

Arcs, braids and webs: Exploring constructed narratives in a web-based distance education unit

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Different media tell their tales in different ways. Interactive educational sites on the World Wide Web combine some of the linearity of text with the dialogical nature of a conversation. In such an unfamiliar context, metaphors and narratives tend to be used by both the students and tutors in the unit to make sense of their learning experiences. Such narratives are to some extent imposed by the constraints and potentials of the medium, and to some extent by the values and choices of the web developer, but they are also co-constructed throughout the unit by the interactions and negotiations of the tutors and students. I wish to explore, using several different metaphors, my own narrative intentions as the unit developer, and the intersections and renegotiations of that narrative with those co-constructed with my co-tutor and with the students. I will suggest that the most useful unit of analysis and evaluation for such a project is not the learning of the individual, nor even a dyadic relationship (although these are an important part of the unit), but the story - recognising always that stories are constructed rather than found.

Introduction

It is interesting to reflect upon my attitude to the reading I did at the beginning of this semester. I thought it all seemed too abstract and theoretical to be of any practical use to an experienced teacher, however looking back, I now see this was a way of setting the scene for the whole unit. It opened up my mind to the idea that the metaphors we use to help us understand curriculum colour the way we think and consequently influence our approach and attitude to curriculum development. This was a new and very powerful idea for me, one of several that I will take with me from this unit and attempt to apply to my work as a teacher. (Comment from a student assignment in SMEC 612)

I have chosen to begin this brief discussion of the interwoven narratives of experience (Geelan, 1998) that surrounded and comprised a web-based distance education unit with this quote from Annette's (all student names used in this paper are pseudonyms) final, summatively reflective assignment in the unit because she has captured so succinctly the 'narrative arc' that I intended students to follow in the unit. But if this paper is to have a recognisable narrative arc, I need to give you some background on the unit.

SMEC 612: Curricula in Science, Mathematics and Technology Education is part of the Master of Science (Science Education) degree offered by Curtin's Science and Mathematics Education Centre. It is offered in both on-campus and distance-education modes, and is a compulsory unit in the Masters degree program. Students in the course are generally practising teachers of science, mathematics or technology, and their teaching contexts range from universities and tertiary colleges, through public and private secondary schools to primary school classrooms.

I tutored distance education students in the unit in 1996, then extensively re-wrote the 'paper and mail' distance education materials in 1997. As part of that process - almost a byproduct of my emerging interest in web site development and HTML - I took a couple of hours and some templates I'd produced for another on-line unit and put a version of SMEC 612 on the World Wide Web. That electronic version of the unit was successfully offered to students in second semester 1997, but the kinds of rich, educationally communicative interactions we had envisaged for the Discussion Room just never really got off the ground. I spent a lot of time talking about this challenge to Peter Taylor, with whom I had also been involved in teaching the unit SMEC 501 on the Web (with similar results), and together we developed an approach for heavily revising the unit in the interest of promoting more high level discussion between

students. The revised unit was taught in Semester Two 1998.

An official unit story

One facet of the 'content' of the web unit - the one in which the 'official story' of the unit appears most explicitly - is the seven 'Activities' that make up the bulk of the web site. Each of these involves some readings, either from relevant curricular and other literature or of texts written by students in last year's edition of the unit, some writing in a private learning journal and a half page piece of writing to be presented publicly in the Discussion Room. A brief summary of the seven activities, presented in order, suggests the path that I hoped students would follow: from exploring their own images of curriculum (and, not incidentally, exploring the notion that such things are open for exploration and challenge), to exploring related literature as a framework, to considering the most pressing curricular issue most of them will be facing in their schools. Students would then be given the opportunity to problematise some of the situational and societal constraints that they had always considered non-negotiable, hone their skills in thoughtful, critical writing, and finally bring it all back home into the context of their teaching lives.

1. Images of Curriculum I - Asks students to describe and elaborate a metaphor they use when thinking about curriculum.
2. Images of Curriculum II - Explores metaphors and images from the curriculum literature.
3. The Outcomes Metaphor - Explores the 'curriculum as intended learning outcomes' metaphor.
4. Your Curricular History - Asks students to reflect on their own experiences as learners and the curricula under which they have learnt and taught.
5. Constraints and Freedoms - Allows students to explore how the curriculum in their classroom would be different in the absence of one major constraint.
6. Critical Reflective Thinking - Encourages students to critically discuss and analyse a piece of student-written text from an earlier iteration of the unit, with a view to challenging the students' own perspectives.
7. Where to From Here? - Invites students to thoughtfully consider how their learning in this unit - ideas, perspectives, skills and the explication of their values - might be applied in their classrooms in the short to medium term.

The 'official tale' of this unit has developed out of two other media: Peter's and my face-to-face teaching and the written 'paper and mail' version of the unit. Our initial intention was to try to do many more of the things we value about classroom teaching - interactivity, flexibility, communication at a more personal level - and to beat some of the constraints we perceived in our distance teaching - student isolation, lack of interaction, loneliness and long turnaround times for feedback and communication. The electronic medium allows us to do many of those things, but imposes new constraints of its own. The one against which we came up most strongly (painfully!) was the immediacy and ease of use of the Discussion Room and e-mail, combined with the relative impoverishment of nonverbal cues and contextual material that they possess. This led, and continues to lead, to miscommunication, arguments and offences that were never the intention of the writer, but arise from the interaction of the reader and the text. This will continue to be a challenge, and the temptation to seek purely technical fixes - like on-line video conferencing - is great, but the old-fashioned telephone also seems to have a crucial role to play in smoothing these particular waters!

Some unofficial stories

I had realised - and worried - that the learning path described above might seem impractical and irrelevant to practising classroom teachers, who would tend to be looking for practical things they could implement immediately in their teaching practice. I felt that this was to some extent unavoidable in a practical sense: with the range of students, contexts and interests in the unit it would be extremely difficult to give concrete advice that was relevant to all. More importantly, though, Peter and I both felt that what changes what teachers do in the classrooms most fundamentally is what changes the teachers themselves: critical reflection on their educational and personal values and the 'metaphors they live by' (Lakoff & Johnson, 1980). The half-expected dissatisfaction did emerge - Stan wrote in the Discussion Room:

I must admit that, as someone who enrolled in this course to improve myself as an educator, I am feeling some

frustration at having to discuss the semantics of images of curriculum and at the same time wondering how this will improve my teaching. I can see some value in this process but it does seem to be a long path that we're being led down and I guess I'd like to see some drinking water at the end of it. Am I getting thirsty too soon?

The comment from Annette with which I began this paper was enormously reassuring to read at the end of the semester, and was mirrored with varying degrees of strength by most other students. A survey which was conducted at the end of the semester similarly showed high rankings from most students for the professional relevance of the unit: something I strongly suspect would not have occurred earlier in the semester. This is a case where the tutor could see the 'big picture' that made the various activities meaningful, but that perspective only became available to the students at the end - a little like the refiguring of all that has gone before that occurs at the denouement of a good suspense novel.

One student told, lived, created an entirely unofficial story, and rejected the official story almost completely - but I'll leave her tale for my co-conspirators to tell...

Metaphorically speaking

In spite of my rhetoric about valuing flexibility, complexity and non-linearity, in writing and developing the unit I did have a fairly linear, time-based approach in mind to what I hoped would be the learning experiences of students in the unit. I referred to this, to myself as I wrote and later in reflective discussions with Peter, as the 'narrative arc' of the unit. Since completing my doctoral thesis, which focussed on narratives of lived experience (Geelan, 1998), I have found myself increasingly using the metaphor of 'story' or 'narrative' for thinking about my teaching activities. As Lakoff and Johnson (1980) have suggested, metaphors are pervasive and inescapable: what we can do most powerfully to improve our practices is to make our choice of metaphors explicit for ourselves, and perhaps use multiple images to enrich our understanding of teaching contexts. Peter Taylor's paper in this session addresses the issue of 'multiple metaphors of mind' - something closely related to the perspective I am describing.

I have used that metaphor of the 'narrative arc' of the unit to explore the 'official story' that Peter and I intended to share in our roles as authors and teachers in the unit, and also to look at some of the 'unofficial stories' told and lived by the students and tutors during the course of the semester. Now I want to subvert that metaphor for a moment, by considering some other possible ways of imagining the unit.

In the initial development of the web sites for our on-line units we very much had the metaphor of a physical school in our minds. We even went so far as to draw a diagram on the whiteboard during a meeting, which explored the metaphorical links between the on-line and on-campus classrooms. We saw the Activities as the actual classroom, the Discussion Room as a sort of cafe/meeting place for discussion of school and home, and the Notice Board as... well, a notice board! That physical metaphor for the site seems to have gone by the board in our thinking about the unit - we now seem to address the web site pretty much on its own terms, since we've become more familiar with it.

It's intriguing to think about - and one day we'll explore more formally - the similar and different metaphors or images our students might use in thinking about both the electronic/physical artifact of the web site and the more ephemeral but no less real pattern of their own learning in the unit. Certainly there remain multiple representations of the unit within the unit itself: on the Unit Outline page it variously appears as a web-like site map and as a linear list of topics (the 'narrative arc' discussed above). In research team meetings I have also used the metaphor of the various official and unofficial stories woven by the students and tutors entwining themselves together to form a braid - one which hopefully lies in the general direction intended by the hairdresser, but is prone to blow about in the wind, and swing toward the side with the heavier hair!

Andrew Stapleton's paper discusses the vexed question of 'units of analysis': when attempting to conduct disciplined inquiry into something as complex and multi-faceted as SMEC 612, an analytic 'way in' must be chosen. Andrew thoughtfully explores a number of alternatives - analysis through looking at the learning of individual students, dyadic tutor-student, student-students and tutor-tutor relationships, the interactions of study groups or the evolution of themes and concepts through 'threads' in the Discussion Room. That process was upset by the actions of one student, who shattered all the neat categories with her comet-like (Armageddon-asteroid like?!) passage through the unit. I'd like to

suggest that the power and beauty of braids and webs and arcs - and the richness and complexity of human lives and learning - require the most powerful and flexible unit of analysis we have: the narrative. Narratives are fictional or 'factual' selections from events which have been humanly constructed for human purposes - in this instance for thoughtful inquiry into the lived experiences (Van Manen, 1990) of the teacher/learners and learner/teachers in this unit. By telling stories to one another - and now to you - we share not just the events and intentions that comprise the surface of the unit but, more importantly, the meanings we make of them, and the understandings we are in the process of constructing together.

Stories still to be told

Peter and I have been teaching together in a variety of contexts, in both on-campus and distance education modes, for the past four years. We're both enjoying that process, and feel that we're improving what we do as educators by our thoughtful attention (Van Manen, 1991) to our practices and the beliefs and values that underlie them. This is very explicit for us: we haven't chosen to use this technology (my fingers keep typing 'teachnology' - my subconscious seems to be sending me a coined word for this concept!) because it's cool or sexy, or because we like spending time playing with computers (although I do), but because it serves our developing educational values and aspirations for our teaching. Teaching together, and thinking about our teaching - telling tales of lived experience to our students, ourselves and one another - is something we value highly, and will continue to want to do over the coming years. In the course of the current semester we've made dozens of mental notes (and even a few that made it to paper) for how we'll re-write the SMEC 612 unit before the next time it's taught, so as to further reduce some of the constraints we've identified, and to further build our values into our practices. That means there are many more tales yet to be written, lived and told...and that's exciting!

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