

## **The scholarship of teaching: Risky business in ICT education**

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### *Abstract*

The idea of the scholarship of teaching was reinvigorated twelve years ago by Boyer's (1990) book, *Scholarship reconsidered: Priorities of the professoriate*. Since then a considerable body of literature has developed, discussing what the scholarship of teaching might look like, why it is desirable and how it might be encouraged. The scholarship of teaching has been described as including the activities involved in designing, implementing and evaluating teaching and learning, and associated dissemination activities. Over the last few years there has been a resurgence of interest in the role that scholarship might play in the promotion, recognition and reward of good university teaching.

This paper draws on qualitative data that were collected as part of a national study of the major university discipline of Information and Communication Technology (ICT) to generate a framework for describing the context of university teaching and for examining how conducive this context is to the scholarship of teaching. The framework comprises two domains: that of the individual educator and that of the organisational environment in which the educator works. The paper highlights the importance of, and interaction between, these domains, and the role they play in promoting or discouraging the scholarship of teaching.

### **Scholarship of teaching**

Debates surrounding the scholarship of teaching were reinvigorated twelve years ago with the publication of Boyer's (1990) book, *Scholarship reconsidered: Priorities of the professoriate*. Boyer proposed that we move beyond the teaching versus research debate and redefine scholarship to include four areas of scholarly endeavour: the scholarship of discovery, the scholarship of integration, the scholarship of application and *the scholarship of teaching*. Since the publication of Boyer's book, a considerable literature has developed, discussing what the scholarship of teaching might look like, why it is desirable and how it might be promoted and demonstrated. Huber (1999) outlined a number of trends that have contributed to the increasing interest in the scholarship of teaching:

Now, with heightened expectations for social and financial accountability, more formalized criteria for evaluating teaching performance, the explosion of information technologies, the popularisation of new pedagogies, and a commitment to educate a more diverse set of students, faculty members across the board are being encouraged to take a more professionalised, systematic interest in curriculum, classroom teaching, and the assessment of student learning. ... What this all adds up to ... is the beginning of ... an academic culture more open to the investigation, documentation and discussion of significant issues in the teaching of one's field. (Huber, 1999, np)

Popular understandings of the scholarship of teaching usually focus on the publication outcomes of scholarly activities that focus on teaching. In 1997, the Carnegie Foundation published a companion to Boyer's original work: *Scholarship assessed: Evaluation of the professoriate* (Glassick, Huber & Maeroff, 1997). Glassick, Huber and Maeroff 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.

Taylor and Richardson (2001, p.32), in their report on a national 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*, where scholarship-in-teaching focuses on the design process and accounting for outcomes, and scholarship-about-teaching focuses on understanding the teaching and learning process:

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'. (Taylor & Richardson, 2001, p.32)

In this way, the processes of design, implementation and evaluation are seen as a source of scholarship.

Similarly, Kreber and Cranton (2000, p.478) 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." They propose "an alternative understanding of the scholarship of teaching, one that considers it to be both learning about teaching and the demonstration of that knowledge" (Kreber & Cranton, 2000, p.492). In this way, the scholarship of teaching can be seen to include professional development activities, application activities and evaluation activities, as well as dissemination activities.

Trigwell et al (2000) investigated university teachers' conceptions of the scholarship of teaching. They found that activities perceived by university teachers to contribute 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 teachers conceiving of teaching and learning.

The research reported here examines Australian university ICT teachers' perceptions of factors that influence their decisions to pursue, or not to pursue, the types of activities that have been described as comprising the scholarship of teaching.

### **The ICT-Ed Project**

In January 2000, David Kemp, then Minister for Education, Training and Youth Affairs, established the Australian Universities Teaching Committee (AUTC). Later that year, the AUTC commissioned the first round of national major discipline reviews of teaching and learning in Law, Nursing and what was termed Information and Communication Technology. In 2001, further projects were commissioned in Arts, Biotechnology and Business. This article draws on data collected in 2001 as part of the project focusing on ICT education (herein referred to as the *ICT-Ed Project*). The aim of the ICT-Ed Project was to investigate the ways that teaching and learning are being approached in the major discipline of ICT in Australia's universities. The purpose of the project was to provide information to the AUTC that would assist the Committee in its promotion and support of excellence in university teaching.

The funding of the AUTC major discipline reviews can be seen as a product of an environment where interest in university teaching is increasing. Huber (1999, quoted above) mentions a trend towards evaluating teaching for the purpose of accountability. In Australia, the requirement that quality assurance processes be applied to the core business of universities has led to an increasing scrutiny of university teachers' work. The establishment of the AUTC, as with its predecessors (Commonwealth Staff Development Fund, Committee for the Advancement of University Teaching, Committee for University Teaching and Staff Development), was promoted as "part of the Government's commitment to promoting quality and excellence in university teaching and learning in Australia" (AUTC 2000, np). This succession of committees and associated funding programs that focus on university teaching can be seen as part of a broader change in the university sector in Australia, and internationally, towards the increasing corporatisation of higher education and the resulting focus on quality assurance. Other parts of the picture are the establishment of audit agencies (Committee for Quality Assurance in Higher Education followed by the Australian University Quality Agency) and the proliferation and expanding roles of teaching and learning units that support, and increasingly evaluate, university teaching.

### *Context of study*

The data drawn upon in this paper were collected during a stage of the ICT-Ed Project that focused on the perceptions of ICT teachers, that is, of those university staff members who are involved in teaching in subject areas such as information systems, computer science and software engineering. During this stage, a mini-conference format was used to collect data from 83 ICT teachers from 29 universities. The discipline context of the study, the mini-conference format, the participants and the data analysis methods are described below.

### ICT education

Over the past twenty years, university education in ICT has developed from a specialty area located in Science and Engineering faculties to a number of major disciplines, many now forming 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. With the diffusion of computer-based technologies across society, graduates skilled in ICT are required for growth in the economy. Skill shortages in this area continue to be reported and forecast (DETYA, 2001, Section 2). With the rapid expansion of the number of students taking ICT-based courses, the factors applying pressure to university ICT teachers - including increasing student numbers, increasing student diversity and changing student demands (Lynch & Collins, 2001) - are similar to those affecting other discipline areas. However, it is arguable that ICT departments feel these pressures more acutely because of their relatively rapid growth.

It should be said that the term *ICT education* implies more cohesion than exists between the sub-disciplines that form this major discipline area. While, in some of the larger universities, these sub-disciplines are now administered under one faculty structure, in many institutions, they are found in different administrative units and are seen to have more in common with non-ICT disciplines than with other ICT sub-disciplines. For example, *information systems* might be administered by a business or a management faculty, while *software engineering* might be administered by a science or an engineering faculty. Similar diversity is found in both the substantive content and the approaches that are taken to the development of new knowledge in ICT sub-disciplines. 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 are similar to those that would be of concern to university teachers more generally.

## Mini-conferences

The AUTC project brief called for the identification of the extent to which innovations in ICT teaching and curriculum development have been initiated in response to the needs of students and employers. In response to this brief, the perceptions of ICT university teachers (Stage 1), employees (Stage 2) and graduates (Stage 3) were investigated. The data discussed in this article was collected as part of Stage 1, which sought to identify ICT teachers' perceptions of the factors that affect the directions they take in their teaching.

A mini-conference program was devised to facilitate the data collection for Stage 1. 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 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 format of the mini-conferences was devised to collect three types of data:

- ICT teachers' reported perceptions about factors to which educational innovations respond
- ICT teachers' reported perceptions about the dissemination of innovation
- ICT teachers' accounts of specific teaching and learning initiatives in which they are involved

Data collection for this phase was highly participative, increasing the quality of engagement with, and the credibility of conclusions about, ICT teachers. The mini-conferences ran from 10am to 4pm on designated days in each capital city. Between four and fourteen people participated in each mini-conference. These small numbers allowed for unstructured discussions. A workbook was used to structure the proceedings of each mini-conference. Two researchers directed the proceedings.

The workbooks contained three questions that were used to stimulate discussion among participants:

- What are the factors driving educational initiatives in ICT education?
- What are the factors inhibiting educational initiatives in ICT education?
- What issues would be involved in disseminating your initiatives to other ICT educators?

For each question, participants were given five minutes to think about and make notes about the question before they were prompted to discuss the issues involved. As issues were raised and discussed, one of the researchers recorded the issues on a whiteboard. This often involved negotiation between participants. At times, the researchers asked for issues to be clarified.

## Analysis

A coding process was used to reduce the data collected. To begin with, a member of the research team coded the contents of the whiteboard records into broad categories. Because of the overlap between the factors described as driving educational initiatives and those described as inhibiting educational initiatives, with many factors raised in both discussion groups, these data were combined for the purpose of analysis. For both the *driving/inhibiting data* and the *dissemination data*, those factors common to all mini-conferences were used as categories. This process resulted in nine broad factors that drive and/or inhibit educational initiatives in ICT education and six key issues involved in the dissemination of educational initiatives (described in Collins & Lynch, 2001).

The factors identified as driving and/or inhibiting educational initiatives in ICT education were labelled personal initiative, changing scale of teaching, changing student population, push for flexible delivery, development of new content, availability of new tools, support from management, restrictions to academic freedom and student demand. These factors have been described in Lynch and Collins (2001). Issues identified as constraining the dissemination of educational initiatives included intellectual property considerations, inter-university competition, risks associated with sharing ideas, a perceived higher value placed on research (than on teaching), a lack of resources to share and access ideas and limited availability of channels of dissemination. These factors have been described in Collins and Lynch (2001).

While these factors and issues assisted in the description of the focus group data, the interactions between factors were complex and have not been explored in previous ICT-Ed Project publications. This paper, focusing on issues raised in relation to practices that can be described as contributing to the scholarship of teaching, builds on previous analyses by proposing a framework that can help to explain the interaction between the factors and issues already described.

## 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.

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.

### **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 as individuals (individual domain), and attributes and responses of universities as organisations (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. Participants' perceptions of these domains are described.

Within the individual domain, two interrelated dimensions were identified. 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. References to the organisational domain described elements of the organisational environment, such as organisational values and institutionalised systems and processes, 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. 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. Because of this perception, 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 treated 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)

The motivational context of the university interacted with the motivational orientation of the individual. 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, np) wrote, "where academic career advancement is strongly linked to achievement in both teaching and research, much has been written about the need to recognise and reward teaching, but little progress made - research rules!" He advocates "the development of strategies to make teaching achievements as equally valued as research achievements, in terms of career progression" (Taylor, 1999, np).

## 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 degree 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 activities in relation to their teacher 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 were 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 first quadrant (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 environment

Elements of the organisational environment seen by participants to affect the pursuit of the scholarship of teaching included institutionalised systems and processes, organisational values and agendas and the organisation's orientation to change and to 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 built 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 about timetabling.

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 to most significantly determine 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 environment* 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, both in terms of environmental factors such as institutionalised processes, systems and values and in terms of 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 a supportive organisational environment
- the organisation was inhibitive, both in terms of institutionalised processes, systems and values 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.

**Figure 2. Two dimensional model of the *organisational domain***

The following quote identifies the first quadrant (Supportive organisational environment, 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 are 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 organisational environment. In terms of supporting or discouraging the pursuit of the scholarship of teaching, participants' perceptions of the relationship between resource allocation and the organisational environment were more simplistic. Discussions indicated that, if the organisational environment was truly supportive and enabling, it would be coupled with adequate resource allocation. Conversely, the lack of resources to support scholarly activities was generally interpreted as the result of an inhibitive organisational environment. Instances of resource support not accompanied with supportive processes, systems and values 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 third quadrant (Inhibitive individual conditions, Inhibitive organisational conditions) was perceived as generally characterising the position of university teachers. The first 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 second or third quadrants.

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, processes and systems 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 her 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.

### Figure 3. Interaction of the Individual and the Organisational Domains

#### Conclusion

Although 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 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, largely driven by the intrinsic motivation of individuals.

Pursuing the scholarship of teaching was seen as risky in terms of extrinsic rewards and career progression. Costs 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 organisational agendas and resourcing.

If the scholarship of teaching is to be promoted, then attention needs to be given to the context of university teaching. The framework described here suggests that the promotion of the scholarship of teaching needs to focus on 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. Organisational 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.

To complement and bolster individuals' motivation (both intrinsic and extrinsic), the organisational domain needs to be supportive. This involves both a supportive environment and the provision of adequate resources. A supportive environment 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.

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