

Address to Academic Senate  
Friday 4<sup>th</sup> May 2007

## **Growing a Research Culture**

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### Abstract

Professor Cheetham has been invited to address the Academic Senate on the topic of Building a Research Culture. In this address Professor Cheetham will tackle the topic from a very broad consideration of what a research culture might look like and why it is important not only to the University of Western Sydney but to the higher education sector in general. Why are so many universities around the world concerned about building their research culture? Having identified what a research culture might be, some strategies and actions for the building and strengthening of our research culture at UWS will be discussed.

Firstly, a few explanatory bio-points by way establishing some "street cred"... The first 15 years of my career (well 19 if you include the PhD) were spent in research only institutions in Australia and Europe studying nuclear fusion energy, followed by 17 years in a teaching University... however I was lucky enough to be recruited by a Dean who wanted, in a new University, to grow the research culture of her Faculty and consequently I got the job despite my lack of any sort of teaching experience at all. She wanted me to help get research culture going in the Faculty, and as a result, not only did I have to teach (and learn to teach in the University context) but also get involved in the research administration and actual research. It was hectic but very productive and in the process I have been involved in the research in the faculty of IT and Engineering, then as Head of School (Engineering), then Deputy Director of the Division of Business, Law and Information Sciences (exposing me to research areas in Business, Law and Social Sciences). Then PVC Research & Information Management (exposing me to research in the health, environmental sciences, creative writing, humanities and education... before coming here to UWS. So I am talking to you today as someone who has some experience in research matters and has seen it from several quite different perspectives. From my 16 weeks experience so far at UWS, I can assure you that while UWS is different, we are not in fact very different; if we start believing that too strongly we will become inward looking, we must keep our vision not only focussed internally but always observing externally, so we can see our context.

So onto the topic under consideration – Research Culture...

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It is interesting to Google "Research Culture", and quite illuminating to read the various articles that appear; after a good deal of filtering. A few firm lessons can be learned:

1. We are not the only institution in Australia that is concerned about research culture – think many
2. Australian Universities are not the only ones that are concerned about Research Culture – think Britain, Canada, USA, South Africa, Botswana...
3. It is not only the "new" universities that are concerned about research culture (think Melbourne University, Sydney...)

So why? Why are we concerned about research culture and should we be concerned?

One could say that New (post 1989) Universities have a problem as they are new and need to build this culture from a lower base, but not only that, it is a matter not just of building but also of changing a culture; this is much more difficult. This is probably a contributing factor but it would not explain the concern shown by older established research Universities; to put it in perspective remember that the average publication rate across the Australian HE sector is only about 1 DEST point per academic per year and that about 40% of Australian Academics have not published in the past 3 years.

I believe that this concern with Research Culture is due to broader effects that are manifestations brought about, by and large, by the extraordinary commoditisation of Higher Education in general. As you know the proportion of the population attending university in 2007 represents huge growth over that attending university in 1970, partially due to the credentialisation of many professions, but also due to rising expectations. Nevertheless, those of us who attended university in the 60s and 70s will remember that staff had more time for research, professors taught first year subjects, PhD students were tutors, and we all knew who the successful researchers were, and in spite of the time available, it was not everyone. Some things do not change.

But with the student numbers rising and the resourcing not keeping up, the pressure is on the staff and so teaching – the service which we provide and forms the basis on which we are paid – becomes the priority. Consequently research suffers to the extent that many universities now are concerned about very Research Culture in their institutions.

If we add to that the fact that UWS (and others) is formerly essentially but not exclusively, a teaching institution, we have the issues of staff who have been here a long time, do not have research experience and indeed have never been part of a "Research Culture". For such institutions this represents not only an issue of declining research culture but a significant culture shift as I mentioned earlier.

One of the questions is, given the changes in the societal context of the Higher Education sector, have we changed enough, quickly enough as the world has changed around us, or have we perhaps tried to cling on just a little too long to what we know, what we knew... to our comfort zone.

The pressure is still on – how should we be teaching the current content to the current students in the current context and how does this impact on research? I would like to digress just a little with the teaching theme as it does light our path.

Teaching in a University is different, we use the same word in primary school, secondary school, TAFE, Teachers Colleges, CAEs etc but it is not the same. One of the major differences is of course the extent to which it (the teaching) is interwoven with research and our research principles. We cannot, in 3 or 4 years, teach the entire content of a discipline (given the growth rate of knowledge this would be futile). So we don't and we don't pretend to; we teach a spectrum of fundamental and advanced content in the context of the discipline and its application and we teach how to find, understand, contextualise, analyse, criticise, apply, describe, explain etc etc. This is where the link to research is the strongest. Sometimes these are referred to as "generic skills"; to me they are much more important, indeed vital, and much more integral to the idea of Higher Education to be given the simplistic tag of being generic, some of them are quite specific.

Interestingly, as if to reinforce this, the University of Melbourne refers to the triple helix, an allegorical reference to the Watson and Crick descriptor, but in this case applied to the intertwining of Research, Teaching and Knowledge Transfer:

And here I quote:<sup>1</sup>

*Research is the first strand (note the first is research), embracing the systematic generation of new knowledge, development of new ideas and experiment with new techniques. These activities inform student learning and provide an intellectual platform for engaging in knowledge transfer.*

*The second strand is Learning and Teaching. It explicates a body of ideas, is informed by available research, and instils habits of inquiry that reflect the provisional nature of knowledge.*

*The final strand is knowledge transfer. It encompasses many dimensions of interaction between academia and the wider society – from the way public intellectuals use media platforms to participate in debate, to policy work for government, industry and communities, to contract research and education services, and to the complex and risky work of creating business ventures to distribute new knowledge.*

I think that this model is enlightening, it interweaves the three strands which build staff (through research) – students (through the T&L) – and the community (through both).

People often will say that without students there will be no university, but equally without good staff there won't be one either.

So, we are concerned about a Research Culture because:

- Research is the basis of how a university education works
- It is the intellectual life blood of our staff
- It should be the fundamental support of our teaching, and
- It is a basis of our support for our community.

What then is a research culture, and would we recognise one if we saw one... indeed can it be seen?

Let us start with research, what is it?

The OECD definition<sup>2</sup>:

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<sup>1</sup> <http://growingesteem.unimelb.edu.au/strategicplan/vision.html>

*Research and experimental development comprises **creative work** undertaken on a **systematic basis** in order to **increase the stock of knowledge**, including knowledge of man (sic), culture and society, and the use of this stock of knowledge to devise new applications.*

My emphasis: Creative work, systematic, increase the stock of knowledge.

The DEST definition is a little more specific to satisfy their own agenda, which is still valid<sup>3</sup>:

*The essential characteristic of research activity is that it leads to publicly verifiable outcomes which are open to peer appraisal. Research and experimental development comprises:*

*creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of humanity, culture and society, and the use of this stock of knowledge to devise new applications.*

*any activity classified as research and experimental development is characterised by originality; it should have investigation as a primary objective and should have the potential to produce results that are sufficiently general for humanity's stock of knowledge (theoretical and/or practical) to be recognisably increased. Most higher education research work would qualify as research and experimental development.*

This is fairly clear but it must be read completely to make sure that you don't leave bits out to suit our own purposes.

Now what about culture... Well now I am on really shaky ground. We have a Research Centre – the Centre for Cultural Research that is renowned and highly regarded... and I am a physicist, so I will vacate this area quickly!!

I will use the standard technique of saying... let's look it up in a dictionary:<sup>4</sup>

**Culture** (from the Latin *cultura* stemming from *colere*, meaning "to cultivate"), generally refers to patterns of human activity and the symbolic structures that give such activity significance. Different definitions of "culture" reflect different theoretical bases for understanding, or criteria for evaluating, human activity.

*Most general, the term culture denotes whole product of an individual, group or society of intelligent beings. It includes technology, art, science, as well as moral systems and characteristic behaviours and habits of the selected intelligent entities. In particular, it has specific more detailed meanings in different domains of human activities.*

Which, I would contend is exactly what we are looking for. It is a whole behaviour that has essentially been learned or cultivated. You only have to think of our own cultures in music, art and science... the moment we stand still, that is fail to keep learning, fail to keep cultivating, our knowledge and experience falls behind the status quo. The fact that this "culture" has to be learned makes it all

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<sup>2</sup> OECD (2002), Frascati Manual: Proposed Standard Practice for Surveys on Research and Experimental Development, OECD: Paris.

[http://www.oecd.org/document/6/0,2340,en\\_2649\\_34451\\_33828550\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/6/0,2340,en_2649_34451_33828550_1_1_1_1,00.html)

<sup>3</sup> 2007 Higher Education Data Collection Specifications for the collection of 2006 data page 8

<sup>4</sup> <http://en.wikipedia.org/wiki/Culture>

the more difficult to change a culture; especially if it has become entrenched, by that I mean a behaviour that has remained static or uncultivated for some time.

As a recent example, the Australian Higher Education (28 March 07) there was an article called "Opinion Trounces Fact", some of you may have read it... an excellent example of a culture change problem. To quote<sup>5</sup>:

*Not long ago a scholar of post-modern thought delivered an honours seminar on the French philosopher Michel Foucault to a class of juniors. Twenty minutes into her explanation of the theory of discourse, one of the students sneered, "well that's his opinion, I don't agree".*

*Stunned, the professor explained that, given the fact the class had only just begun reading the philosopher's work, the first task was neither to agree nor to disagree but to understand exactly what was being argued. Agreement or disagreement was a privilege earned only after having mastered and reflected on the material.*

*Annoyed, the student replied, "Everyone is entitled to an opinion, and my opinion is that he is wrong."*

*Clearly that undergraduate was in no position to contribute in any meaningful way to an evaluation of Foucault's thought, especially in view of the fact that the student had been introduced to the material only a week earlier. Yet in one definitive statement he had dismissed the thought of one of the world's most celebrated post-modern thinkers.*

Here is an interesting culture change, one that should be high on our list of "generic skills" – people on talk-back radio have opinions, in academe we don't we have positions, arrived at by careful evidence based argument, and furthermore those positions can change in the face of further evidence. This is a learned behaviour, a culture.

So what then is a research culture, since that is what we are talking about?

- Research is a learned behaviour; it is started these days in secondary school and is enhanced as we progress through our degrees and careers.
- The research culture is the structure that gives that behaviour significance and that allows us to understand and evaluate the research activity.
- In a university then, the culture is that structure, the cultural structure based around the behaviour of the staff and students that allows us to transfer the knowledge gained through this systematic process to our students and to the community.
- We pass on this and other knowledge to our students in the context of today, not yesterday, but today, along with the ability to analyse the evidence in the context of tomorrow.
- That structure is the cultural context that we must strive to build on – the continuous development. We cannot afford to stop researching, learning or we run the risk that our teaching will decrease, gradually, almost imperceptibly but inexorably in its relevance to tomorrow.

And so to building the culture, something that is discussed at many forums.

Firstly this cannot be accomplished either quickly or easily; progress is bound to be almost as slow as the decline would be if we do nothing.

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<sup>5</sup> The Australian 28 March 2007 PP36 Opinion Trounces Fact, Gary A Olson;  
<http://www.theaustralian.news.com.au/story/0,20867,21457732-12332,00.html>

Over the past few years UWS has made admirable progress by implementing a series of strategies and policies designed to increase research culture and to provide incentives to increase research output. This has been based around focus and concentration; it is a technique being employed by many universities and research institutions. It meets with resistance from those not initially included, not surprisingly. But when starting from a lower base and with limited resources, a system of prioritisation is the only way that we can proceed. There will be times when things don't quite go according to plan, but there must be a plan, this will not work by a random process.

The ultimate aim of course, the nirvana, is that all staff will be research active and will have access to a Research Centre, but that cannot be achieved in one hit. Currently we have eight Research Centres as well as several Research Groups and Concentrations supported at a lower level. We are planning the allocation of the Board of Trustees' funding to increase that number but only based on strategy and, importantly, on demonstrated success. As the Centres succeed and become less dependent, more can be established. In the end this will increase our research culture but will also depend on it; it is a closed feedback system. UWS has broken into the loop by strategy and it is my responsibility to ensure that the plan continues to deliver.

So what should we as academics be doing to build our own research culture at UWS? I have compiled a list of actions that I see to be demonstrably useful; indeed that list was the reason for the invitation to speak here. It is a very task oriented list and is currently forming the basis of discussions at the University Research Committee. I don't really want to go into that level of detail in this forum. It suffices to say that there are many possibilities on the list, many of which we are already doing at UWS. It is now more a case of prioritising those items as to which will have the greatest effect and constructing an implementation plan to ensure that we do it. In general these actions are aimed at raising the level of dissemination, discussion, interaction and mutual support. However there is one particular action of high priority and effectiveness that I do not believe that we, or even many other Universities, are doing correctly, uniformly or even at all, and that is mentoring. This activity of course goes far beyond just research, but it is vital to research as there are so many aspects of the research process that depend on propagation of experience, wisdom and that intangible tacit knowledge. Indeed the mentoring process starts with the supervisor-student relationship and should... must, then continue.

A good mentoring program promotes understanding of the culture of the University and helps staff adjust to new or changing roles and situations. From the research perspective, mentoring networks are very significant contributors to a research culture. All senior staff ought to be mentoring several less experienced staff as well as having their own mentor. It is the intersection and interaction of these research mentoring networks that builds and strengthens the research culture, the symbolic structure mentioned earlier that will give the research its meaning in the institution. This type of academic activity is vital to our research (and not only to the research); it is something that I will be pursuing.

I have tried to cover what was asked of me, but perhaps not in quite the way expected, I haven't produced a ToDo list, that will com later. I also think it may be reasonably confronting, in fact I know it is otherwise why are so many universities, large, small, major, minor, concerned about the issue. I believe that until we understand what a research culture is and why it is important, that

teaching and research are intertwined and should not be separated, we will not be able to truly build a homogeneous research culture.

We will know when we have arrived when the research culture is effectively invisible, when research is nothing special... we will be discussing it over coffee... it will be simply part of what we do as academics as intellectuals. We will no longer discuss research; we will be too busy doing it – and talks such as this, will no longer be necessary.

Thank-you.