The Politics of Medical **Curriculum Accreditation: Thoughts, Not Facts?**

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ABSTRACT

The medical profession needs to adapt to the socio-political challenges of the 21st century. These have been described as the 'Health Society'. Medical professionalism, however, is characterised by conservative values that are perpetuated by the professional attributes of autonomy, authority, and state-sanctioned altruism. The medical education enterprise is a replication and continuation of these values, sanctioned by its accreditation agencies. The Australian Medical Council through its accreditation standards only sanctions the formal curriculum. The status quo, however, is maintained by social, cultural and political parameters enmeshed in the informal and hidden curricula. By not addressing informal and hidden value constructs that maintain elitist medical arrogance the accreditation agency fails to uphold its remit. This paper explores the philosophical and empirical bases of these phenomena and illustrates them by means of a case study. Medical education and its sanctioning structure and agency are confirmed as forceful political enterprises. We conclude that explicit review of the informal and hidden curriculum is a feasible and necessary prerequisite for medical education reform and change.

Kevwords: Accreditation, Australia, Curriculum, Medical Education, Political Analysis

INTRODUCTION

Is accreditation of medical education a commendable technical quality assurance effort, or a superficial political exercise to maintain the power base of the medical profession? The stated purpose of accreditation efforts in medical education is quality assurance for the public good (Karle, 2008). In fact, on reading World Federation for Medical Education documents and quite possibly the constitutional papers of all accrediting agencies around the world, ac-

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creditation is a lofty affair wholly grounded in sound social and philosophical commitments to human well-being and advancement. This is, of course, exactly how the medical profession (and for that matter, every profession apart from, possibly, theoretical astrophysics) wants to be seen, and how most health bureaucracies, industries, and consumer groups prefer to see the induction of new members into the sanctum of medical professionalism.

There is, however, a darker side to medical curriculum accreditation. This perspective relates to the creation, maintenance and protection of power and dominance of a privileged elite. This medical dominance, in terms of educational development, may well start formally with the blessing Medical Schools receive from their accrediting agencies.

In this article we will review the nature and attributes of the medical profession, the functions and agencies it deploys to maintain its socio-economic privileges (autonomy, authority, and state-sanctioned 'altruism' -Freidson, 1970), the construction and role of medical knowledge in formal, informal, and hidden curricula, and the rhetorical efforts that accreditation agencies unleash to maintain the status quo. Having thus constructed a political discourse of medical education accreditation we will conclude this piece with a narrative case study, illustrating these issues in one particular Australian accreditation exercise

Medical Profession: Medical Dominance

In medieval European times, and in many other cultures throughout history, we have witnessed what seems to be a natural drive to organize and distinguish classes, groups, castes, ethnicities, and trades. The trades, in their European contexts, were organized in Guilds. Such Guilds maintained strict access rules, licensure, set tariffs and prices, and enforced a hierarchic system for necessary qualifications. Guilds were conservative associations aiming to maintain the status quo and exacting control over trade qualifications; their purpose was never innovation, market responsiveness or transparency (Ogilvie, 2008) and the Guild system has been blamed for significant social and economic stagnation due to a strict class-exclusive market limitation (as Adam Smith in *The Wealth of Nations* noted¹). In the European medieval social stratification surgeons, recognised as craftsmen, organised themselves into surgeons' guilds (or, if there were insufficient numbers of individuals, they joined the Guild of Blacksmiths, Sigerist, 1935). Physicians, on the other hand, emerged from more philosophical approaches to the human lot, whether they were interpreting dreams (Hippocrates) or seeking life balance (Ayur Veda). In the European university tradition (which

emerged between the 10th and 12th centuries AD, founding a tradition that currently pervades global perspectives on tertiary education and scholarly development) those physicians trained in a strictly regulated system of peer assessment in institutional arrangements that were governed by higher powers, be they city administrations or sovereigns (e.g., the Holy Roman Emperor) . The system included studies of logic (i.e., humanities) and medicine, followed by internships under the guidance of experienced practicing teachers. Each training stage culminated in examinations, and the license that ensued enabled medical practitioners to move between city-states (Sigerist, 1935).

Licensure and accreditation are different aspects of the same phenomenon: they set behavioural, academic and practical standards for the carrying out of medical diagnosis and intervention. Licensure relates to the legitimization of individual practice, whereas accreditation sets and enforces standards for institutional training arrangements. As Porter (1997, p.287) explains: 'Medicine today is organized through structures that grant the profession considerable autonomy under state protection, while claiming to protect the public from malpractice and quackery.'

Throughout modern-post-enlightenmenthistory two options for accreditation have been competing, and preferences for one or the other seem to be grounded in the social construction of either medicine as a public good, or medicine as a form of healing entrepreneurship. There have been two possible accreditation strategies as a result of the discourses around these perspectives, both within state driven statutory codification of the legal conditions to call oneself a medical practitioner (e.g., through Health Acts). One accreditation strategy, and apparently the most dominant one in the Anglo-Saxon world, devolves the authority to regulate medical education to the profession itself. The other one, culturally perhaps better described as 'European Continental', assigns accreditation responsibility to state bodies (which then, in turn, are predominantly filled with medical academics, sometimes supplemented with members from legal and engineering professions, allied health organisations, and community representatives). Roberts (2009) describes how the United Kingdom Parliament debated and passed the 1858 Medical Act. He challenges commonly held assumptions that the resulting professionalization of the medical enterprise was (a) reflecting the 'scientisation' of the field, and (b) grounded in a Foucauldian interpretation that knowledge has to mutate into power as a technique to assert self-interested control. Roberts argues that the professionalization of medicine more profoundly was an instance of society and culture being ready to accept these new roles, very much linking this to, for instance, Latour's Actor-Network Theory (1987) which holds that (individual and institutional) actors and actants (events and issues) form network constellations that allow for new configurations of what is perceived to be real and relevant. This perspective also relates to the concept of the 'hidden curriculum' which we will address below.

In the light of proliferation of medical schools in recent decades to reach about two thousand institutions, the World Federation of Medical Education (WFME) seems to favour peer accreditation over state accreditation (Karle, 2008). This is fully concordant with the parameters put forward by scholars of medical professionalization and medical education sociologists (Brosnan & Turner, 2009). The case study that will conclude this piece will look at the accreditation efforts of the Australian Medical Council (AMC). Interestingly, there are authors claiming that WFME statements have inspired AMC protocol (Karle, 2008) and others that AMC standards are the foundation of current WFME positions (Prideaux, 2009). Whatever the case, it is clear that AMC operates as a state-sanctioned autonomous body with full authority over setting acceptance standards for medical schools in Australia and New Zealand. As such, it is the paramount embodiment of medical professionalization.

Freidson (1970) outlined the elements that characterise a profession. In focusing on the medical profession, he identified that the professionalization effort that started in the early 18th century could best be characterised by precisely these parameters: autonomy, authority, and state-sanctioned altruism. Horner (2000) describes the importance attributed in the profession to the successful attainment of such autonomy (the "freedom to control the process of recruitment, training and practices, and control over the conduct of individual members, who each enjoy the right of clinical autonomy"). This is explicitly still endorsed for some European countries (Jochemsen & Ten Have, 2000) but refuted on moral, economic and ethical grounds by Dupuis (2000). In many post-modern countries, especially in those with universally accessible health care systems, the explicit endorsement of such a conservative and elitist autonomy stance would not hold any longer. The official rhetoric of accreditation bodies would often in fact recognise the egalitarian community roles medical doctors and their institutions need to play.

From the AMC Assessment and Accreditation of Medical Schools: Standards and Procedures, (2009a):

"Doctors must be able to care for individual patients by preventing and treating illness, assisting with the health education of the community, being judicious in the use of health resources, and working with a wide range of health professionals and other agents. They must be able to work effectively, competently and safely in a diversity of cultural environments, including a diversity of Indigenous health environments."

However, a recent study by Mullan et al. (2010) in fact shows that implicit elitist values associated with autonomy and authority drive the explicit quality ranking of medical schools in the United States of America: schools that value and live by virtues of community connection, a curriculum significantly incorporating the humanities, and equity are considered lower in rank than conservative top-clinical research establishments. There is no reason to believe this would be different in other settings. In spite of pronouncements to the contrary, and well-meant efforts to include issues such as social accountability, social justice and sustainability in medical education programmes (e.g., ANZAME, 2011 or Boelen, 2000) the brute reality is that the relentless pursuit of autonomy and authority (and hence, the corollary state-sanctioned altruism) still drives the medical profession.

These three attributes of medical professionalism are nourished and sustained by an elaborate set of institutional and ontological beliefs. This culture is expressed, for instance in "The language of medicine (...) an idiom foreign to the general speech and of discordant sound" (Banay, 1948) and in the existence of internal legislative arrangements (often referred to as 'tribunals') with the power to review and sanction misconduct (e.g., Elkin et al., 2011). The sheer volume of health care, combined with the power base associated with the medical professional monopolists (Alford, 1975, Löfgren, Leahy & de Leeuw, 2011), the pervasive nature of the 'Health Society' (Kickbusch, 2006), and the virtually religious attributions assigned to medicine by society (Illich, 1976, Clerc, 1999) have given the health industry and the medical profession substantially new health and social responsibilities. These should lead to a degree of reflexivity, humility and vigilance on the part of the internal regulators of the profession. In fact, such attitudes are profoundly present in the current medical education literature, in conference agendas around these issues, and even in some professional peak body pronouncements (e.g., RCPSC, 2001). But such values and attitudes have seemingly not led to a radical or paradigmatic shift within the profession.

From the AMC Assessment and Accreditation of Medical Schools: Standards and Procedures, (2009a):

"In Australia and New Zealand, inequalities remain in the health status of various social and cultural groups. Medical schools have a responsibility to select students who can reasonably be expected to respond to the needs and challenges of the whole community, including the health care of these groups.

(...)

Doctors must be aware of the impact of their own culture and cultural values on the delivery of services, historically and at present, and have knowledge of, respect for and sensitivity towards the cultural needs of Indigenous people."

In medical profession regulation, what is said is an entirely different world from what is done. Or, following the argument of Hafferty (1998), what is taught to students is very different from what they learn. This difference can be attributed to the existence, beyond the stated, intended, and formally offered and endorsed curriculum of an informal curriculum ("an unscripted, predominantly ad hoc, and highly interpersonal form of teaching and learning that takes place among and between faculty and students") and a hidden curriculum ("a set of influences that function at the level of organizational structure and culture")(Hafferty, 1998, p.404).

All three curricula are subject to political consideration. Lasswell (1936) provided a useful perspective on politics, describing them as always addressing the issue of Who Gets What, When, How. It is clear that medical school accreditation agencies the world over have a strong desire to make transparent the processes and substance that lead to the establishment and monitoring of the formal curriculum (Karle, 2008; WHO/WFME, 2004). The Australian Medical Council (2009) very explicitly defines norms and standards in the areas of knowledge and understanding of the depth and width of disciplines relating to clinical and societal dimensions of medicine; of skills development in procedural, communicative and evidence-based medicine; and of the development of attitudes affecting professional behaviour. Furthermore, the Council also sets standards for school and university governance, leadership and autonomy, course management, educational expertise, adequate resourcing, relations with the health sector, and the importance of a research base for medical education. This may lead to a belief that implementation of these standards leads to

a hermetic alignment between what is taught and what is learnt by students.

The politics of accreditation, however, are not explicitly mentioned in AMC briefs and documents. Standard setting does not address the more culturally determined patterns of interaction between faculty members, the tolerability of direct informal communication between for instance students and school executives or school executives and university governance officers, timetabling of certain lectures to popular and others to 'graveyard' time slots, implicit signals due to resourcing patterns, acceptability of abysmal frontal lecturing by what are assumed 'brilliant clinicians' (think Dr. Gregory House MD, Koch, 2008), or the (unintended?) consequences of the dominant 'evidence-based medicine' paradigm. Some accreditation parameters (such as the composition of site visit panels) seem to escape principles of good governance altogether.

Hafferty (1998) suggests that further exploration of the presence and impact of the hidden curriculum could be undertaken in four areas: policy development; evaluation; resource allocation; and institutional slang or 'nomenclature'. He maintains that an analysis of each of these could take what we could label a more anthropological perspective (reviewing maintenance or challenge of educational status quo by examining such policies, evaluation practices, resourcing strategies, and 'group speak') or a hermeneutic view (in which these fields constitute data in and of themselves to describe and label narratives that describe the culture and values truly underpinning the whole of the medical school).

"We Don't Want Thoughts – We Want Facts"

Time for an empirical, case-based excursion. Prideaux (2009) has described how medical education in Australia has changed. The model for medical education was grounded in that of Australia's colonial masters (the United Kingdom) and traditionally followed the 6-year university training model that led to the Bachelor of Medicine, Bachelor of Surgery, Bachelor of Medicine and Bachelor of Surgery, or Bachelor of Medicine and Surgery award (note the persistent differentiation between craft and intellectual healing perspectives!). With the establishment of a medical school at the University of Newcastle (a 5-year Problem-Based Learning curriculum) in 1978, and a 4-year graduate entry programme at Flinders University (in 1996), innovation became a permanent feature of medical training in the country.

The Deakin University School of Medicine is both Problem-Based as well as a 4-year graduate entry programme (Weaver & Bates, 2009). It is based on a curriculum lease from the Flinders University Medical School (which included a visiting professor of medical education) enabling Deakin University to access, use, amplify and modify already existing materials and structures. Further innovations include a diversified entry assessment for prospective students (including Multi-Mini Interviews and bonus points for 'equity' students in addition to good results on the Graduate Medical Schools Admission Test (GAMSAT) and previous degree Grade Point Average). The assessment of personal prospective student qualities in medical schools admissions is a hotly debated issue (e.g., Albanese et al., 2004, and Dodson et al. 2009) and -- although the Deakin University Medical School has adopted a clear rhetoric that its graduates need to be the all-round health personnel of the future -- efforts to include personal traits, experience, rurality and commitment to health and social change and development ultimately yield to the raw numbers of GPA and GAMSAT.

In response to the changing community health landscape (with the stated mission of the School to serve rural and regional Australia) a novel curriculum design includes four integrated themes (Knowledge of Health and Illness – with a formal curriculum load of 50% in pre-clinical and 37.5% in clinical years; Doctor and Patient – 25 and 37.5%; Ethics, Law and Professional Development ELPD – 12.5%; and Doctors, Peoples, Cultures and Institutions DPCI - 12.5%) across the two pre-clinical and subsequent two clinical years.

Students spend their clinical rotations in Rural Clinical Schools (Eley, Baker & Chater, 2009) or in the primary health care based Integrated Model of Medical Education in Rural Settings (IMMERSe; a Deakin modification of the Parallel Rural Community Curriculum, Hudson et al., 2010). Where in other Australian medical schools the teaching of non-clinical subjects (such as ELPD and DPCI) is left to clinical supervisors in bedside-teaching settings, the Deakin University School of Medicine takes full advantage of modern information technology and delivers innovative content and structures over the internet – for ELPD through medical simulations involving ethical and moral scenarios, and for DPCI using 'Reflective Asynchronous Learning Teachnology in Medical Education – ReALTiME'. ReALTiMe streams interactive sets of video and learning materials to student terminals in their rural and regional placements, and invites students to reflect on these materials and their rotation experiences using the dynamic Wikimedia technology.

The above establishes the formal curriculum of the Deakin University School of Medicine. The realities of the informal and hidden curricula, and how both of them go unchallenged by the official AMC accreditation process, are more wicked. Term 'wicked' is used here consciously: "wicked problems are those that are ill-defined, ambiguous and associated with strong moral, political and professional issues" (Westbrook et al., 2007). In the remainder of this case study we will focus in particular on the Doctors, Peoples, Cultures and Institutions DPCI theme within the Deakin University School of Medicine as this is an arena where such moral, political and professional tensions are inherent, and sometimes acutely play out. We will follow Hafferty's arenas of contention introduced above, and focus on processes and observations associated with the AMC accreditation exercise. We will exclude the 'language' element as, in our view, taking this into account would require a more substantial semiotic-hermeneutical analysis (see, for instance, Nessa, 1996, describing the potential of text and imagery analysis in

medical practice and education). Our data derive from DPCI Theme Guides (available to students through the university on-line Learning Management System), the submissions by Deakin University to AMC (notably the 2009 one, Deakin University, 2009), the AMC 2009 report (Australian Medical Council 2009b) and personal –possibly biased- observation.

Policy Development

The development of DPCI and ELPD themes was a radical departure from the leased Flinders University construct. In the Flinders concept (as in many Australian medical schools), both ELPD and DPCI fell under a theme called 'Doctor, Community and Society' (DCS). The separation, and the DPCI 'brand', appeared to have gone relatively unnoticed through both Deakin accreditation submissions, the AMC team visit, and accreditation reports. Almost matter-of-factly there was a perception that the DPCI Theme became a reflection of status quo. The Theme set an ambitious agenda with advanced university level teaching in subjects ranging from sociology and anthropology to health economics; statistics and epidemiology training is offered; and topic matter includes learning opportunities around issues such as cultural awareness, chronic disease, logic and reflection, and disability. In policy statements across the various accreditation documents. though, the importance and prominence of DPCI was only superficially and symbolically acknowledged, and where this did happen, most often in the context of Indigenous Health. The result of the forces of the informal and hidden curricula were therefore that, although the institutional message on DPCI appeared unambiguous, in the undercurrent of the learning discourse among students (and reinforced by a generation of clinicians that may not have had opportunity of exposure to the social model of health) the reality was that it was marginalised.

This is possibly best described by the feedback students provided on the teaching of Evidence-Based Medicine in the Theme, where in a Socratic debate the case under study became

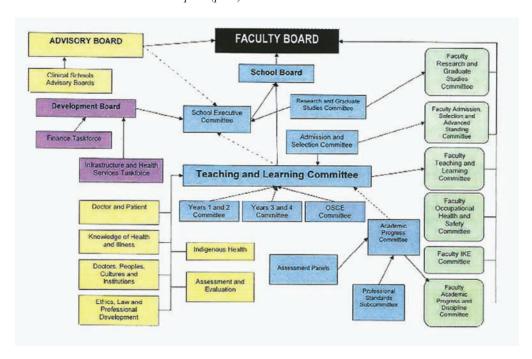


Figure 1. Governance structure of the Deakin University School of Medicine as sanctioned by the 2009 AMC Accreditation Report (p.10)

increasingly removed from the randomised controlled trial Golden Standard: "We don't want thoughts," students demanded, "We want facts. "It appears that the Evidence-Based nature of medical education, and the apparent instant availability through fast and powerful search and browsing technologies of unequivocal 'facts' has led to a degree of MacDonaldisation in medical learning. Thinking about options, considering one's own stance on globalisation and other challenging issues, reflecting on matters of life and death, seems beyond many medical students in a universe where clinicians tell them that they can and need to rely on the facts, and only the facts.

From the Deakin 2009 submission:

"The School's relationship with its clinical schools will be managed at the level of the School of Medicine Executive Committee and the Teaching and Learning Committee and by direct communication between the Head of School and the Directors of Clinical Studies.

(The School Board was originally intended to function as the peak decision-making committee within the School of Medicine, reporting directly to the Faculty Board. However, in practice the School Executive Committee and Teaching and Learning Committee have assumed this role and the main purpose of the Board is to provide information to staff and students. The Board is chaired by the Head of School and membership is open to all staff and two student representatives)."

The incongruence between the above statement and the formal organigram that has been sanctioned in the 2009 AMC accreditation report is remarkable (figure 1).

The organigram suggests three important bodies in the planning and governance of the medical programme: the Teaching and Learning Committee, the School Board, and Faculty Board. For such a structure, and if reporting mechanisms are appropriate and transparent, governance indeed would meet adequate public and corporate standards (Strenger, 2004). The reality that the School Executive Committee is the hub of governance makes its decisionmaking processes less transparent and potentially idiosyncratic. De Boer & Goedegebuure (2001) describe the tension between two tertiary education governance models ((inter-) collegiate on the one hand, and soft or hard managerialism on the other) and surmise that the changing entrepreneurial context of universities calls for a hybrid in which checks and balances of internal versus external modalities can be considered (cf. also Ritzen, 2010). The enlightened despotism that is reflected in a system where a small executive has full control over resource allocations does not seem to be fit to address such challenges. The Medical School governance structure, it should be noted, is also much more authoritarian and nodally concentrated than similar structures in other Faculty Schools or even other Deakin University Faculties. In the context of medical professionalism and its sanctioning, apparently any personal idiosyncracies that exist between the university governance system and health services executives and clinicians in the region constitute a solid foundation for the proper running of a Medical School according to the 2009 AMC Accreditation Panel.

The 'governance drift' from the formal framework of Figure 1 to a more individualdriven perspective demonstrates the strength of a hidden curriculum where values of professional collegiality may be more important than those of corporate governance, a point reinforced by Hafferty & Castellani (2009). They suggest that 'power and personality are more important than patients' (p.31) and that thus the intraprofessional efforts to maintain the status quo (through the hidden curriculum) may ultimately breach the ethical-professional standards that are 'taught' in the formal curriculum.

Evaluation

The evaluation component of Hafferty's framework in our view relates to both assessment of student progress, as well as the evaluation by

students of the quality and substance of the teaching they receive.

The DPCI theme addresses specifically the complex community health context in which the current and next generations of medical practitioners will work. This context includes the shifting burden of disease from acute conditions and infectious diseases to sub-acute and chronic disease, including the social determinants of health, as well as equity and management considerations. In Australia, many of these issues are exacerbated by the tyranny of distance (e.g., McLeod & Barbara, 2005) and the embarrassment of the enormous morbidity and mortality inequities between Aboriginal Australians and others (Marmot, 2005). Assessment procedures should enable students to demonstrate their understanding and appreciation of those complex contexts, and would have to allow them to reflect on the roles they will be expected to play. A simple regurgitation of facts and definitions through multiple choice or short answer questions (MCQs and SAQs, as employed in the other teaching themes) does not enable the demonstration of those learning outcomes. The DPCI theme therefore administers open-book examinations with essay-type answers (500-700 words). Typically such an approach allows students with arts and humanities backgrounds to perform better than those with pure science or biomedicine backgrounds. This has been an explicit choice in structuring both the formal and informal curriculum.

However, in the 2009 School of Medicine self-study it was reported that "The main issues identified during Years 1 and 2 were (...) relatively high rates of borderline scores in DPCI and ELPD assessments." (p.50) Coordinators of both themes agreed this was a fair reflection of the inaptitude of some students to address the complex context of medicine. The hidden curriculum message was that strict assessment of clinical education 'makes the difference' (this is, ultimately, where patients live or die, the prevailing opinion holds). DPCI and ELPD wouldn't be such dichotomous 'life or death' (or would it be 'thought or fact'?) contested arenas². Through peer and systems pressure (and personal intervention by the Head of School) assessment preparation and implementation were modified, and no students since early 2010 failed DPCI assessments.

This cultural element of the hidden curriculum clearly has an impact on student perceptions of the quality of teaching. In the 2009 submission to AMC it is reported to the accreditation panel that ... (S)tudents are provided with several avenues to contribute feedback:

- Online feedback on DSO on the effectiveness of learning resources (including the PBL tutorials) and group processes at the time of release of the weekly learning objectives.
- Specific discussion boards on DSO for each unit, theme and topic.
- Participation of student representatives in the Teaching and Learning Committee and other School committees.
- SETU (Student Evaluation of the Teaching *Unit)* surveys at the end of each semester.
- One or two meetings each semester of representatives of each PBL group and the Director of Pre-Clinical Studies.
- Meetings of representatives of the Medical Students Society and the Director of Pre-Clinical Studies and/or Head of School. (p.55)

There is evidence from reviews of student evaluations of teaching that a match between student and instructor cognitive styles results in more positive evaluations of instructor effectiveness (Sojka, Gupta & Deeter-Schmelz, 2002): would-be doctors like to be taught by real doctors, other learning opportunities are suspect. Pitkala and Mantyranta (2003) provide a concise review of the literature around protoprofessionalisation and socialization of medical students. Although much of this literature focuses on the first clinical year as pivotal in the socialization process towards values that are seen as reflecting medical professionalism, (some) pre-clinical medical students already espouse this value system. This suggested incongruence between intellectual-cognitive styles allows students to provide this type of feedback: "Ev's lectures are convoluted, boring, meaningless and annoying". Such student feedback goes unchallenged by the School governance structure. There is no explicit standard, either in AMC Accreditation, or at University or School levels, that would allow for a constructive discourse around such (emotive) student statements. The implicit political beliefs and choices that emanate from the hidden curriculum, similarly, remain uncontested.

A similarly cynical feedback sample reads "It is always a bad sign when you have to start reading after the lecture, that not all the information there is to learn about can be conveyed in 50 minutes. "Again, through this quote a number of messages are sent from the land of the hidden curriculum: students expect bite-size and readymade chunks of (often mnemonically easily processed) knowledge ("...all the information there is to learn about...); they feel challenged reading and/or deciding what to read ("...you have to start reading ... "); and that they have a validated basis to ground such assertions in ("It is always a bad sign..."). Apart from the (proto-)professionalization and socialisation patterns described above this representative quote also suggests another important element of the hidden curriculum.

Both in the choices the new Deakin University School of Medicine made in its establishment phase as well as in the AMC Accreditation documentation there is an implicit assumption of the 'good value' of Problem-Based Learning (as a dominant pedagogical model in Australia), e.g., Schmidt, Rotgans & Yew, 2011. Characteristics of PBL are that (1) learning is driven by challenging, open-ended, ill-defined and ill-structured problems; (2) students generally work in collaborative groups; and (3) teachers take on the role as "facilitators" of learning. In PBL, students are encouraged to take responsibility for their group and organize and direct the learning process. This 'PBL value proposition' suggests that students actually want to learn and explore; recognise the value of joint problem-solving; and are used to cognitively analyse and dissect complex issues. It is out of the ordinary, then, that students who are engaged, supposedly for 50% of their pre-clinical learning, in a PBL system find it troublesome to process "thoughts, not facts" lectures through self-directed learning styles. Although evidence has yet to be compiled it could be surmised that in some medical schools there has been 'PBL fatigue' and that the pedagogy does no longer embrace student-centred learning values. In a system where accreditation practice is considered a-political, and where universities and their constituent parts are to attain hard, specific output-oriented key performance indicators, the processes of education may vanish in the fogs of thought.

The wording, style and general suggestive nature of student feedback demonstrates that. although the formal curriculum is inclusive in its support of DPCI, things shift in the informal and hidden curriculum. The means and modes of student assessment are not explicitly addressed in the accreditation documentation, and the fact that they are different from mainstream medicine clearly drives a strong informal curriculum perception that DPCI is different, and possibly irrelevant altogether. This view, finally, goes unchallenged in the hidden curriculum. In fact, the culture of the medical school allows for direct interaction between individual students and the Head of School (part of the same cultural 'set' cf. Sojka, Gupta & Deeter-Schmelz, 2002)3 which would sustain and reinforce the values of the hidden curriculum

Resource Allocation

Curriculum resources are more than just financial. Resources also include space, time, access to money, credit and wealth, control over information, esteem or social standing, legitimacy, solidarity, intelligence, education and perhaps even one's energy level-parameters remarkably close to the source of power as described by Dahl (1961). Of course money can buy some of these, but not all. The allocation of resources is intimately a power game, and it is worthwhile to review relevant statements from the 2009 Deakin accreditation documentation:

p.7: All decisions on distribution of the School's operational budget are made by the School Executive Committee. (...) Operational expenditure was less than budgeted in 2008 because of lower than expected salary costs. Delays in staff recruitment and recruitment at lower levels of seniority than originally planned both contributed to this outcome.

p.30: (in Yr3) Approximately one day of formal learning activities will be provided each week.

p.61: The medical school precinct on the Geelong Campus at Waurn Ponds has been designed to accommodate an annual intake of 180 students.

The above is a formal response to the AMC Accreditation standard on resourcing which reads "The medical school has a clear line of responsibility and authority for the curriculum and its resourcing, including a dedicated educational budget. There is sufficient autonomy to direct resources in order to achieve the mission of the school and the objectives of the medical course." In the informal and hidden curricula. though, the Medical School seems to have taken its standards of authority and autonomy over resources to an unprecedented level relative to any other Deakin University programme.

The establishment and maintenance of a new medical school, it should be acknowledged, is unlike any other curriculum development enterprise. In Australia, funding universities is a complex exercise with contributions from the Commonwealth, State and a range of quasiautonomous non-governmental organisations (QUANGOS). The Health Workforce Australia (HWA) agency, for instance, works for "workforce planning, policy and research; clinical education; innovation and reform of the health workforce; and the recruitment and retention of international health professionals." (Health Workforce Australia, 2011). In particular, HWA funds clinical placements on the basis of university applications. More importantly, though, through a process of (politically driven) resource allocations the Commonwealth Department of Health funds the establishment of Rural Clinical Schools RCSs: in 2009, in the lead-up to federal elections, the Deakin University Medical School (located in electoral 'seats' that were perceived to be under threat) received AUD 16,000,000 for their establishment (Department of Health, 2009). Although RCS policy refers symbolically to community health and in particular the importance of Indigenous health, the actual funding allocations do not materialise in an expansion of teaching or research capacities in DPCI, but rather in infrastructure development (including the acquisition and renovation of 'hardware' - health care facilities, and student housing).

The 'regular' operational budget of the Medical School for 2011 amounts to about AUD 20 million; approximately half of this budget is allocated to staffing. The dedicated staff budget for DPCI personnel amounts to about AUD 300,000 (and this includes research and service time). This is therefore about 3% of the total staff allocation. Although one might be critical of the fact that 3% of the staffing budget stands in no proportion to the 12.5% curriculum time devoted to DPCI this pattern is consistent with other evidence. First of all, medical professionals tend to receive remunerations that include bonuses such as 'clinical loading' or 'market retention' contributions4. Secondly, a 3% dedicated budget to DPCI is consistent with proportions of national budgets allocated to organised public health and prevention programmes in OECD nations. Data from the European Union (Organization for Economic Cooperation and Development, 2011, p. 109) show that for European health care systems there is an EU average of 2.9% devoted to these issues, ranging between 0.7% and 6.0%. It is intriguing to observe that the stated objectives of medical school accreditation and the mission of the Deakin Medical School demonstrate a strong commitment to health equity and community health, but that the reality demonstrates that no substantive resource shift towards those commitments is implemented: the status quo is maintained.

During its 2007 accreditation visit the AMC panel observed that there were concerns around workload in all areas of the Medical School. The coordinator of the DPCI theme consistently argued for better and more sustainable academic and administrative resourcing of the theme, rather than relying on 'external' expertise. Recommendation (x - 10) of the 2009 panel reads as an area of concern "x. the appointment of staff within the School of Medicine to support the theme Doctors, Peoples, Cultures and Institutions (DPCI)". Although the AMC panel commends the School for its Staff Management Plan (which allocates and projects staffing but is not publicly available to School staff) it mysteriously took another two years for the School to appoint a dedicated lecturer to DPCI (in 2011). It shows that AMC accreditation panels do not appropriately engage with cultural, social and infrastructural dimensions of the hidden curriculum and their patterns of resource allocation.

This is perhaps most profoundly visible in the unique position the Medical School has assumed in the logistics and policy environment of Deakin University. In 2008 the University decided to implement a controversial change to its timetabling. It used to have two 15 week semesters and a Summer period (for intensives or short courses), and decided it was in the interest of students to have the option to study across three equal-length trimesters of 12 weeks. Although the change initially caused enormous upset (Rowbotham, 2008) the university commissioned an external review and decided, in 2011, to maintain the trimester system with substantial improvements. Considering the level of anxiety and concern associated with the change, and the resolve of the University Executive to maintain is innovative stance, it can only be seen as a powerful function of Medical School autonomy and authority that it was allowed to have its own, unique, two-semester system which runs out of sync with any other. Medical School semesters start earlier and conclude later. Policy exemptions have been granted for assessment reporting procedures, student feedback protocols, progressions rules and census dates, to just list the major ones. None of these are explicitly mentioned or even alluded to in the AMC accreditation report.

'Time' and 'access', as final resource examples, have also been considerations in teaching DPCI in the clinical years of the programme. In benchmarking DPCI teaching for these years, it was found that in virtually all Australian medical schools there is an assumption that clinicians would have the expertise, dedication and time to substantially integrate community health matters in bedside teaching. However, the variation across individual teaching efforts and the challenges related to maintaining coherence and quality assurance across the different clinical rotations led to a conclusion that dedicated (albeit on-line) contact hours were required. This caused considerable consternation among clinicians and the Directors of Clinical Schools. They maintained that dedicated timeslots for DPCI would potentially take away valuable clinical learning opportunities for students. The ReALTiME approach mentioned above was introduced as an alternative: students would have to engage in semi-self-directed (but examinable) learning efforts that required significant skills in time management in environments that already put a lot of (shift) pressure on them. Many students initially resisted this approach and voiced significant concerns that the Theme took up inordinate amounts of their time. Toward the end of the first cohort's journey through ReALTiME, though, feedback became more positive (student quotes):

"Thank you also for your dedication and all your efforts in designing and delivering us DPCI over the past 4 years and giving us a deeper insight into what it means to be a doctor in the big picture."

"Anyway I just wanted to say that I think the DPCI topics have been really relevant to our future roles as doctors and having had an interview today I know they impact on the way we think about patients and the cultural, sexual and other issues surrounding their care. I think its something which separates Deakin

from other medical schools and I think this will shine through for us."

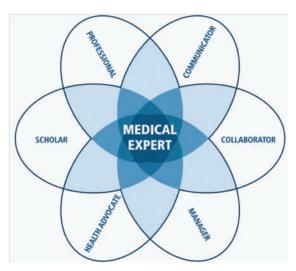
When reporting this to the Committee meeting with the Directors of Clinical Schools, however, clinicians responded in pejorative and derogatory ways to such feedback ("Oh no – that must be the odd one out!"). Once more – the hidden curriculum continues to pervade the formal governance arrangements of a medical programme.

CONCLUSION

We have reviewed the extent to which AMC Accreditation standards incorporate aspects of the hidden curriculum. This was deemed an important task as the context of medical education is morphing, and the authority, autonomy and special relations of the profession with the state are shifting. The hidden curriculum in its raw essence is a cultural and socio-political constituent of medical education and possibly the most important element that contributes to the conservative stance to maintain status quo in the profession. The political nature of medical education and its accreditation approaches is possibly best illustrated with a reference to the CanMEDS framework of essential physician competencies developed by the Royal College of Physicians and Surgeons of Canada (RCPSC, 2001).

These value based competencies are also espoused by the Postgraduate Medical Council of Victoria in their mapping exercise of undergraduate and graduate entry medical courses in the state (Postgraduate Medical Council of Victoria, 2009). Although the Australian Medical Council clearly is not divorced from these values it appears that in its accreditation standards the organisation has carefully and deliberately avoided to include considerations that would suggest that this value system explicitly be addressed in Medical School governance, processes, and outcomes. Interestingly. the situation in North America is different. This happened partly because of shifting chal-

Figure 2 CanMEDS framework of essential physician competencies (Copyright © 2009 The Royal College of Physicians and Surgeons of Canada. http://rcpsc.medical.org/canmeds). Reproduced with permission.



lenges to the role of the medical professional for health (to include, for instance, the social determinants of health, social justice, equity and accountability issues, etc.) and partly in response to the recognition of changing roles of doctors in society. Kickbusch (2006) has described these shifts as moving toward the 'Health Society'. To address these changes, and radically different from the Australian scene, the Committee on the Accreditation of Canadian Medical Schools (CACMS) and the Liaison Committee on Medical Education (LCME) in the United States adopted a new accreditation standard that requires medical schools in North America to provide opportunities for service-learning to medical students (see Dharamsi et al., 2010). Service-learning, it was felt, would enable students to appreciate the significance of these new perspectives and value their political dimensions, and Dharamsi et al. (2010) document how engaged, committed and value-driven learning in community health contexts can contribute to the development of a generation of medical practitioners that can balance professionalization parameters with social responsibility. A point of concern may be that the cases Dharamsi et al. describe may well

have been self-selected on preconceived social accountability personal attributes. Anecdotally, ELPD and DPCI Themes at the Deakin Medical School see about 30% of each student cohort 'not wired correctly' for social accountability behaviours; in jest there is the anticipation that these students will choose pathology as a specialism so as to avoid contact with real people in the real world.

Crucially and essentially a political choice, a service-learning accreditation standard would allow for an explicit discourse in the accreditation process of medical education around the differences between the formal, informal and hidden curriculum. This, in turn, would mediate the necessary shift from conservative medical professionalism toward an engaged, social and health entrepreneurial role for the medical practitioner of tomorrow (De Leeuw, 1999). What would be required to challenge the implicit values of the informal and hidden curricula is an explicit statement a la the Can-MEDS framework (above) that medical practitioners of tomorrow need to be taught by society today. The current wave of efforts in inter-professional education leaves a lot to be desired in evidence generation (e.g., Reeves et

al., 2010) but it is clear that community engagement – beyond the medical instruction paradigmwill be of the utmost importance. The efforts to maintain the a-political and technocratic nature of the AMC Accreditation process in fact sustain the highly political consequences and values of the hidden curriculum, as our case material substantiates.

As long as the hidden curriculum and the political processes that underpin and reinforce it are absent from accreditation agendas we will continue to see 'reform without change' in medical education (Bloom, 1988). In a globalising world where the recognition of the importance of the social determinants of health becomes ever more poignant this is the very last we need. The Health Society needs 'out' politically astute health professionals, not just disease specialists who may serve their implicit internal professionalization agendas.

REFERENCES

Alford, R. R. (1975). Health care politics: ideological and interest group barriers to reform. Chicago, IL: University of Chicago Press.

Australia and New Zealand Association for Health Professional Educators (ANZAHPE). (2011). 2011 ANZAHPE Conference: Health Professional Education for Social Accountability. Adelaide, SA, Australia: Author.

Australian Medical Council (AMC). (2008). Submission to the Review of Australian Higher Education. Kingston, ACT, Australia: Author. Retrieved July 27, 2011, from http://www.deewr.gov.au/Higher-Education/Review/.../Submissions2008/301AustM edicalCouncil.pdf

Australian Medical Council (AMC). (2009a). Assessment and accreditation of medical schools: Standards and procedures. Kingston, ACT, Australia: Author.

Australian Medical Council (AMC). (2009b). Accreditation Report. Deakin University, School of Medicine, Nov 2009. Kingston, ACT, Australia: Author.

Banay, G. L. (1948). An introduction to medical terminology I: Greek and Latin Derivatives. Bulletin of the Medical Library Association, 1, 1–27.

Berkman, L. F., & Sivaramakrishnan, K. (2008). WHO commission on the social determinants of health: A bold new venture. European Journal of Public Health, 18(6), 547. doi:10.1093/eurpub/ckn104

Bloom, S. (1988). Structure and ideology in medical education: an analysis of resistance to change. Journal of Health and Social Behavior, 29, 294–306. doi:10.2307/2136864

Boelen, C. (2000). Towards Unity for Health. Challenges and opportunities for partnership in health development (Rep. No. WHO/EIP/OSD/2000.9). Geneva, Switzerland: World Health Organization.

Brosnan, C., & Turner, B. S. (Eds.). (2009). Handbook of the sociology of medical education. New York, NY: Routledge.

Cilliers, P. (1998). Complexity and postmodernism. Understanding complex systems. London, UK: Routledge.

Clerc, O. (1999). Médecine, religion et peur: l'influence cachée des croyances. Saint-Julien-en-Genevois Cedex. France: Editions Jouvence.

Dahl, R. A. (1961). Who governs? Democracy and Power in an American City. New Haven, CT: Yale University Press.

de Leeuw, E. (1999). Healthy cities: Urban social entrepreneurship for health. Health Promotion International, 14(3), 261–269. doi:10.1093/heapro/14.3.261

Deakin University. (2009). Deakin Medical School. Stage Three Submission to the Australian Medical Council. Expanding horizons for medical education and research. Geelong, VIC, Australia: Author.

Department of Health. (2009). The Australian Government will provide \$16m to Deakin University to expand their medical program by setting up a Rural Clinical School program with major sites at Geelong, Warrnambool, Ballarat, and Camperdown. Retrieved July 26, 2011, from http://www.health.gov.au/ internet/ministers/publishing.nsf/Content/mr-yr09nr-nr109.htm?OpenDocument&yr=2009&mth=07

Dharamsi, S., Richards, M., Louie, D., Murray, D., Berland, A., Whitfield, M., & Scott, I. (2010). Enhancing medical students' conceptions of the CanMEDS Health Advocate Role through international service-learning and critical reflection: A phenomenological study. *Medical Teacher*, 32(12), 977–982. doi:10.3109/01421590903394579

Dupuis, H. (2000). Professional autonomy: a stumbling block for good medical practice. An analysis and interpretation. Theoretical Medicine and Bioethics, 21(5), 493–502. doi:10.1023/A:1009929523944

- Eley, D., Baker, P., & Chater, B. (2009). The Rural Clinical School Tracking Project: More IS better -Confirming factors that influence early career entry into the rural medical workforce. Medical Teacher, 31(10), 454–459. doi:10.3109/01421590902850857
- Elkin, K. J., Spittal, M. J., Elkin, D. J., & Studdert, D. M. (2011). Doctors disciplined for professional misconduct in Australia and New Zealand, 2000–2009. *The Medical Journal of Australia*, 194(9), 452–456.
- Freidson, E. (1970). Profession of medicine: A study of the sociology of applied knowledge. New York, NY: Harper & Row.
- Hafferty, F. W. (1998). Beyond curriculum reform: confronting medicine's hidden curriculum. Academic Medicine, 73(4), 403–407. doi:10.1097/00001888-199804000-00013
- Hafferty, F. W., & Castellani, B. (2009). The hidden curriculum. A theory of medical education In Brosnan, C., & Turner, B. S. (Eds.), Handbook of the sociology of medical education (pp. 15–35). Hoboken, NJ: Routledge.
- Health Workforce Australia. (2011). Health Workforce Australia. Retrieved July 26, 2011, from http:// www.hwa.gov.au/
- Horner, J. S. (2000). Autonomy in the medical profession in the United Kingdom - an historical perspective. Theoretical Medicine and Bioethics, 21(5), 409–423. doi:10.1023/A:1009969205289
- Hudson, J. N., Weston, K. M., Farmer, E. E., Ivers, R. G., & Pearson, R. W. (2010). Are patients willing participants in the new wave of community based medical education in regional and rural Australia? The Medical Journal of Australia, 192, 150–153.
- Jochemsen, H., & Ten Have, H. (2000). The autonomy of the health professional: an introduction. *Theoretical Medicine and Bioethics*, 21(5), 405–408. doi:10.1023/A:1009918921219
- Karle, H. (2008). International recognition of basic medical education programmes. Medical Education, 42, 12–17. doi:10.1111/j.1365-2923.2007.02907.x
- Kickbusch, I. (2006). The health society: the need for a theory. Journal of Epidemiology and Community Health, 60, 561.
- Koch, T. (2008). The doctor in this House: lessons from TV's Gregory House, M.D. Canadian Medical Association Journal, 178(1), 67–68. doi:10.1503/ cmaj.071557
- Lasswell, H. D. (1936). Politics: Who gets what, when, how. New York, NY: McGraw-Hill.

- Latour, B. (1987). Science in action: How to follow scientists and engineers through society. Milton Keynes, UK: Open University Press. Lewis, C. (2003). Exploring the biological meaning of disease and health. Retrieved November 1, 2011, from http://sites.google.com/site/silewis55/presentations/ vienna2003
- Löfgren, H., Leahy, M., & de Leeuw, E. (2011). Participation and democratization in health and health care . In Löfgren, H., de Leeuw, E., & Leahy, M. (Eds.), Democratising health: Consumer groups in the policy process. Cheltenham, UK: Edward Elgar.
- Marmot, M. (2005). Social determinants of health inequalities. Lancet, 365, 1099-1104.
- Mason, P. R., & Tattersall, M. H. N. (2011). Conflicts of interest: a review of institutional policy in Australian medical schools. The Medical Journal of Australia, 194(3), 121-125.
- McLeod, S., & Barbara, A. (2005). Online technology in rural health: Supporting students to overcome the tyranny of distance. The Australian Journal of Rural Health, 13(5), 276–281. doi:10.1111/j.1440-1584.2005.00717.x
- Mullan, F., Chen, C., Petterson, S., Kolsky, G., & Spagnola, M. (2010). The social mission of medical education: Ranking the schools. Annals of Internal Medicine, 152(12), 804–811.
- Nessa, J. (1996). About signs and symptoms: Can semiotics expand the view of clinical medicine. *Theoretical Medicine and Bioethics*, 17(4), 363–377. doi:10.1007/BF00489681
- Organization for Economic Cooperation and Development (OECD). (2011). *Health at a glance: Europe* 2010. Paris, France: Author.
- Pellegrino, E. D., & Thomasma, D. C. (1981). A philosophical basis of medical practice. Towards a philosophy and ethic of the healing professions. Oxford, UK: Oxford University Press.
- Pitkala, K. H., & Mantyranta, T. (2003). Professional socialization revised: medical students' own conceptions related to adoption of the future physician's role--a qualitative study. Medical Teacher, 25(2), 155-160. doi:10.1080/0142159031000092544
- Porter, R. (1997). The Greatest Benefit to mankind. A medical history of humanity from antiquity to the present. London, UK: Fontana Press.

Postgraduate Medical Council of Victoria (PMCV). (2009). Mapping of University Medical Curricula and Hospital Rotations to the Australian Curriculum Framework for Junior Doctors. Fitzroy, SA, Australia: Author.

Prideaux, D. (2009). Medical education in Australia: Much has changed but what remains? Medical Teacher, 31(2), 96–100. doi:10.1080/01421590802509157

Ritzen, J. (2010). A chance for European Universities. Or: Avoiding the Looming University Crisis in Europe. Amsterdam, The Netherlands: Amsterdam University Press.

Roberts, M. J. D. (2009). The politics of professionalisation: MPs, Medical men, and the 1858 Medical Act. Medical History, 53, 37–56.

Rovelli, C. (2011). The uselessness of certainty. Retrieved November 1, 2011, from http://www.edge. org/q2011/q11_4.html#rovelli

Rowbotham, J. (2008). Union fights Deakin over trimesters. The Australian Higher Education Supplement. Retrieved July 26, 2011, from http://www.theaustralian.com.au/higher-education/union-fights-deakin-over-trimesters/storye6frgcjx-1111116649460

Royal College of Physicians and Surgeons of Canada (RCPSC). (2001) The CanMEDS physician competency framework better standards. Better physicians. Better care. Ottawa, ON, Canada: Royal College of Physicians and Surgeons of Canada. Retrieved July 26, 2011, from http://rcpsc.medical.org/canmeds/ index.php

Sigerist, H. E. (1935). The history of medical licensure. Journal of the American Medical Association, 104(13), 1057–1060. doi:10.1001/ jama.1935.02760130007002

Sojka, J., Gupta, A. K., & Deeter-Schmelz, D. R. (2002). Student and faculty perceptions of student evaluations of teaching: A study of similarities and differences. College Teaching, 50(2), 44–49. doi:10.1080/87567550209595873

Strenger, C. (2004). The Corporate Governance Scorecard: a tool for the implementation of corporate governance. Corporate Governance: An International Review, 12(1), 11-15. doi:10.1111/j.1467-8683.2004.00339.x

Weaver, J., & Bates, C. (2009, August 31-September 4). Positioning medical students' information fluency through the curriculum and beyond. In *Proceedings* of the 10th International Conference on Medical Librarianship: Positioning the Profession, Brisbane, QLD, Australia (pp. 1-22). Retrieved from http:// espace.library.uq.edu.au/view/UQ:179909

Westbrook, J. I., Braithwaite, J., Georgiou, A., Ampt, A., Creswick, N., Coiera, E., & Iedema, R. (2007). Multimethod evaluation of information and communication technologies in health in the context of wicked problems and sociotechnical theory. Journal of the American Medical Informatics Association, 14(6), 746–755. doi:10.1197/jamia.M2462

White, K. L., Williams, F., & Greenberg, B. G. (1961). The ecology of medical care. The New England Journal of Medicine, 265(18), 885–892. doi:10.1056/NEJM196111022651805

WHO/WFME. (2004). Accreditation of medical education institutions. Report of a technical meeting. Geneva, Switzerland: WHO-WFME Task Force on Accreditation.

ENDNOTES

- In most modern countries medical practitioners and their associations (e.g., AMA) argue for a low level of public interference with medicine, thus pretending to be free marketeers par excellence. However, a free market within the health professions is always vehemently opposed, e.g. Australian Medical Council, 2008.
- Of course proponents of community health and social perspectives on health (e.g., Sir Michael Marmot and the WHO Commission on Social Determinants of Health he chaired) would present evidence that 'social injustice is killing on a grand scale' (e.g., Berkman & Sivaramakrishnan, 2008) and that only teaching in areas such as represented by DPCI and ELPD could start to contain that pattern.
 - It may be worth noting here that the author of this manuscript ('Ev') was Secretary-General of the Association of Schools of Public Health in the European Region ASPHER, developed the curriculum and taught comprehensively in two Schools of Public Health (in Denmark and The Netherlands), has been a senior consultant to several others (including in El Salvador and Kazakhstan), and in 2008 held a Faculty-wide top SETU score (of 4.9 on a 5 point scale) for quality of teaching in a unit

'International Perspectives on Health Policy and Planning'. Adjectives such as "convoluted, boring, meaningless and annoying" seem inconsistent with this track record.

It is at the very least intriguing to see that clinical loading parameters for other Australian Medical Schools are easily reviewed at their respective Human Resources internet sites, but that information on these matters is absent from public Deakin policies. It may be the case the Deakin University is lagging in appropriate governance arrangements, as much as it is in respect of governance issues in relation to the pharmaceutical industry (Mason & Tattersall, 2011).

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