Individual and Organisational Factors Influencing Academics' Decisions to Pursue the Scholarship of Teaching ICT

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Executive Summary

This paper focuses on Information and Communication Technology (ICT) academics' perceptions of factors that promote and inhibit their pursuit of scholarship in their teaching work. It identifies critical factors that influence academics' attitudes, orientations and behaviours in respect to the scholarship of teaching, and from these builds a framework for understanding the interaction between these factors. We have named this framework the *Scholarship of Teaching Support Framework.*

During 2001 and 2002 a national project investigated teaching and learning initiatives in the major discipline of ICT in Australia's universities. As part of this project a mini-conference program was devised to elicit academics' perceptions of the factors influencing their teaching work and their participation in scholarly activities around this work. In total 83 ICT teachers from 29 universities participated in the mini-conference program. Attendees included staff members from a range of academic levels.

In discussions of aspects of the scholarship of teaching at the mini-conference participants referred to both attributes and responses of both university teachers and the university institutions. We have categorized these factors into those that relate to the individual academic (*Individual domain*) and those that relate to the tertiary institutional system (*Organisational domain*). Many contributions highlighted the interaction between these two domains.

Within the *Individual domain*, two key factors described by participants as affecting the pursuit of the scholarship of teaching were teachers' motivation towards, and their capabilities in, scholarly activities surrounding their teaching. Within the organizational domain two influential factors also emerged. These were the organizational support provided through allocation of resources and symbolic support reflected in an institution's systems, policies and processes.

Our findings indicate that both the *Individual* and *Organizational* domains contribute to university teachers' decisions to pursue (or not to pursue) the scholarship of teaching.

These two domains were seen by participants to interact within university environments to influence whether a particular environment is supportive or unsupportive in terms of the pursuit of the scholarship of teaching. Factors both from and within the individual and the organizational domains were seen to interact with each other forming a web of interrelated factors that appear to influence individuals' decisions to pursue, or not to pursue, the scholarship of teaching. From this complexity four theoretical extremes emerged providing the dimensions and components of the Scholarship of Teaching Support Framework.

We argue that responsive and innovative approaches to university teaching are best supported by academics undertaking scholarly activities around their teaching work, yet this article presents a picture of a university work environment where scholarly activities that focus on teaching and learning are seen as generally unsupported and unrewarded. This perception was identified as commonalities across a university system. Although some exceptions were noted, participants generally agreed that the *organisational domain* of Australian universities was largely unsupportive of the pursuit of the scholarship of teaching. Similarly, in general, university ICT teachers were not thought to have the backgrounds and capabilities necessary for pursuing the scholarship of teaching, such as familiarity with literature on teaching and learning and skills in educational evaluation. However, despite perceived inhibitors in universities' organisational culture and allocation of resources, and a perceived lack in individuals' skills, participants agreed that scholarly activities and innovation in university teaching and learning *do* take place, These are largely driven by the intrinsic motivation of individuals. It was recognised that further work is necessary to explore how motivation can be engendered and encouraged.

The *Scholarship of Teaching Support Framework* is a useful tool for examining how conducive a given university teaching context is to the scholarship of teaching and, therefore, can be used for review purposes within both research and policy contexts. Such tools will become increasingly important as policy changes begin to affect practices in how university teaching work is managed, supported and encouraged.

Keywords: tertiary ICT education, scholarship of teaching

Introduction

Over the past decade a number of factors have profoundly affected tertiary teaching practice. Changes in student populations in higher education have caused academics to teach larger and more diverse student populations. The increased availability and use of computing, information and communication technologies have necessitated the reassessment of traditional pedagogies encouraging the development of new educational practices. These changes have occurred in the context of a recognition of the need to prepare graduates for a changed workforce. Universities have responded to these changes in a range of ways, including putting a greater emphasis on teaching as their core business, implementing initiatives to support academics' teaching work, and adopting business practices for assuring the quality of teaching. These phenomena have been well documented (Askling, 2001; Gordon, D'Andrea, Gosling, & Stefani, 2003; Huber, 1999; Winter, 2002).

Responsive and innovative approaches to university teaching are, we argue, best supported by academics undertaking scholarly activities around their teaching work. In this paper we present a framework for describing the interactions between individual and organisational factors involved in academics' decisions to pursue scholarship in their teaching. The tool was developed from data collected as part of an Australian study of the university discipline of Information and Communication Technology. The *Scholarship of Teaching Support Framework* is a useful tool for exploring how conducive a given university teaching context is to the scholarship of teaching and how university teaching work is managed, supported and encouraged.

The Scholarship of Teaching

A growing interest in university teaching has been supported by a developing literature on the merits of teaching as source of scholarship. The scholarship of teaching has been recognised as crucial in the promotion of excellence and innovation in university education (Boyer, 1990). Since the publication of Boyer's (1990) book, *Scholarship reconsidered: Priorities of the professoriat*e, a considerable body of literature has developed on this subject. Existing research on the scholarship of teaching focuses on: defining this form of scholarship (Trigwell, Martin, Benjamin, & Prosser, 2000; Trigwell & Shale, 2004), developing rationales for its promotion and its pursuit by academics (Boyer, 1990; Glassick, Huber, & Maeroff, 1997; Huber, 1999; Kreber & Cranton, 2000) and developing schemes for its assessment (Taylor & Richardson, 2001).

Defining Scholarship of Teaching

Popular understandings of the scholarship of teaching usually focus on the publication outcomes of activities that focus on teaching. However, developments in defining the scholarship of teaching tend to follow the work of Boyer (1990) and of Glassick, Huber and Maeroff (1997) in their embrace of all activities that are systematically implemented to improve knowledge about teaching. Glassick et al. (1997) concluded that an endeavour is considered scholarly when it meets the following standards: responds to clear goals, involves adequate preparation, makes use of appropriate methods, achieves significant results, is effectively disseminated and is critically evaluated. Paulsen (2001) proposes that research on teaching and learning is "one feature of scholarship of teaching" (p.26) and that "the essential character of scholarly acts of teaching is that they contribute to the advancement of pedagogical content knowledge" (p.25). Taylor and Richardson (2001) in their report on a Australian scheme for external peer review of Information and Communication Technology (ICT)-based teaching, make the distinction between what they call *scholarship-about-teaching* and *scholarship-in-teaching*:

> Our sense is that most examples of scholarship of teaching are really discussions about teaching and learning processes, mostly in the form of conference and journal papers. We refer to this publication-focused aspect of the scholarship of teaching as 'scholarship-about-teaching'. Our interest in this work is with those aspects of the scholarship of teaching that directly inform the decisions teachers make. That is, we are interested in those aspects of the scholarship of teaching that both inform the design of pedagogical practices and are evident in teaching itself. We refer to these aspects as 'scholarship-in-teaching'. (p.32) (Taylor & Richardson, 2001)

Similarly, Kreber and Cranton (2000) noted that, to date, assessment of the scholarship of teaching has stressed outcome measures over the process of knowledge acquisition. They argued that, "the scholarship of teaching includes both ongoing learning about teaching and the demonstration of teaching knowledge." (p.478) Consistent with this broad understanding of what comprises the scholarship of teaching, Trigwell et al (2000) found that activities perceived by university teachers as contributing to the scholarship of teaching included teachers: engaging with the scholarly contributions of others, reflecting on their own teaching practice, communicating and disseminating aspects of practice and theoretical ideas about teaching and learning, and focusing on both teaching and learning issues. In this paper, we subscribe to a broad definition that includes the professional development activities, application activities (processes of design and implementation) and evaluation activities, as well as dissemination activities.

Scholarship of Teaching in Higher Education

A critical issue often raised in the scholarship of teaching discourse is the difficulty academics may have in the pursuit this endeavour. Many have speculated about the impediments to promoting the scholarship of teaching, with the relative valuing of research over teaching being the most oft cited obstacle to more sustained enquiry by academics into their own teaching practices (e.g., (Coaldrake & Stedman, 1999; Gordon et al., 2003; McInnis, Griffin, James, & Coates, 2001; Paulsen, 2001; Ramsden, Margetson, Martin, & Clarke, 1995).

These developments aside, both practitioners and policy makers recognise that very little progress has been made in the support and promotion of this form of scholarship. Despite compelling arguments, progress in the implementation of effective policy, systems and initiatives that support the scholarship of teaching has been slow (Gordon et al., 2003). In 2002, the Australian Government Minister for Education, Science and Technology, Dr Brendan Nelson observed, "In many cases it is the selfless commitment and extremely hard work of academics that delivers a consistently high quality and meaningful educational experience to students" (Nelson, 2002a). He argued that:

> Credit should … be given to the thousands of academic and non-academic staff who on a daily basis deliver for their students and their nation. They do this frequently in spite of the current funding and policy framework, not because of it (p.vi).

Findings from the Academic Work Environment Survey, reported by Winter (2002), indicate that an academic work environment is demotivating where there is poor recognition and rewards, and suggest that "recognition and support for staff development and learning would provide a strong message to lecturers that their teaching is valued by the university." (p.241). There are indicators that university teaching work is beginning to attract more recognition than in the past. Rice (2002) argued that "excellence in teaching is not only expected but is also beginning to be acknowledged and rewarded" (p.16). In Australia, moves such as the development of prizes for excellence in teaching, the development of credentials for university teachers, and an increased expectation that teaching work ought to be rewarded in promotion processes, are signals that university teaching work is on the rise in terms of the value that is attached to it. Current developments in Australia in the management and resourcing of university teaching (Nelson, 2002b) mean that more than ever before we need to develop conceptual tools for monitoring and understanding the impacts of policy changes at government and institutional levels.

This paper focuses on academics' perceptions of their work environments, particularly those aspects that influence their teaching. It identifies critical factors that influence academics' attitudes, orientations and behaviours in respect to the scholarship of teaching, and from these builds a framework for understanding the interaction between these. The paper is distinctive in that it draws on academics' first hand accounts of their encounters with the changing context of their teaching and their decisions to pursue (or not to pursue) educational innovations and the scholarship of teaching.

The Study

This article draws on data collected in 2001 as part of a national project that investigated teaching and learning initiatives in the major discipline of ICT in Australia's universities. Specifically, this paper focuses on Information and Communication Technology (ICT) academics' perceptions of factors that promote and inhibit innovation and scholarship in their teaching work.

The discipline of ICT provides an interesting case because it is a new discipline which has grown rapidly using a technology that has seen a fast evolution. This is in addition to the changes that are affecting academics in general. Over the past twenty years, university education in ICT has

developed from specialty areas located in the peripheries of Science, Engineering and Economics faculties, to a number of major sub-disciplines that in many cases now form the focus of independent university departments and faculties. These departments and faculties in part owe their growth to two recent trends: the advancement and convergence of information and communication technologies and the massification and the vocationalisation of university education (Hurst et al., 2001). With the diffusion of computer-based technologies across society, graduates skilled in ICT are required for growth in the economy. ICT educators are acutely aware of the expectation that they should respond to the needs of industry. Other pressures faced by university ICT teachers are the rapid changes in technology and increasing student diversity.

In considering scholarship of teaching there is a view that it should be developed within the context of the culture of the discipline in which it is applied (Rice, 2002). Healey (2000) argues that the primary allegiance of most academic staff is to their subject or profession, and is secondary to their institution. He also claims that most staff perceive significant differences between disciplines in regard to the work that academics do and the way this work is described and valued. He concludes that "Good teaching, like good research, is multi-dimensional, difficult and contextual." (p.183)

However, we consider that in many ways, the diversity among ICT teachers and their teaching contexts is no less than that found among university teachers more generally. In fact, the issues raised by participants in this study are similar to those that would be of concern to university teachers in other disciplines (Gordon, D'Andrea et al., 2003). This research is contextualised in the ICT discipline; however, we feel that the results may be generalised more widely to all areas of university teaching.

Data Collection

A mini-conference program was devised to elicit academics' first-hand opinions and perceptions of the factors influencing their teaching work and their participation in scholarly activities around this work. A full description of the mini-conference process is described elsewhere (Collins, Lynch, & Markham, 2001). Mini-conferences were held in each capital city. Two mini-conferences were held in Melbourne and in Sydney. One mini-conference was held in each of Hobart, Brisbane, Adelaide, Perth and Canberra. A video-link was used to conduct an abridged version of the mini-conference with teachers in the Northern Territory. The mini-conferences ran from 10am to 4pm on designated days in each capital city. The rationale behind the mini-conference concept and design was multi-fold:

- The staging of forums at a range of locations around the Australian continent would be an efficient way to elicit the views of ICT teachers working in a range of universities.

- By offering a combination of focus group and presentation sessions, potential participants would be attracted to the program.

- Maximising the cooperative input from the ICT departments and faculties across Australia would increase the credibility of the project.

- By convening groups of ICT teachers for relatively open discussions of factors influencing their teaching, a rich body of data would be collected.

Mini-conferences were structured around four interactive sessions during which the following data were collected:

- accounts of specific teaching and learning initiatives in which participants are involved;

- reported perceptions of, and opinions about, factors that encourage teaching initiatives;

- reported perceptions of, and opinions about, factors that inhibit educational innovation; and

- reported perceptions about effective means of disseminating educational innovation and barriers to dissemination.

These data were collected in highly participative focus group forums. Two researchers directed the proceedings. Data collected included audio- and video-recordings of proceedings, whiteboard records of outcomes of discussions, and written notes made by individual participants.

Participants

To recruit ICT teachers to the mini-conference program, invitations were sent to all heads of Australian university departments, schools and divisions where ICT-related courses are offered. These included departments of information systems, software engineering and computer science, for example. Invitations described the target group as staff members who were teaching in ICT-related areas and who were involved in teaching and learning initiatives that aim to improve ICT education. Department heads were encouraged to circulate invitations to staff members.

In total 83 ICT teachers from 51 administrative units (46 departments/schools, 1 faculty, 4 university level education units) in 29 universities (27 public, 2 private) participated in the mini-conference program. Participants included staff members from a range of academic levels, including all levels of lecturer, department heads, professors, associate and faculty deans, one pro-vice chancellor and a small number of instructional designers. Participants comprised 29 women and 54 men. Between four and fourteen people participated in each mini-conference.

For a number of reasons, participants can be described as a group of ICT teachers who are specifically interested in teaching and learning. First, the invitation to participate described the target group as staff members who were involved in teaching and learning initiatives that aim to improve ICT education. Second, participants self-selected into the study knowing that it focused on teaching and learning. Finally, the nature of participants' contributions indicated that they were not only interested in teaching and learning, but were enthusiastic about and committed to improving teaching and learning in their disciplines. Therefore, participants are not a representative sample of ICT teachers, but rather those ICT teachers who were both interested in participating in a study with an education focus and able to attend on one of the days offered.

When informally asked why they attended, participants gave reasons such as, "to find out what other people were doing." When asked what they had gained from participating, two benefits were frequently given: an opportunity to hear about what was going on in other institutions and an opportunity to reflect and receive feedback on their own practice.

Data Analysis

A coding process was used to reduce the data collected. To begin with, a data-up, rather than theory-down, approach was taken to the analysis. Notes made in participants' workbooks and whiteboard records of discussions were coded into a large number of descriptive categories. These categories were then grouped, reducing the data further. They were then tested against transcriptions of audio-recordings of discussions, using the constant comparative method (Silverman, 2000; Strauss & Corbin, 1997). The constant comparison method has four distinct stages: comparing incidents applicable to each category, integrating categories and their properties, delimiting the theory, and writing the theory (Glaser & Strauss, 1980).

As data were compared categories were merged and revised. The resulting small number of categories allowed for the complexity of particular issues/factors to be captured in each category and

examined. Particularly rich excerpts were coded into multiple categories. To increase the reliability of this coding process, a co-researcher inspected reports of each code for consistency. The coding process, the resulting categories and the limitations to the study have been reported in more detail elsewhere: Lynch and Collins (2001) focuses on factors inhibiting and driving educational innovation, Collins and Lynch (2001) focuses on issues surrounding the dissemination of educational innovation, and summary findings can be found in the main report of the project (Hurst et al., 2001). This paper focuses on factors raised in relation to practices that can be described as contributing to the scholarship of teaching, and proposes a framework that can help to explain the interaction between these factors.

The Scholarship of Teaching Support Framework

Factors Affecting Decisions about the Scholarship of Teaching

When discussing aspects of the scholarship of teaching, such as engaging with educational literature, evaluating their own teaching or publishing in educational journals, participants referred to both attributes and responses of university teachers (individual domain), and attributes and responses of universities (organisational domain), with many contributions highlighting the interaction between these two domains. It is argued here that perceptions of these two domains contribute to university teachers' decisions to pursue (or not to pursue) the scholarship of teaching. Within the individual domain, two interrelated dimensions were identified: *Individual motivation* and *Individual capability*. References to the individual domain described interactions between an individual's motivation towards activities involved in the scholarship of teaching and his/her *capability* to pursue these activities. These two dimensions interact with each other, as does each with elements of the organisational domain. A further two dimensions were identified within the organisational domain: *Symbolic support* and *Allocation of resources*. References to the organisational domain described elements of the organisational environment, such as organisational values and priorities reflected in institutionalised systems and processes (ie. Symbolic support), and the allocation of resources within the organisation. The individual and organisational domains were seen by participants to interact within university environments to influence whether a particular environment is supportive or unsupportive in terms of the pursuit of the scholarship of teaching.

Individual Domain

Two of the factors described by participants as affecting the pursuit of the scholarship of teaching were individual teachers' motivation towards, and their capabilities in, scholarly activities surrounding their teaching.

Individual motivation

This dimension of the individual domain refers to individuals' motivation, ambivalence or resistance to pursuing the scholarship of teaching. Individuals' motivation towards the scholarship of teaching was seen as being related to their ambition in terms of career progression and, sometimes, their orientation towards change and risk. Those teachers who chose to pursue the scholarship of teaching were seen as resisting organisational agendas, agendas that are seen as antagonistic to the scholarship of teaching, such as the promotion of discipline specific research. Such individuals were seen as basing decisions on intrinsic or altruistic motives. For example, participants talked about the "enthusiasm and a desire to be a better teacher and help your students to

learn better" (Melbourne II Mini-conference). Individuals who resisted organisational agendas and were instead driven by other motivations were seen to be in the minority.

> There are very creative people who aren't [threatened] by those agendas but they're driven by a professional, innovative, creative instinct and that's often where the richest innovation occurs. (Canberra Mini-conference)

Conversely, decisions not to pursue the scholarship of teaching were repeatedly described as decisions to concentrate on other, more highly rewarded, areas of scholarship. An element of the university work environment that was seen as an important contributor to such decisions was lack of time, described by one participant as "time poverty". The following quote is an example of how connections were made between the perceived priorities or values of the university, time poverty and decisions not to pursue the scholarship of teaching.

> The thing I notice is that people don't have much time. And they will be selfish about how they spend their time because they do want to get ahead and they're not stupid. They recognise the way to get ahead is to produce research papers. So if you ask them to do something to contribute to national science week, or something like this [referring to the mini-conferences] or something innovative that doesn't directly benefit them, it can be really hard to engage them because they just don't have the time. (Adelaide mini-conference)

Much of the discussions of prioritising areas of work and the relative valuing and rewarding of different aspects of academics' work were premised on the assumption that university teaching is not valued as highly as other areas of academics' work. Specifically, participants repeatedly contrasted the valuing of teaching with that of discipline specific research.

> I was told, to be promoted just based on teaching, [you] can't just be a good teacher you have to be an outstanding teacher. I don't see those requirements placed on the research. (Sydney II mini-conference)

Characteristics of the university organisational environment interacted with the motivational orientation of the individual to influence decisions about the pursuit of the scholarship of teaching. It was seen as strategic for an individual who *wants to get ahead* to limit the amount of time spent on the scholarship of teaching.

Much discussion in the literature on the scholarship of teaching is based on a perceived need to better reward good university teaching. When discussing the merits of peer-review systems for evaluating teaching, Cosser (1998) pointed to deficiencies in current practices for rewarding good teaching and the difficulties involved in changing institutionalised practices:

> … the rewards for good teaching are grossly inadequate. Until there are *real* incentives for improving the quality of teaching, then - money; status; advancement opportunities - peer review is likely to fail. The irony however, is that only the establishment of viable methods of assessment of teaching … will bring teaching the recognition it deserves. (Cosser, 1998, p.159)

Commenting on the situation in Australia, Taylor (1999) claims that although career advancement in academia is strongly linked to both teaching and research, little progress has been made in efforts to recognise and reward teaching. He argues for strategies which will value teaching and research equally in terms of career progression.

Individual capabilities

This dimension of the individual domain refers to the skills, knowledge, attributes and resources perceived by participants as necessary for the pursuit of the scholarship of teaching and the de-

gree to which an individual may have or lack these capabilities. Many of the data excerpts that illustrate this dimension refer to teaching qualifications and knowledge of educational literature. In many cases, the skills and knowledge perceived as necessary if individuals were to adequately undertake scholarly relation to their teaching were seen by participants to be lacking in university ICT teachers:

> Most university staff are not trained in teaching. They're not trained in anything like that so, you know, you've got to have the desire to try innovation and you've got to have the confidence as well. (Hobart Mini-conference)

> I suspect very few of … the people in our faculty know anything about psychology and the effects of different learning techniques on the way people process information, you know, almost nothing I suspect. (Brisbane mini-conference)

> There is an issue of the lack of professionalisation of university teaching, which means that a lot of staff simply don't know how to go about making educational initiatives because they haven't got any background in education. (Adelaide mini-conference)

> You know, it gets back to again that we're in the educational role but have no theory underpinning it. Education people do. … I mean, it's been studied. We just don't know about it, so we keep reinventing the wheel and it may fall off. (Brisbane mini-conference)

Huber (1999) identified university teaching staff's lack of teacher training as one of three reasons why critical discourses about university teaching have been slow to develop. The other reasons were lack of reward in promotion practices and the fact that teaching is difficult to evaluate. Participants repeatedly argued that university teachers generally lacked the skills and knowledge seen as necessary to undertake educational evaluation.

> It's probably more closely linked into a lack of proper research and evaluation methodology being used by ICT educators. (Canberra mini-conference)

The following excerpt hints at some of the risks involved in investing effort, time and resources in evaluation activities when skills and knowledge are inadequate.

> It's also very difficult to evaluate the initiative you have created when you might spend a lot of time, a lot of effort, doing something then, at the end of the day, how effective has it been. I think we're all very good innovators in many ways but, when it comes to evaluation, assessing that at the end, I think that's where we're missing out. (Canberra mini-conference)

Participants spoke about "educators", meaning the academic staff of faculties and departments of education, as a special group of university teachers who possessed knowledge and skills in educational evaluation. They also saw this group as playing a role in defining and judging scholarly activities in respect to teaching, for example, through the peer review processes of academic journals that focus on research into teaching and learning. Some participants saw their lack of teacher training and skills in educational evaluation as inhibiting their ability to demonstrate that their teaching practices were scholarly.

> Well it is, it's just that we're not trained to step away and look at it, and cast it in the mould that educators would recognise as being valid research. (Hobart mini-conference)

Interaction of individual motivation and individual capability

Individual motivation and *individual capability* have been called *dimensions* here because of the manner of interaction that was implied by participants' contributions to the focus group discussions. **Figure 1** represents these two dimensions. As the figure suggests, motivation and capability were discussed by participants as if they formed a two dimensional plane with positions available for individuals that were highly motivated or highly resistant to the pursuit of the scholarship of teaching, and positions available for individuals that were highly capable of pursuing the scholarship of teaching and those who did not possess the required skills and knowledge. Each of the combinations represented by each of the quadrants shown in **Figure 1** was seen as feasible. That is, an individual could be highly motivated and highly capable, highly motivated but lack the required skills, knowledge and attributes, unmotivated and lacking the capabilities, or unmotivated while possessing the capabilities. A high level of motivation was generally seen as necessary, but not sufficient, for the pursuit of the scholarship of teaching. Conversely, because of the interaction of individual motivation with organisational agendas and values, a high capability, without high levels of motivation, was not seen as sufficient for university teachers to decide to put time and resources into the pursuit of the scholarship of teaching. The quadrant *High motivation, High capability*, highlighted in grey, was seen as the position most likely to support the pursuit of the scholarship of teaching. This position was also seen as the one that university teachers were the least likely to be in.

Figure 1: Two dimensions of the individual domain, showing four theoretical positions
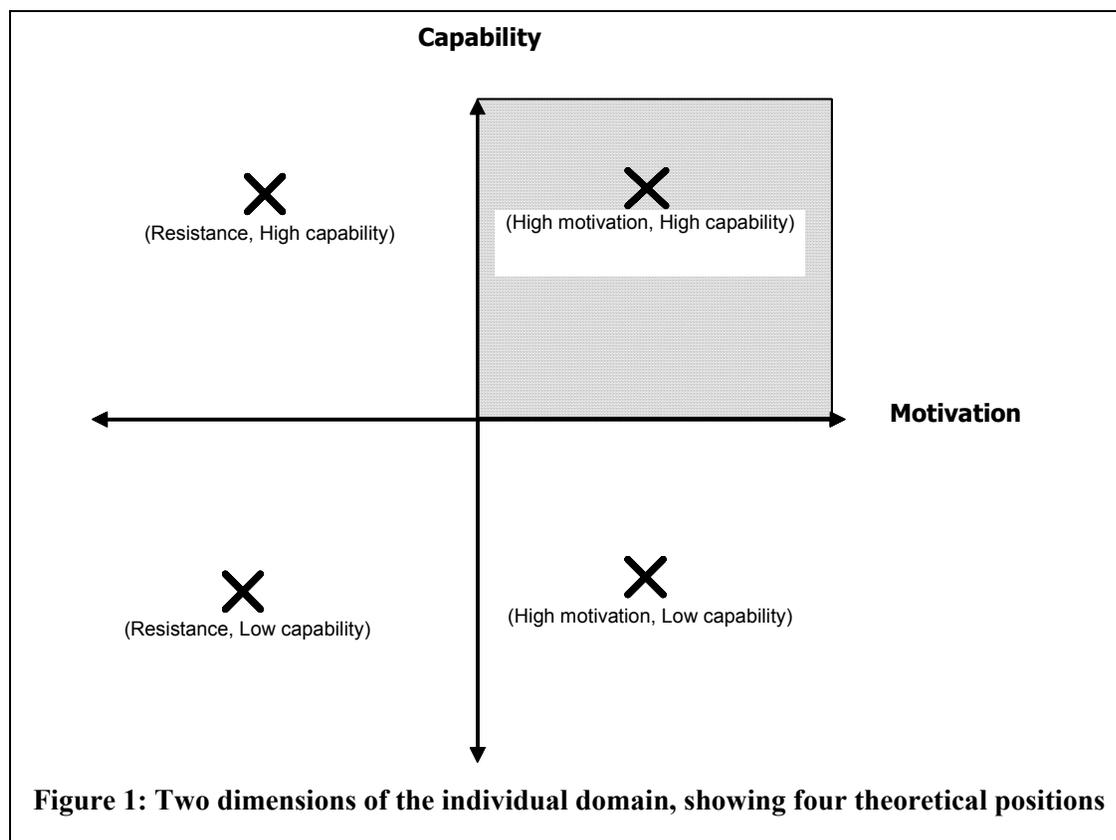
Organisational Domain

Organisational factors described by participants as impacting on university teachers' decisions to pursue the scholarship of teaching are described here as two dimensions: the organisational environment and the allocation of resources.

Organisational Symbolic Support

Symbolic support was seen by participants to affect the pursuit of the scholarship of teaching. Symbolic support includes the values, priorities and agendas reflected in institutionalised systems and processes, and in policy, as well as the values, priorities and agendas made explicit by administrators and policy documents. This dimension includes both implicit and explicit messages about the organisation's orientation to change and risk.

In the following excerpt, a participant explained that universities are risk averse and, therefore, unsupportive of teaching initiatives that are untried.

> It's really lack of – understanding [that] the innovation might fail. I mean, in industry, when you have this group of – it's quite clear right from the beginning that not every idea and project [will succeed]. Okay, that's fine, but this is something we don't have in the University. (Melbourne II Mini-conference)

Participants explained that it is difficult to introduce initiatives that differ significantly from institutionalised practices. One participant indicated how the physical environment, which is congruent with traditional teaching and learning practices, poses difficulties for other approaches.

> You might have a really good idea for teaching and learning, but if you're working in the same physical space that is a lecture theatre, that requires [you] to teach in certain ways. There's very little that you can do to change that. So the actual physical spaces that we're in are inhibitors to initiatives in teaching and learning in computer space. (Brisbane mini-conference)

Similar comments were made in relation to timetabling restricting the flexibility in teaching practice.

Participants also described how quality assurance processes could inhibit innovation in teaching and learning.

> We've got QA reports and sometimes what the students like is not something that necessarily is helping their learning. (Melbourne II mini-conference)

> If the innovation is genuinely pedagogically challenging and the students don't appear to like it, then the institutional reaction is to revert to delivery because that's safe. So you don't necessarily get proper institutional support for innovation I don't think. (Canberra mini-conference)

However, the organisational factor seen as the most significant determinant as to whether organisations were supportive or inhibitive was the value placed on teaching compared to that placed on discipline specific research and the reflection of these values in staff promotion practices.

> How many faculty members [do you] actually see going to an educational conference or attending an educational stream or reading an educational journal as a high priority. We're getting back to this cultural thing in universities that research is important and I'll go and read 75 journals on Petri Nets and I won't open [any] on education because teaching's only what I do so that I can research. (Melbourne I Mini-conference audio transcript)

Organisational allocation of resources

Participants at each mini-conference described the importance of the allocation of resources to support scholarly activities that focus on teaching, where resources include the provision of the funding, time and personnel required to support these activities. The following excerpts illustrate the types of issues that were discussed.

The whole resource thing it has an incredible impact on people taking up initiatives. … the lack of funding, the lack of time that's given and the lack of recognition by Deans for initiatives in teaching and learning is another huge inhibitor. (Brisbane mini-conference)

You may want to implement some initiative, but if it requires twice as much tutoring hours or things like that, then it may be impossible for the School to fund it. (Adelaide mini-conference)

You end up with this situation of sort of time poverty where people might be getting paid a reasonable wage, and there may be resources there, but they have very little time to sit and reflect and write really good solid research papers. (Adelaide mini-conference)

Interaction of organisational environment with allocation of resources

The interaction of *organisational symbolic support* with *allocation of resources* produces four feasible positions. **Figure 2** identifies these as:

- the organisation is supportive of the pursuit of the scholarship of teaching, in terms of both symbolic support and the allocation of resources;

- the organisation pays lip service to promoting and rewarding good teaching, but this rhetoric was not backed up by the allocation of resources;

- the organisation provides tokenistic support (in terms of resources) to the pursuit of the scholarship, but this support was not backed up by the values and priorities evident in institutionalised systems and processes, policy and the explicit statements of administrators; and

Figure 2: Two dimensional model of the *organisational domain*
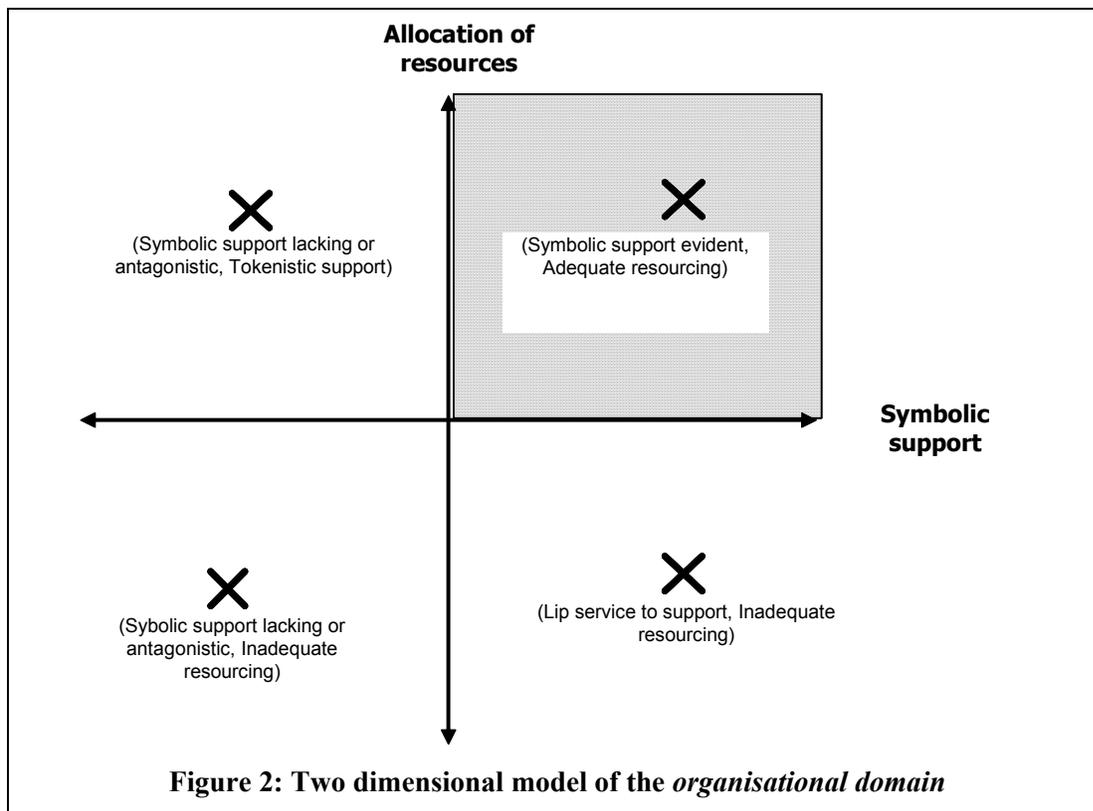
- the organisation was inhibitive, both in terms of values, priorities and agendas and in terms of resource allocation.

Participants believed that an organisational environment that truly valued the scholarship of teaching would manifest in the allocation of resources to support its pursuit. Conversely, the allocation of significant resources would not occur unless the organisation was motivated towards promoting and rewarding good teaching. In Figure 2, the quadrant labelled *Symbolic support evident, Adequate resourcing*, represents the most desirable situation in terms of promoting the scholarship of teaching. However, the quadrant *Lip service to support, Inadequate resourcing* was perceived by participants to reflect the situation that is currently most common in Australian universities.

The following quote identifies the quadrant *Symbolic support evident, Adequate resourcing* as requirements for an environment that is supportive of the scholarship of teaching.

> You need to have management support. I mean, as an educator, you would like to see that there is a plan at the university at a high level with some goals and some strategy or whatever and some really – some public recognition that this is important and on top of that money to go to the conferences and all of these things. So you need some kind of motivation to do these things. (Melbourne I mini-conference)

Interaction between the Individual Domain and the Organisational Domain

The focus group data point to a web of interrelated factors that is perceived to influence individuals' decisions to pursue, or not to pursue, the scholarship of teaching. As described above, participants perceived an interaction between individuals' capacity to pursue scholarly activities and their motivation to do so. The interaction between individuals' capabilities and their motivation, and the relationship between this domain and individuals' choices, was seen to be quite complex, with four theoretical extremes discussed. Similarly, participants perceived a relationship between an organisation's allocation of resources and the symbolic environment. In terms of supporting or discouraging the pursuit of the scholarship of teaching, participants' perceptions of the relationship between resource allocation and the symbolic environment were more simplistic. Participants repeatedly described activities that focus on teaching as being a low priority for universities' administrations or department heads or as relatively unrewarded by universities' promotion processes. Discussions indicated that if the organisational environment was truly supportive and enabling it would couple symbolic support with adequate resource allocation. Conversely, the lack of resources to support scholarly activities was generally interpreted as the result of an inhibitive symbolic environment. Instances of resource support not accompanied with symbolic representations that were also supportive were seen as tokenistic. Such tokenistic support was only seen to truly support scholarly activities where the individual was both highly motivated and highly capable. That is, participants perceived an interaction between the *Individual domain* and the *Organisational domain*. **Figure 3** represents the interaction between the organisational and individual domains. The quadrant *Inhibitive individual conditions, Inhibitive organisational conditions* most typically characterised the position of university teachers. The quadrant *Supportive individual conditions, Supportive organisational conditions* was perceived as the position least likely to be found in Australian universities. Most participants indicated that their own situations reflected the positions described by the quadrants: *Supportive individual conditions, Inhibitive organisational conditions* or *Inhibitive individual conditions, Inhibitive organisational conditions*.

The dimensions of the individual domain are seen to interact with each other and to be influenced by the organisational domain. Although participants described individuals or individual actions

that operated counter to, or despite, qualities of the organisation, no evidence was provided that suggests that participants believed that the individual affected the organisational domain.

The capacity of individuals or groups of individuals to effect change in organisational values was not specifically pursued in this research and warrants further study. The perspective that dominated mini-conference focus groups was that of the individual academic who worked within, and was affected by, the constraints of their organisation. This perspective might in part be explained by the professional experiences of participants, many who worked in pre-Dawkins CAEs and had therefore experienced substantial top-down organisational reform. That pockets of educational innovation exist (and were reported at the mini-conferences) shows that even within a broader organisational context that does not actively support the pursuit of the scholarship of teaching, there is room for individuals to enact their own values and agendas.

The analysis presented here has led us to determine a set of four critical factors that contributes to the conduciveness (or otherwise) of a particular university teaching situation to the pursuit of scholarly activities around teaching practice. These interrelated factors can be represented in the following questions:

1. Are individuals motivated to pursue scholarly activities in relation to their own teaching work?

2. Do individuals have the capabilities required to pursue scholarly activities in relation to their own teaching work?

3. Does the organisation's symbolic representation of teaching support the pursuit of scholarly activities around teaching work?

4. Does the organisation's allocation of resources support the pursuit of scholarly activities around teaching work?

These questions can be used to drive the diagnosis of a particular situation in terms of how supportive it is of the scholarship of teaching. They can also be used to inform institutional initiatives intended to promote scholarly activities around teaching.

Figure 3: Interaction of the Individual and the Organisational Domains
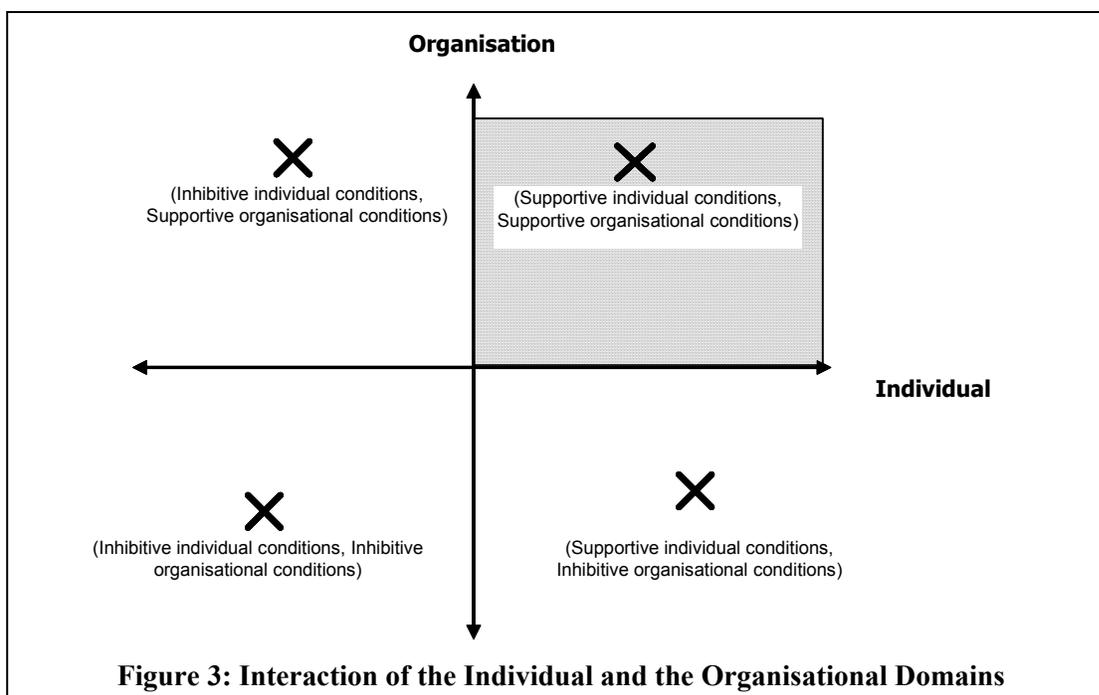
Conclusion

This paper paints quite a grim picture of the context of university teaching work in Australia. University teaching as a field of practice is currently undergoing a lot of change. Both the structural reforms introduced by Dawkins in the late 1980s and the initiatives flagged by Nelson in 2002 (2002a, 2002b) have led to the shifting of resources and to a degree of unease among academics. Nelson's second discussion paper – *Striving for Quality: Learning, Teaching and Scholarship* (2002b) - directly addresses some of the issues raised in this paper for example, appropriate ways to value and reward teaching and ways to professionalise teaching in higher education. It is critical that the changes arising from new government policy are monitored for the effects they have on academic practice.

The data described here was contributed by teachers working in 29 Australian universities that vary considerably. It presents a picture of a university work environment where scholarly activities that focus on teaching and learning are seen as generally unsupported and unrewarded. This perception was identified as commonalities across a university system. All participants (with the exception of a small number of instructional designers) were members of ICT-related departments, yet the diversity among the group reflects that diversity found among university teachers more generally.

Although some exceptions were noted, participants generally agreed that the *organisational domain* of Australian universities was largely unsupportive of the pursuit of the scholarship of teaching. Similarly, in general, university ICT teachers were not thought to have the backgrounds and capabilities necessary for pursuing the scholarship of teaching, such as familiarity with literature on teaching and learning and skills in educational evaluation. However, despite perceived inhibitors in universities' organisational culture and allocation of resources, and a perceived lack in individuals' skills, participants agreed that scholarly activities and innovation in university teaching and learning *do* take place, These are largely driven by the intrinsic motivation of individuals. It was recognised that further work is necessary to explore how motivation can be engendered and encouraged.

Pursuing the scholarship of teaching was seen as risky and costly in terms of extrinsic rewards and career progression. Costs to the individual included time that could be spent on more highly valued and extrinsically rewarding activities. A related risk was that individuals who put time and resources into the scholarship of teaching would be seen as "being into teaching" rather than as serious researchers, and that this would inhibit their career progression. It was acknowledged that universities' policies are beginning to put more emphasis on the value of teaching, but such policies were generally not believed to be supported by the allocation of resources.

If the scholarship of teaching is to be promoted, then attention needs to be given to the organisational context of university teaching in terms of the symbolic and resource support. The framework described here suggests that the promotion of the scholarship of teaching needs to focus on the interaction of two domains: that of the individual and that of the organisation. First, to take full advantage of individuals' motivation to improve university teaching, requisite capabilities need to be developed. Both resource and symbolic support should be provided to enable and reward individuals who pursue professional development activities, such as formal teacher education training, the attendance of education-focused conferences, and training in educational evaluation. Second, to encourage and motivate these individuals to apply their capabilities to pursue the scholarship of teaching, the organisation needs to be supportive. This involves both a symbolic support and the provision of adequate resources. Symbolic support would include the communication of the value of teaching, as well as the reward and recognition of the scholarship of teaching. However, in the eyes of ICT teachers, an important indicator of organisational support appears to be the provision of enabling resources.

The *Scholarship of Teaching Support Framework* is a conceptual tool that can be used both to describe and to diagnose strengths and weaknesses of a particular institutional teaching context. Although the focus of this study was educators in the ICT discipline, we consider that the theoretical framework may be suitable for higher education in general. This framework can be used to generate critical questions about how the scholarship of teaching might be better supported in specific contexts.

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