skills in product and documentation development
Understanding the big picture and complexity of IT projects	
Risk management	Managing risk issues in work processes; Managing product related risks; Compliance and work accountability; Adherence to standards

Problem solving	Following company procedures while handling problems; Use or development of appropriate problem solving strategies

Personal Attributes	**Requirements**
Adaptability	Adapting to dynamic work requirements
Self-assessment	Ability to assess one's strengths, weaknesses; Emotional intelligence
Self-confidence	Ability to conduct oneself confidently
Work enthusiasm, ethics	Passion/enthusiasm for the job; Work ethic
Ability to learn from mistakes	Experiential learning: Ability to develop new skills