

Teacher Im/material: Academic teaching and the new pedagogics of instructional design

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Abstract

The authors critique the increasingly technologized teaching and learning environment of higher education. They argue that fresh pedagogical understandings are needed to inform thinking about instructional design. While the imperative to use communication technologies to increase learner access is laudable, the question of 'access to what' should also be addressed in all its complexity. Disparate terrains of new literature about teaching and learning, technology and corporeality can bring fresh perspectives to bear on the nature of pedagogical work. However such literatures are rarely brought together. In this paper the authors work across aspects of learning theory, critical theory and post-structuralism to explore the question 'access to what'. In so doing they raise important questions about the embodied nature of teaching and learning, and the potential of both 'embodied' and 'disembodied' teaching to produce and counter marginalization. The argument is that all decisions about the appropriateness of particular pedagogical practices must engage with such questions.

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As we enter the new millennium, educational researchers and teachers are being hailed to a powerful vision of 'life-long' student learning made possible by new technologies and the related forms of instructional design they enable (Morrison, 1995). Somewhat ironically for traditionalists, this literature often frames the teacher's material presence in the learning context as an *impediment* to learning, a stumbling block in the path of access to information, facilitated by new forms of communication technology. At the same time as the material is being displaced by the digital, an emerging area of educational scholarship cautions us to re/member what bodies contribute to pedagogical work (McWilliam, 1995, 1996; Shapiro, 1994). Indeed, we have been told that inquiry into human capability as *embodied* is one of the most precious new concepts of social theory in postmodern times (Eagleton, 1990).

The status of the teacher at all levels of education is already seriously weakened by the prevailing climate of client-centred educational provision, the seductions of the Internet, and the idea of self-managed learning, however this might be understood or interpreted (Newson, 1994; Talbott, 1995). Furthermore, teachers generally do not have the means to redress this weakness that other sorts of power might make possible (McWilliam, 1995). In psychoanalytic terms, we have increasingly been unable to "occupy the symbolic position of subject supposed to know" (Deutscher, 1994, p.40). We have not yet begun to understand what differences new forms of delivery are making to pedagogy itself.

Because information technology is a terrain of academic endeavour quite separate from the work in cultural studies and new sociologies which focuses on theorizing the body, imperatives coming from these disparate literatures are rarely if ever brought together. However, as work that is currently mobilizing many academics in education and related disciplines, they signal jointly that the material presence of the teacher, as both the *site* and *sight* of pedagogical authority (Angel, 1994, p.63), is ripe for interrogation. Are teachers becoming the ‘no/bodies’ of pedagogical work? What might be gained or lost in this process?

For better and for worse, the embodied teacher is no longer considered indispensable to learning in higher education. At the very least, we are witnessing in the burgeoning academic work on ‘open learning’ a preference for substituting the term ‘delivery’ for teaching, and/or the substitution of ‘instructional designer’ for ‘teacher’. The following excerpt from a recent article on ‘open learning’ is a case in point:

Currently much attention is being paid to the *pedagogical* issues related to the delivery of telematics-based distance education, *such as the context within which learning takes place and the role that the course and learning environment design has in encouraging effective learning...*the principle issues are now becoming those of the organisation and management of these virtual learning environments so that effective learning, and course delivery, can take place. (our italics) (Jennings, 1995, p.30)

What is significant about this description of pedagogy is that teaching is never a part of it. In this quote, ‘teaching’ has been displaced as part of the normal binary system of talking about educational practice ie, teaching-and-learning. This displacement has been made possible through the bifurcation of teaching into ‘design and delivery’. In turn, both design and delivery are held to be the outcomes of particular organizational and management processes and strategies. The stress here is on constructing a more efficient loop from academic manager to instructional designer to ‘deliverer’ to learner, and (feed)back to academic manager. The embodied teacher is unnecessary to this process.

Promotional material being used to push new learning technologies has celebrated the vision of the de-peopled or virtual campus in ways which are deeply troubling to many academics (Newson, 1994; Taylor, 1996, 1997). Traditionally, the work of the academic teacher has required the presence of fleshly bodies to lecture and tutor at certain times and at certain venues on a ‘real’ campus. In blurring the spatial and temporal boundaries of pedagogical work, the stand-alone academic ‘package’ and World-Wide Web based interactivity represent a real threat to the job security of the academic-as- teacher. Their pedagogical skills as on-campus workers can quickly be rendered redundant. ‘Virtual’ university offerings require quite different sorts of skills from those who are employed to support learning (eg, Thach & Murphy, 1995).

While academics see a threat inherent in such developments¹, little has been done to mount cogent pedagogical arguments to counter such moves. The claim that a ‘human face’ is essential to an effective learning environment is just as romantic and unconvincing as the

¹ We note that by the move at the University of Maine to create a ‘video campus without teachers or buildings’ where students ‘would no longer need to attend lectures, but could tune into their chosen subjects on TV screens either from home or other campuses, and then “interact” with a teacher hundreds of kilometres away’ was reported in the press as having ‘prompted outrage’ among academics in the USA (The Australian, 19/4/95: 26).

romance which has been built around high technology as the universal educational panacea. Whatever arguments might be mounted in favour of the former and against the latter, neither techno-paranoia nor nostalgia for '(g)olden times' will suffice. It is time to consider carefully what difference a teacher's material body can make. This means pushing beyond simplistic notions of the human need for 'social interaction' on a 'real' campus, by coming to grips with some fundamental epistemological concerns about corporeality, knowing and pedagogy.

In the following discussion, we will consider the importance of the issue of *access* as the dominant rationale for the shift to new 'disembodied' teaching technologies. We will then trace the way in which psychological and social analyses of education frame marginality in relation to teaching and learning. Finally, we will consider what new theories of the body add to pedagogical thinking about marginalization.

Access, open learning and the disappearing teacher:

There are many references to the issue of *access* in the instructional design and open learning literature. Rarely is the meaning of access made explicit. Nevertheless, there is a commonly held view that access refers to participation, and that therefore any discussion of access is a discussion of the move from an elite to a mass higher education system (Smith, Scott and Mackay, 1993). Discussion is focused on increasing the participation of marginalized students - ie, "non-traditional students...mature age and part-time students, those from disadvantaged and/or ethnic backgrounds, and, in some course areas, women" (p.319). Others focus more specifically on the issue of geographical location as the compelling imperative. Latchem and Pritchard (1994) for example, in discussing the establishment of the Open Learning Agency of Australia, speak of access in terms of "the use of modern communication technologies and innovative means to complement and expand the reach of traditional print-based communication and education" (p.18), that is, to provide opportunities for participation at remote sites. Irrespective of the particular interpretation given to the term *access*, these discussions tend to locate access as an issue of entry - to have access is to have the right and opportunity to gain entry to higher education as a formal system for credentialing learning.

However, some have argued that advocacy of access needs to push beyond entry to question what it is that is being accessed (Taylor, 1997). Access is always access *to* something. An example of the value of asking 'access to *what*?' can be seen in the work of Milone and Salpeter (1996), who, in focusing on computers in American schools, extended the issue of access to ask *how* computers were being used differently by students (p.40). They found several promising trends, including an increasing use of computers to support "higher order activities" in low socio-economic communities, *and* that these communities were just as likely to have exemplary computer-using teachers in their schools as any other community. However, not all researchers who look beyond entry are as sanguine about their findings. Judi Walker (1994), for example, in researching the impact of open learning on people with disabilities, identified the inaccessibility of support/advice services, library research facilities and isolation from academic support as major barriers for her respondents once they had entered the academy. Clearly access in the sense of 'right of entry' is a necessary but not sufficient condition to achieve equity in terms of learning outcomes.

In the open learning literature there is also a notion that *access* tends to be focused on the delivery *of* something - with the implicit assumption that information can and should be seen as a

object - tangible and portable. In the virtual classroom all is digital, and most textual. The assumption that pedagogy works 'mind-to-mind', produces a silence about the informers and the knowers in terms of "the language of the body, the world we carry on weight-bearing joints, the world we hear in sudden hums and giggles" (Grumet, 1988, p.xv). Certainly there is no space for considering the possibility of a *corporeal* dimension to knowing, not information beyond what can be digitalised. That access might need to include, at times, access to the literal body of the teacher and that this, in turn, might have particular importance for particular learners, remains unaddressed.

Universities should work to promote the entry of those marginalized by issues of gender, ethnicity, culture, class, age, disability or geography. In terms of these issues, new technologies have much to offer. For example, the explicitness that these new communication technologies demand can make visible and therefore unacceptable much of the prejudice and stereotyping which is still pervasive in more traditional course materials and academic discourses. What is being ignored is the potential to create new categories of marginality or to re-work and thereby exacerbate old ones.

Teacher-based pedagogy as marginalizing practice

There is now quite an extensive literature within the psychology and sociology of education that documents the ways that educational institutions have failed to provide a nation's citizens with access to shared cultural knowledge has been with us for some time. The idea that the citizen should, as the *learner*, be the centre of the pedagogical process, or that the *citizen-as-learner* should be inclusive of an entire spectrum of class, race, gender, age and disability is nevertheless a relatively recent historical development. The importance of privileging learning over teaching is a legacy of the concerns of the predecessors of contemporary educational psychology --Rogers, Maslow, Kelly, Erickson, Piaget and others -- that 'pedagogical' studies were too teacher-focused. Education was fundamentally ignorant about what learners themselves brought to the educational experience.

'I taught them but they did not learn' continued to be recognised as a central dilemma of educational practice. It was the perspective of the learner, not prescriptions of good teaching practice, that demanded elaboration. This position has also been adopted in more recent work conducted within the framework of phenomenography (see Marton, 1981), which has resulted in the elaboration of students' approaches to learning, most often represented in the distinction between *deep* and *surface* approaches (Ramsden, 1992).

However, discussions of the learner's perspective and of good teaching practices have been brought together in the conceptual frameworks associated with constructivism. These frameworks address issues of the epistemological understandings underlying the (cognitive) activities of learners (Prawat and Floden, 1994), continuing the focus on the knowledge that learners bring to the educational experience. Constructivist perspectives also involve quite specific elaborations of the pedagogical implications of those understandings, exemplified by Martin Simon's (1995) work in developing a model of teacher decision-making with respect to the teaching of mathematics. Other constructivist work has a decidedly social, rather than individualist, perspective. For example, Stella Vosniadou (1996) has called for a new conception of the mind 'not as an individual information processor, but as a biological, developing system

that exists equally well within the individual brain and in the tools, artifacts, and symbolic systems used to facilitate social and cultural interaction' (p.95). Thus the boundaries of educational psychology are also moving.

Critical educational sociologists have also worked to reconceive notions of the individual learner as a separate entity and teachers as purveyors of neutral knowledge. They have denounced teacher-centred and euro-centric pedagogy as practices which render learners already made vulnerable by the politico-social realities of capitalist societies more vulnerable still. Their framing of issues of access is therefore quite different in many respects from that of educational psychologists and instructional designers. For example, where educational psychologists speak of 'teaching and learning', critical sociologists are more likely to opt for the term 'pedagogy' as more inclusive of the totality of classroom events as cultural and social productions. Since the publication of Michael Young's *Knowledge and Control* (1971), the 'new sociology' of education has expressed a preference for the term *critical pedagogy*, with 'critical' being more closely aligned with conceptions of critical thinking which derive from Jurgen Habermas's analysis of the power relations of capitalism than with John Dewey's understanding of the term. Critical pedagogy has insisted on the moral and political dimensions of education, drawing attention to the link between marginalisation in pedagogical work and minoritarian issues as a broader social politics.

While sharing this critical agenda, a number of feminists have argued the need to address the lived experience of both students *and* teachers in a way that an earlier radical sociology, with its macro political agendas, tended to overlook. For example, in *Bitter Milk: Women and Teaching* (1988), an inquiry into the pedagogical roles played by women in the last two centuries, Madeleine Grumet documents the challenge of reclaiming "the work of women" by transforming a pedagogical role which has been stigmatised as "women's work" (p.58). Grumet points to contradictions in the ways in which women teachers have enacted pedagogical work in modern schooling culture. At the same time, feminists have drawn attention to the power relationships which exist within traditional classrooms, by drawing attention to abusive pedagogy in all its forms, including sexual harassment, and its effects on the at-risk learner. They highlight the fact that abusive pedagogy still occurs all too frequently in educational settings, with very negative consequences for learners already marginalized by their social identity (see Culley and Portuges, 1985).

Other pedagogical analyses have been less insistent in their analyses of 'the truth' about education and access. In recent writing, there has been a retreat from the somewhat evangelical tone which has characterised much of the alternative or *avant garde* writing in the 1980s. With poststructuralism's insistence that "all Holy Wars require casualties and infidels, all utopias come wrapped in barbed wire" (Hebdige, 1988, p.196), calls to liberation in the classroom have been themselves made problematic. A more sceptical *post-critical* turn in critical pedagogy is evidenced in a new generation of feminist analyses (Gore, 1993; Lather, 1991; McWilliam, 1994).

Critical and poststructural thinking about pedagogy have come together in postcolonial scholarship to produce some very interesting analyses of the way that bodies play a role in the marginalisation of learners. We learn from postcolonial scholars that Western schooling has privileged the written text over oral and performative texts within a larger economy of communication. In this way local texts which are more likely to depend on the physical presence of the communicator become reduced to an alter/native (and inferior) discursive and inscriptive

economy. With writing hierarchically placed over and above utterance or bodily enactment, the printed page of literature is privileged as the prime site of knowledge production. Postcolonial writers note the importance of literary education in ‘the progressive rarefication of the rapacious, exploitative and ruthless actor of history into the reflective subject of literature’ (Viswanathan, cited in Ashcroft, Griffiths & Tiffin, 1995, p.425). Viswanathan shares with other postcolonial writers a concern to show how techniques of teaching such as requiring the recitation of set pieces of poetry, prose and drama reinforce such textual representations, and thus provide an effective mode of moral, political and spiritual inculcation. Recitation allows the written text as the ‘tongue’ of the colonizer to enter the body of the colonized. In reciting literary texts, the colonial subject speaks as if s/he were the imperial speaker/master rather than the subjectified colonial.

Clearly the privileging of print technologies over oral transmission has *done something* to change power relationships in learning communities. Uttering words in the material presence of the teacher *does something* to re/form the identity of learner and teacher. And there are political consequences which go beyond the boundaries of classroom practice. Material access of teacher to student allowed a particular sort of re-inscription of the colonized body as an educational subject. At the same time, particular embodied cultural traditions (eg, story-telling, dance) have been de-legitimated as an effect of technological progress. Given that these are some of the *corpor-realities* of education to date, how might new disembodied pedagogical events be producing new positive and repressive effects in terms of how they work as systems of cultural exchange?

Re-thinking access to the teacher’s body

Whether scholars come to blame Descartes or Rousseau for the prevalence of a mind/body dualisms in Western scholarship, the fact remains that, in the history of Western thought, a mind/body dichotomy has privileged the mind as that which defines human ‘being’, while the *corpus* has been interrogated as the excess baggage of human capability. This is an epistemology that works across the entire spectrum of the educational disciplines, from cognitive science to radical sociology.

This standpoint about human capability is an outcome of an understanding of the body as a ‘fixed system of muscle, bone, nerves and organs’ which transcends history and culture, and thus is ‘amenable to scientific examination...a site of established fact’ (Kirk, 1993, p.3). Until relatively recently, such an understanding went unchallenged as bio-medical and academic orthodoxy. Thus research which purports to focus on bodies in educational settings tends to speak of ‘body language’ rather than wrestle with thornier issues of ‘carnal knowledge’.

For more than a decade, however, a project of re-covering the importance of the body as a field of political and cultural activity has been under way (Grosz, 1994; Leder, 1990; Shilling, 1993). This project does not reject the body as the bio-medical *korper* out of hand, but distinguishes this from the idea of the body as *leib*, a ‘lived body’ by drawing attention to *corporeality* or *embodiment* as a generative principle (Leder, 1990, p.5). ‘Body’ becomes integral to a learner’s constituted subjectivity, a social and cultural production as well as an object of external gaze. This literature argues that the body is emphatically *not* merely a presence.

The teacher's body, therefore, is neither simply innocent nor simply profane in pedagogical work (McWilliam, 1996). It should therefore not be celebrated as the source of pedagogical inspiration nor dismissed as an increasingly unnecessary and even unwelcome piece of the pedagogical furniture. We know from the increased surveillance of teachers through many policy initiatives in recent years that the teacher's body is no thoroughly benign maternal, nurturing entity -- good reason, some may argue, to move to its eradication. We therefore want to take a careful look at the role bodies play in understanding what it means to know things, how utterance differs from printed notes, how pleasure in learning and the desire to know (and to teach) are differently performed as textual images or embodied engagements.

Any teacher who takes part in pedagogical events is forced to confront the limits of her/his own anatomical body as well as her disciplinary 'bodies' of knowledge. Roland Barthes (1978) points to this as a difficulty for many academics:

I can do everything with my language but not with my body. What I hide by my language, my body utters. I can deliberately mould my message, not my voice. It is by my voice, whatever it says, that another will recognize that 'something is wrong with me' ... My body is a stubborn child, my language is a very civilized adult. (p.45)

This in itself may be good reason for instructional designers to by-pass or override the material bodies of academic teachers. Our own experience tells us that there is much more seductiveness in the texts some colleagues produce on the screen or in scholarly articles than is apparent in their physical presence and utterance as they deliver conference papers or mass lectures. Other colleagues tell about being somehow let down when brought face-to-face with an external student whose work they admired but whom they had not seen.

Yet we have also shared with our colleagues the experience of students' saying 'I need to see you', and refusing the idea that e-mail, phone, fax or letter would do. We need to take into account, therefore, that the teacher's body can come to stand for a body of knowledge and that engagement with this body can at times have positive outcomes for learners. Accounts provided in Jill Kerr Conway's anthology of autobiographies, *Written by Herself* (1992) illustrate this point. These accounts of the lives of successful women indicate that an elating and elated teaching body is often the sight/site out of which future scholars are propelled into an on-going scholastic or creative career in a particular disciplinary field. They show that the teacher's performance can be enacted and observed as an encounter with knowing which is profoundly engaging, even erotic. Zora Neale Hurston, for example, writes of her experience at a night school in Baltimore:

There I met a man who was to give me the key to certain things. ..There is no more dynamic teacher anywhere under any skin. He radiates newness and nerve...Something about his face killed the drabness and the discouragement in me...He is not a pretty man, but he has the face of a scholar, not dry and set like, but fire flashes from his deep-set eyes. His high-bridged, but sort of bent nose over his thin-lipped mouth...Caesar or Virgil in tan skin.

That night, he liquefied the immortal brains of Coleridge and let the fountain flow. I do not know whether something in my attitude attracted his attention, or whether what I had done previously made him direct the stream at me. Certainly every time he

lifted his eyes from the page, he looked right into my eyes. It did not make me see him particularly, but it made me see the poem...

But he did something more positive than that. He stopped me after class and complimented me on my work. He never asked me anything about myself but he looked at me and toned his voice in such a way that I felt he knew all about me. (Kerr Conway, 1992, pp.44-45)

There are a number of points that could be made here in relation to the materiality of the pedagogical event. The first is that the student's interest is not an overtly sexual interest, but it is *physical*, a recognition of the teacher as a 'body of knowledge'. Importantly for our exploration of pedagogy and access, the teacher's desire to teach appears to converge with the student's desire to learn, to be instructed, as mutual, embodied self-interest. The teacher did not 'seduce' his student by overtly flattering her, but rather by performing his scholarship with his body ("he has the face of a scholar") and by acknowledging her approximation to his pose, his love of the discipline. Importantly, the student here does not mis/take the teacher's erotic performance as an invitation into a relationship with *him* ("it did not make me see him particularly") but experiences it as a irresistible invitation into the love of poetry.

Of course, such manifestations of a teacher's desire to instruct and a student's desire to be instructed are always ambiguous, at times threatening to collapse into a very overt sexual politics. However, we also know too that the World Wide Web has its own problematic sexual politics -- the *virtual* space cannot be relied upon to be a more *virtuous* space.

Utterance, too, can be a very seductive part of a teacher's material classroom presence. The pleasure of classification and order is strongly identified with the utterance of such a teaching body by another of the women writers in the Kerr Conway anthology, Mary Floy Washburn:

Professor LeRoy Cooley taught Chemistry and Physics in crystal-clear lectures: his favourite word was 'accurate' which he pronounced 'ackerate', and I have loved, though by no means always attained 'ackeracy' ever since. Particularly delightful was quantitative analysis, with the excitement of adding up the percentages of the different ingredients in the hope that their sum might approach one hundred...(pp.132-133)

The kinds of pleasure teachers may take in their work is, of course, a sticking point for feminists and other critical writers who point to the fact that this pleasure is all too often at the expense of the student-as-prey. For psychoanalytic feminists, there is concern that the teacher's exhilaration may result in "a spectacular missing by each of the other" as the teacher as ego-ideal appropriates and effaces the student as Other (Deutscher, 1994, p.37). As a psychoanalytic feminist, Penelope Deutscher argues for an ethics of mediation in this "love-of-teaching-self". While she acknowledges "the elating sensation of a physical carnation of one's body as teacher...the overt pleasure produced by the possibility of one's own performance as empowered subject of knowledge, the seductive effect of instantaneity between teaching and learning body" (p.36), she also, appropriately, points to the need to interrupt many such seductions on ethical grounds.

There are other ways of understanding how the teacher's body can work on behalf of

marginalized social groups. A case in point is the ‘*exploration of the difference that difference makes for the complex dynamics of pedagogy*’ (Simon, 1995, p.92, his italics) that Roger Simon provides in his article, *Face to Face with Alterity: postmodern Jewish identity and the eros of pedagogy*. Simon considers the way in which “teaching as a Jew” focuses his attention on how the performative invocation of his own embodied identity is both valuable and troubling as an enactment of a politics of difference (p.93). He notes the importance of the “feudal-like economy” of the university as the frame for a pedagogy “in which symbolic and material capital are dispensed, and filiation and fidelity returned” (p.96). Importantly, as he goes on to say, such structures are not lived in abstract but are experienced as palpable:

Embodied differently in relation to factors such as age, gender, sexuality, or racialization, these structures are manifest in such recognizable forms as sexual desire, respect, affection, deep admiration, projection of parental or progenitive figures, and the sublation of institutional hierarchy in the quest for personal intimacy. (p.96)

Simon argues that the face-to-face encounter matters inasmuch as it allows the display of how he performs with his body and utterance a Jewish identity with the purpose of rupturing those totalizing categories like ‘Jew’ which produce the effects of marginalization (p.102).

This is not to argue that only face-to-face encounters can produce truly subversive pedagogical effects on behalf of marginalized groups, or even that they are the *best* means of doing so. Patrick Palmer’s *Queer Theory, homosexual teaching bodies, and an infecting pedagogy* (1996) proceeds from a similar marginal politics, but his enactment of a subversive pedagogy on behalf of homosexual bodies involves technology that *removes* the teacher’s material body from the pedagogical event. He considers how insisting on the homosexual teaching body, as a viral transmitter within the virtual realities of cyberspace, can open up spaces of radical pedagogical possibility. He pushes “the essentialist and homophobic notion of homosexual = infection = virus = ?” to serve the cause of “an effective and infective pedagogy” (p.87). Palmer states his purpose thus:

Using the metaphor, and the literalness, of the infectious homosexual body allows us to locate a body that is conscious of its own manufacture..By insisting on the need for a corporeal pedagogy for emergent orders in tertiary teaching, I hope to stimulate educators to look for more flexible and disparate pedagogies for open learning. (p.87)

This type of work draws heavily on new theorizing of technology and the body being provided by feminist and gay and lesbian writers who “look...for the trickster figures [in science and technology] that might turn a stacked deck into a potential set of wild cards for refiguring possible worlds” (Haraway, 1991, p.4).

However, as Zoe Sofia (1993) points out, it is important to do more in analyses of technologies and their applications to pedagogy than to track “progress”. It is necessary also to track “regress”, to seek to understand forms of technology such as computer technology in a broad context of technological formations and non-technological “causes” (pp.1-2). Like Haraway, Sofia commits herself to exploring the irrational dimensions of information systems, to fingering the lived contradictions of a high-tech information age by concentrating not on boundaries (eg, nature or artifice) but on the importance of the blurring of such distinctions (p.10). She argues:

[O]ur pleasurable and seemingly life-enhancing technologies can also have nasty histories and devastating side effects; the 'greater good' of the life force may be served by criticism that bears this in mind, even as it is open to the possibilities for enjoyment technologies afford. (p.4)

Implications for instructional design

Clearly access is not merely a matter of more technology or higher technology, but of getting the pedagogical rationale *right* in the light of more compelling theories of the body and of technology. This is unlikely to happen in a techno-culture which celebrates high technology as *the* solution to matters of student access, narrowly understood as entry and cost-effective packaging and delivery of information. The principal shapers of this emergent techno-culture for university teaching have themselves found rewards in a particular pedagogical environment - delivered primarily through the computer screen. Thus the site/sight of satisfaction of their education desires has been characterised by digital rather than corporeal communication. It is not that this should be seen as a deficient pedagogical model, but simply that it militates against other forms of knowledge production. Of course, this is not to suggest that these individuals would not acknowledge the fact that the performing arts, for example, demand embodied teaching. Rather, our point is that there are pedagogical judgements to be made in a host of disciplines that need more than either-or logic about digitality or corporeality. While information is conflated with knowledge, and while minds are divorced from bodies as the site of knowing, we should remain sceptical about the capacity of a techno-culture to make the sorts of pedagogical judgements which maximise access and minimise marginalization.

And this will not happen when the epistemological frame assumes that the teacher's body is simply im/material to issues of access. Rather than declaring the disappearing teacher as a necessary stage in the move to increasing access, we would be better served by examining the state of impoverishment of the pedagogical principles that underlie such simplistic thinking. Then perhaps we can start bringing new thinking tools to bear on learner marginalization, and this will include new thinking about how the teacher's body *matters*.

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