Pedagogical Pragmatism: A New Critical Approach to the Development of Resources for Learning

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ABSTRACT

In this paper we put forward three inventories of good design practice. We then overlay these with a model, which we call pedagogical pragmatism, that uses a metaphor of the body: stance, face and posture, to articulate the principles we believe need to be attended to by a designer for learning. In respect of stance, the designer must first attend to the channel of communication then the relationships between the people involved before dealing with the content or subject of the course. In respect of face, the designer should address their own beliefs about learning because it is with these beliefs that learning relationships will be negotiated. Finally in respect of posture the designer will be aware not only of the recipients of the design, i.e. the putative, "ideal" learner, but also of an array of referees, or stakeholders, which might include funding bodies, quality assurance regimes and indeed the designers own colleagues. We then illustrate this model with a discussion of a new course development project: "Dealing with Drugs: Policy, Prevention and Practice." This is a hard case which foregrounds each dimension of the model.

INTRODUCTION: DESIGNING FOR LEARNING

In this paper we treat learning as an act that can be designed for and propose an approach to the act of designing for learning which is here called pedagogical pragmatism. Hard cases prove the point; we then discuss this approach in the context of the design and development of a multi-modal course, "Dealing with Drugs: Policy, Prevention and Practice."

In naming this approach, we use the term pragmatism not for its conventional or common-sense connotations of muddling through, compromising and making do with the world as it is, but for its connotations in the field of linguistics of effecting an appropriate (if not necessarily intended) response to an act of communication, that is an act with the intention of making a change in the world: making the world a bit more how it could be. Stephen Levinson puts forward a definition of pragmatics that captures its productive force in respect of learning:

> Pragmatics is the study of the relation between the structure of a semiotic system (notably language) and its usage in context... Within the theory of meaning, pragmatics is especially concerned with implicit meaning, with inference and the unsaid, and the way in which language structure trades on this background of the presumed and the inferred. Pragmatics ... has also become an area of interdisciplinary concern, with fundamental contributions from philosophy of language, linguistics, psychology and the sociology of language.

Our aim is first to set out a few principles, which if followed might help lead to pretty good design. Principles that you could lay over your practice to provide a perspective on the design of resources for learning. In doing this, we turn many currently accepted beliefs about learning and teaching on their heads; we start with the designer not the student, we address the "channel" for communication before the topic or learning objective, and we argue that the "ideal learner of the topic" is not the only audience for whom the design will be intended, that is to say referee design is as important as recipient design. We take an explicitly designer-centred approach rather than a conventional student-centred approach but argue that such an approach in fact allows: 1) access to the authentic experience of designers of resources for learning, 2) admits that deep learning is always intrinsically motivated, and 3) conceives that all learners are ultimately designers of their own resources for learning.

Design is, as Wenger (1998, p. 228) puts it, the "systematic, planned and reflexive colonization of time and space in service to an undertaking". The undertaking, here, in the service of which we are colonising time (mine, yours, the printers', etc.) and space (a few cubic nanometres of oxide on a disk, a few cubic centimetres of paper, a few desks and chairs in various rooms or seats on trains and 'planes) is the design of resources for learning. Wenger (1998, p.229) further asserts that "learning cannot be designed, it can only be designed for." In designing for learning we presume (perhaps naively) that the designer has the intention to facilitate rather than frustrate learning. Pragmatically, we find that much of the facilitation and the frustration of learning arises not from the "content" or "subject area" but from the act or acts of communication by and through which learning is intended. This facilitation of frustration can readily be expressed in value terms: high quality designs facilitate learning; low quality designs frustrate learning. Taking such a pragmatic approach, we develop a model of design for learning that is elaborated using a metaphor of the body in relation to others. In designing for learning we take an **orientation**, assume a **stance** and acquire a **posture**. Our aim is that this approach might help expose "inference and the unsaid", problematise the "presumed and inferred" and strive for a critical openness to multiple disciplinary approaches or epistemologies.

Before elaborating our approach, we set out the field by briefly saying what we mean by "resources for learning", who "designers" of such resources might be and finally who are "learners".

By a resource for learning, quite simply, we mean, "resources explicitly designed *for* the facilitation of learning". In taking this broad definition, we are aware of the great importance currently being given to learning objects, shared content objects, interoperability, granularity, aggregation, disaggregation and so on. However, if we take the IEEE (2002) definition of learning object from the recently approved Standard (IEEE P1484.12) for Information Technology ― Education and Training Systems ― Learning Objects and Metadata, we can see that a broad understanding sits comfortably within the definition:

> Learning Objects are defined here as *any entity, digital or non-digital*, which can be used, re-used or referenced during technology supported learning. Examples of technology supported learning include computer-based training systems, interactive learning environments, intelligent computer-aided instruction systems, distance learning systems, and collaborative learning environments. Examples of Learning Objects include multimedia content, instructional content, learning objectives, instructional software and software tools, *and persons, organizations, or events referenced during technology supported learning* [our emphases].

We are concerned with the design of resources with the specific intention of facilitating learning. The IEEE LOM definition embraces "any entity ... which can be used, re-used or referenced," regardless of whether it was designed for the purpose. We argue that the appropriation of an object, that is: using, re-using or referencing it, is an act of design whereby the object be it a stonechat or a chat room, is transformed into a resource for learning. The person doing the appropriation is a designer — has designs on the object — and is, therefore, a learner.

By "designers of resources for learning", it should be clear, we take a broad view, embracing traditional classroom practitioners: teachers, lecturers, teaching assistants of all sorts, as well as Learning Technologists in their many guises. The Association for Learning Technology (ALT) describes learning technologists as:

> ... a distinctive set of people, capable of bringing together a body of theory joining knowledge of information *and other technologies* with a sound basis in modern educational theory. The body of knowledge ― the fruit of research and practice ― is based on principles of learning theory, instructional design and change management but is grounded in a good understanding of the underlying technologies and their capabilities. ... Learning technology makes use of a broad range of communication and information technologies to support learning and provide learning resources [our emphasis, again] (ALT, 2003).

By learners we mean people who appropriate resources as a means of mediating the practice of learning. They may be the people "for whom intended..." but not always. We do not, in fact, acknowledge a clear distinction between the category of designer of resources for learning and "learner", although it is sometimes practical to do so for reasons of employment and for other discursive relations, as we will see when we look at the question of posture. Whether striking a recipient-design pose or a referee-design pose, the designer borrows an identity, and to a certain extent is assumed by that identity. That is the designer appropriates the resource as a means of mediating their practice and the learner designs for learning. We do not want to encourage solopsism in teachers, but in a real sense these principles assert that in the act of designing, the learning experience belongs to the designer, and designing for learning produces learning designers; reciprocity is an important component of good educational practice.

To be clear, the appropriation of a "learning object" (IEEE, 2002): using, re-using or referencing it, is an act of design whereby the object is transformed into a resource for learning. The person doing the appropriation is therefore a designer and also, crucially, therefore a learner. Where much of learning and teaching practice has been socially constructed as individual activity, a (coincidental) collocation of individuals lecturer and learners, learning technology analyses learning and teaching functions and reconstructs them as collective, socially situated activities. Not withstanding professional associations and trades unions, employment practices and conventions of society, we understand, here, that learning is an active process of change that occurs within and among people and systems. We recognise that the use of the term "learning" as a substantive object or modifier (as in "to deliver learning", or "learning programme", or "learning technology") is problematic and depends first on the discursive context of many broad arguments such as the education v. training debate where "learning" may be used to mediate between positions, and second on the use of language in marketing and promotion of commodities such as textbooks, software packages and courses. An emergent feature in the design of resources for learning is the course team.

INVENTORIES OF GOOD PRACTICE

As Mehrotra et al. (2001, p. 29) and many others (cf Kember & Murphy pp. 15-16) have observed, "... learning theories and principles that have been found successful in the traditional classroom remain constant regardless of the delivery mechanism." There are a number of respected short inventories of good practice: indicators of high value. Graham et al (2001) provide seven principles of effective teaching. Effective teaching:

- encourages student-tutor contact,
- encourages student-student co-operation,
- encourages active learning,
- gives prompt feedback,
- emphasises time on task,
- has and communicates high expectations,
- respects diverse talents and ways of learning.

From Brookfield (2001) and Jones (1999) we can derive the maxims that:

- good learning relationships are based on reciprocity, authenticity and credibility

And, that in order to develop deep understanding, high quality learning and teaching:

- sets ground rules
- provides alternative modes of participation
- exemplifies models of engagement
- gives access to the experience of the instructor.

Good design practice is not, of course, particular to any one field. The design field itself offers particularly useful inventories. We can readily translate from urban design manuals (e.g. Bentley et al. 1985) the principles that environments, including learning environments, should provide:

- permeability (multiple pathways)
- variety (multiple learning and teaching styles and preferences)
- legibility (multiple literacies, modes and systems of meaning)
- robustness (fault tolerance and redundancy)
- visual appropriateness
- richness (complexity and depth of coverage)
- personalisation.

We, of course, argue that high quality learning relationships are independent of the mode or locus of engagement: face-to-face, distance, blended or computer mediated. However we accept that the evidence for this is yet slight (Conole and Dyke, forthcoming). While recognising that much of what the designer wishes to achieve could be done in traditional modes without the use of new technologies, there nevertheless do appear to be e-learning affordances that are novel: unique features that are of this age, that emerge from today's nascent

learning technologies and might transform our knowledge and understanding. Claude Levi Strauss (1978) spoke of a new epistemology of collage, montage and bricolage; Marshall McLuhan (1989) spoke of the medium being the message; Zygmunt Bauman (2002, p. 27 and passim) speaks of a new liquid modernity. e-Learning may afford increased or widened access to education through the flexibility offered in respect of time of study, location of study and sequencing. e-Learning may afford more rapid change in institutions and individuals through increased access to information, communication, reflection and collaboration. e-Learning may afford new understandings or the creation of new meanings through its inherent interdisciplinarity, multi-modality and non-linearity. e-Learning may afford new learning relationships through virtual reality, adaptive and location aware technologies and the ability to selectively and reflexively mask the self.

PEDAGOGICAL PRAGMATISM: THREE DIMENSIONS TO THE PRACTICE OF DESIGN FOR LEARNING

The designer's practice is situated in a heteroglossic nexus (Scollon, 2001) comprising all prior experience, discourse, sites of engagement: real & virtual, mediational means, domains of knowledge, and artifacts of learning technology. Design for learning is as interpersonal and interdiscursive as any act. Through design the designer is constructed in a context of people. We present here three dimensions to the practice of design for learning:

- presentation or "Stance"

- orientation or "Face"

- evaluation or "Posture"

Taken together these dimensions may be considered a model of pedagogical pragmatism. They represent guidelines for the designer of online resources for learning as well as for the online learning tutor/practitioner. We believe these guidelines provide an approach towards realising the good practice signalled in the inventories cited above. We believe, also, that, like the inventories of good practice above, these guidelines are valid regardless of the mode of engagement: distance, face-to-face or "blended"; individual, small group or large class; seminar, tutorial or lecture. The dimension of presentation derives from Scollon's (1998) "maxims of **stance**". **Face** is the dimension of belief, tradition or position: this is how you see the world and the world sees you: how you establish relationships and negotiate positions. **Posture**, finally, takes into account the stakeholders in the discourses into which the resource (Learning Object) is launched. From this examination a model of pedagogical pragmatism emerges that is grounded in critical discourse theory. Such a model enables us first to ask and then, maybe, to answer the question, "What is the value in what we do?". Such a model also provides a means of measuring compromises or deviation from a position: because of economic necessity, professional competition, or a liberal sensitivity that admits relativity to value systems. But how far to go? Should we as learning technologists regard all our work as "subversive activity", or should we be, like barristers, guns for hire regardless of the purpose of the project? Pedagogical pragmatism models the space within which such decisions are made.

Presentation or "Stance"

Presentation adheres to the "maxims of stance" (Scollon, 1998). For discourse to proceed the designer frames awareness sequentially and hiearchically in respect first of the **channel** or situation, next in terms of the **relationships** between the people who appropriate the resource as a means of mediating the practice of learning (*including* the designer), and only lastly in **terms** of the topic, theme or ostensible subject.

The first question regarding channel must be, does it run in that environment? If it doesn't, don't waste time with the rest. What is the minimum technical spec for reasonable interoperability, how is accessability negotiated? Do not start designing resources for learning until there is one.

The technical spec will in turn be supported by the relationship. How fault-tolerant are your target learners? What help is provided at the technical, pastoral and topic levels? How do you get to know the learners? Is appropriate security assured? Have ethical issues been considered? Do learners need to know one another in order to work together? What are the teaching and learning styles that the learning object might be called upon to support? Is it suitable for all? Must it be? The topic might make an appearance as the negotiation of the relationship is conducted, but it can only be pursued as if it were the sole objective if the relationship is secured, however temporarily.

We do not address the question of topic here. Discipline areas and communities of practice have their own repertoires, traditions and epistemologies to discover, to construct, to reproduce and on which to draw.

Orientation or "Face"
The repertoires of the discipline areas will be negotiated from certain positions. Position taking is an important feature of any social act. The dimension of "face" consolidates positions into four traditions:

- positivism
- the social perspective
- tacit communitarianism
- post-theoretical or new critical.

Positivism
Positivism is the "traditional" empirical-idealist view, which holds that reality is objectively "out there". Positivists aim to construct value-free laws using the inductive method arguing from the observation of phenomena to the creation of theories (the specific to the general) in order subsequently to explain other phenomena through deductive reasoning (general to specific), rules and procedures. Human beings are postulated as rational, predictable individuals who can be led by logic and interest to discover and acknowledge the truth. Positivism is the dominant orientation of the mathematically-based, applied sciences and contends for dominance in many branches of the social sciences: psychology, economics, linguistics. Objective-led behaviourist pedagogies of external motivations such as enquiry-based learning, physical simulation and experiment are predominant. There is "truth" and it might be discovered.

Social perspective
The countervailing current orthodoxy is known as the social perspective (Goodman, 2003). From this orientation, knowledge is emergent rather than given or discoverable, it arises from social practice and is constructed. There is variation in what is known and how it is known and this variation is context-dependent. The social perspective is grounded in critical theory with many approaches: feminist, Marxist, post-colonialist, critical discourse analysis and it emphasises the conflicting interests of social groups. The social perspective is the dominant orientation of applied social sciences and literary studies. It is becoming increasingly influential across many disciplines. Resources for larning, i.e. learning objects support exploratory learning, constructivist pedagogies and analysis. From this perspective all "truths" are relative.

Tacit communitarianism
The third orientation is called, here, tacit communitarianism. Bauman (2002, pp 84 ff) equates communitarianism with tribalism and asserts that, "A disturbingly thin and easy to efface line separates the lofty vision of a communitarian bliss from the practice of ethnic cleansing and ghettoization." Tacit communitarianism is the commonsense pedagogy of normalisation which adopts forms from both the social perspective and positivism in order to reproduce a culture through its many tacit codes. The aim of designing for learning from this orientation may be to create (tractable) "people like us". Tacit comunitarianism is the dominant orientation of the corporate and management training sectors. Knowledge engineering, and computational approaches such as organisational learning, expert and intelligent systems characterise tacit communitarianism. From this perspective, the "truth" will be forged with a common identity.

Post-theory or the new critical approach
Finally the post-theoretical or new critical approach acknowledges the cognitive disconnect in much learning and teaching practice. As in tacit communitarianism, teachers might assert constructivist credentials yet use extrinsic motivators. Learners assert their desire for student-centred programmes, yet ask, "is it on the exam?" Pedagogical pragmatism places the learner and the designer in contested social space illuminated by critical theory but grounded in survival. If tacit communitarianism is the position of early, industrial "solid" modernity, the new critical approach might be that of late, post-industrial, "liquid" modernity. The new critical approach acknowledges conflicts, epistemological, virtual and real: social class, gender, theoretical orientation, global economic/energy flows and balances. Project and problem-based learning, applied and action research characterise the new critical approach. The "truth" is that we strive for understanding.

Evaluation or "Posture"
Posture, finally, takes into account the stakeholders in the discourses into which the resource is launched. Learning objects will be evaluated in a trilateral relationship in which referees validate, witness, participate in and influence the design process. Posture describes the learning objects in a context with learners

Recipient design is a body of practice that presumes an audience and designs for whom intended: an idealised representative of that audience. Manuals for the design of resources for learning often exhort the designer to enact the role of the idealised learner, to advocate for the learner and to interpret for them. Recipient design stresses learner centrisim and presupposes a two way relationship between the "consumer" of design outputs and the designer. Referee-design designs always addresses a third party, a sometime intermediary and sometime disintermediating force: a validating authority; a repository, content management system, VLE or portal; a project funding body, policy makers, notional embodyment of society at large, or merely a conventional sense of what is permissable.

DEALING WITH DRUGS: HARD CASES —PEDAGOGICAL PRAGMATISM IN PRACTICE

It is the extreme cases that prove the point. In order to design resources for a course on the topic of drugs (Huggins, 2003), that is to design for learning about drugs, the designer is immediately confronted with a huge variety of discourses, including those of individual and/or professional identity, normalcy, pathology, ideologies of liberation and repression, authority, power (including gender and sexuality), belief (religious faith) and received wisdom. The course has arisen through a perceived need to ensure that as wide a range of professionals who might come into contact with substance users during the course of their everyday work have a more formal and structured knowledge and awareness of the social, personal, health and legal implications of drug use (substance misuse or self-medication) for the user, for the user's associates, friends, family and for the wider society. This course is aimed at a heterogeneous learner population including, among others, the police, teachers, service providers, Youth Offending Teams, Youth Workers and so on, who might need or benefit from a more formal qualification(DPAS, 2003). Such individuals might have a personal history of prior use, they might be enthusiastic advocates of personal development and change or their employment may sinmply bring them into contact with a target or vulnerable group. Whatever, such individuals have limited formal awareness or knowledge of the specific health, social, cultural or legal consequences of substance use or of the pathways into and through treatment and support.. The target learner population has a wide range of prior educational experience, achievement and ability. As well as this target learner population there are multiple referees and stakeholders: the Home Office, the local police authority, the DfES, (ex) users, local networks (Drugs and Alcohol Action Teams - DAT, the Drugs Prevention Advisory Service - DPAS, Crime and Disorder Reduction Partnerships, Youth Offending Teams, Primary Care Trusts, LEA etc), the local university quality assurance regime, local e-learning delivery networks, global standards and specifications, colleagues and the designer's own self. It has been determined that the course must be made up of reasonably small components that can be studied separately and independently, but that these components must be able to be aggregated and incorporated into a formal qualification. The course must allow for flexibility in delivery and study mode.

Applying a model of pedagogical pragmatism to the development of this course might help to ensure high quality learning and teaching, provide alternative modes of participation, exemplify models of engagement and give access to the experience of the instructor(s) in order to develop understanding through learning relationships based on reciprocity, authenticity and credibility. While a designer might more easily assume a recipient design posture with respect to, say, Maths 101, with this course the designer is strikingly confronted tacitly and explicitly with a panoply of referees. One's own orientation must be confronted.

The certificate programme is built up from a number of elements. The primary building block is the 5 credit point (50 hour) block (mini-module). However if we apply the principles of pedagogical pragmatism, we must consider the **stance** of the course: the chanels of communication and the relationships which will be embodied within it before we address maters of content. In this respect, at the course scheme level, the course puts greater emphasis on process than on content. More than half the course credit will be devoted to study skills, a personal development portfolio and a project.

What becomes immediately apparent is that the course will be developed by a large team. This team will represent most of the course stakeholders and will exemplify most, if not all the categories of anticipated course participants. With respect to **posture**, the course design team will function as referees and may also advocate for the recipients. They will, also be working to various external bodies: the Home Office, Police Authority. The referee structure will be complex.

In attending to the channels of communication, it has been determined that the course must be able to be delivered with a high degree of flexibility in order to ensure the widest possible participation. To facilitate this a virtual learning environment (VLE) will be used. This will be the Brookes Virtual platform built on WebCT. In part to enforce the development of an authentic experience in the course team of learning in a VLE, many of who won't be professional academics or learning technologists, but practitioners in the wider community, it has

been decided that at least some course development meetings and discussions should be undertaken online using the Brookes Virtual environment. A course development site has been set up for this purpose which will be evolved into the course site. Staff development training will be offered to the course team, and subsequently the participants, which will blend web-based CBT, online discussion based computer mediated conferencing and face-to-face tutorials and workshops. The course development project will very closely parallel the learning experience to the participants.

It is also proposed that the course development team will be called upon to facilitate discussion both online and face to face. The process of developing relationships within the course team will be similar to the process through which relationships will be developed in the instantiations of of the course. As most if not all of the course team will fall into the broad pool of those for whom the course is intended, we propose that the course team pilot the course processes: develop a portfolio and treat the course as a project. It is anticipated that, after validation, the course development team will be able, retrospectively to submit their portfolios and course development contributions for credit towards their own Certificate in Dealing with Drugs. The designers will be learners.

In respect of the posture the course strikes, there will be no denying that some referees might have differing views about the role of substance (mis)use in society, and there will be no denying that the course will need to stay to one side of officially sanctioned lines, if only in respect to current legislation. These positions will need to be negotiated amongst the course team, and these positions will need to be negotiated among the course participants. The negotiations will inevitably involve questions of what here we have called **face**: beliefs about learning, knowledge, legitimacy, power, and authority. We have to acknowledge our position. We are taking a new critical approach, but we cannot expect this approach to be taken be the whole team. We anticipate the course will show, at times and in places, all four faces we have set out above. We may discover others.

Through taking this approach we hope to allow access to the authentic experience of designers of resources for learning, to admit that deep learning is always intrinsically motivated, and to acknowledge that we are all learners, who are ultimately designers of our own resources for learning. The discourses of learning and the discourses of the world of substance abuse are entwined in a nexus of practice where much is inferred and unsaid, where many relationships are presumed and where multiple professions, approaches and beliefs contend. The development of this course will not be easy, but through a pedagogically pragmatic approach we hope to expose inference and the unsaid, problematise the presumed and inferred and strive for a critical openness to multiple epistemologies.

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