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Book Review – Control and Constraint in E-Learning: Choosing when to choose

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I have been waiting for a couple of years now for a work that successfully ties together the emerging social software/ Web 2.0 scene with established theory and practice of distance education. Unfortunately, I did not write it myself. Jon Dron, however, has created the first in what I assume will be a series of writing, research, and experimentation (his and the work of many others) that helps us harness the affordances of social software for formal and informal learning. Social software makes use of the emerging Semantic Web and Web 2.0 technologies to enhance learning provided through a ubiquitously connected lifelong learning population, an abundance of learning content, and judicious use of agents to make it easy.

In a nutshell, *Control and Constraint in E-Learning: Choosing when to choose* explores how to move beyond distance education's roots as independent study, through the tight cohorts of students moving lockstep through teacher orchestrated activities, to a context in which "many learners, loosely joined" can have the freedom and choice to co-create their own learning. This is a tall order, but one that is very much coming to a computer near you!

Dron begins the book with a look backwards at the theoretical balances between structure, control, power, and 'transactional distance' (note that Moore, Saba, Garrison, Boyer, Pask, Gorsky, Candy, and numerous others have talked abut 'transactional distance'). He concludes (like other scholars) that many of these concepts are fuzzy, hard to validate empirically, and often misunderstood by both readers and authors. He then moves onto something most of us like, and understand – namely having control over choices that affect us – reverberating with the near universal desire for freedom and democracy. Though acknowledging that sometimes students cannot handle, or desire, too much choice, lifelong learning demands that students participate in the experience of learning, if they are to recreate that experience on their own in subsequent experiences. He concludes that control and constraints induced by context, content, and scale shape both formal and informal learning. Since education is about change, Dron then uses these notions of transactional control to map a series of learning trajectories that are changed by active control of the learner, the instructor, or changes in their context of their learning environment.

Having set the theory, Dron then maps "transactional control" onto Net activities, including searching for the 'good stuff,' asynchronous threaded discussion, Learning Management System (LMS) use, and text chat. I liked the application chapters, but the detail of analysis of

asynchronous and text chat became a bit tedious for my tastes; the point made was that the conversation or activity is constantly changing in response to the exercise of control by learners or teachers. I also would have preferred analysis of voice chat as opposed to text, since I rarely use text chat and never in formal classes – but perhaps that is just because I am too old! Dron then plays with the idea of transactional control to resolve some thorny e-learning issues, such as distinguishing the optimal granularity of a learning object. He argues that, "the smallest learning object should be the one that embodies an atomic transactional choice" (p. 135).

Personally, the book got most interesting when Dron began expanding the six forms of interaction (learner-teacher; learner-content; learner-learner; teacher-content; teacher-teacher; and content-content). I had assumed that I had covered all possible combinations of the three main actors when I discussed these in 2003. But alas, Dron complicates the context, by noting that the network or group itself is a learning resource and potentially powerful learning aide as exemplified in blogs, Wikis, referral services, collaborative help systems, and the myriad other forms of Web 2.0 and social software applications. These actors are much less formal, transient, and in many cases, subject to happenstance, yet as the Net matures the possibilities and rewards of interacting with human and content resources outside of the formal learning context increases.

The book ends with a series of design principals for social software. These principles draw from a rather disparate group of theories and principles. Three are extracted directly from general evolutionary theory (Richard Dawkins is no doubt delighted!) the ***Principle of Adaptability*** and the ***Principle of Evolvability***, then more specifically deals with behaviours and techniques of successful species or emergent organizations, such as insects' ability to organize effectively with relatively low brainpower using the ***Principle of Stigmergy***, to allow attainment of objectives impossible by individual or class-sized cooperation. The ***Principle of Trust*** relates directly to the human relationship, community, and sense of common cause that arise through use of high quality learning networks. These activities flourish if emergent networks can form appropriate sized social structures using the ***Principle of Parcellation*** to create the small within the large. To make sense of the ecological complexity of emergent educational social context, education design architects help us construct patterns ***Principle of Constraint*** (think Christopher Alexander's *Pattern Language*). Of course, acknowledgement of the underlying ***Principle of Context*** dictates that learning must be customizable by the large disbursed groups spread across space and time, but that they will also be highly connected – ***Principle of Connectivity*** through today's communications backbone of the Net.

To my knowledge, these are the first attempts at extracting underlying design principles or patterns for educational social software. Dron next applies the principles to a few existing and emerging case studies and speculates about the future of e-learning noting the plight of teachers who cannot 'get with' this new learning agenda.

In the tradition of the critical reviewer, I offer four minor complaints. In the first chapter, I was flattered to see a nice long quote that I had published in 2003. Unfortunately, the bibliography referenced another group of scholars led by another Anderson. I do not usually quibble about minor typos and citation errors – unless they concern me personally! Second, I wish Dron had picked-up on Morten Paulsen's work of 1993 where he defined his Theory of Cooperative Freedom, in which he foresaw many of the affordances of social software in allowing transactional choice over time, pace, place, access, curriculum, media, and 'relationship,' which I later added to the list. Transactional choice is a very broad category, and noting all its dimensions helps us plan and not default to particular familiar defaults. Third, I find the title quite confusing – at quick browse in a bookstore (online or F2F) I might confuse it with Luddite harangue in the

style of David Noble or a guide to retaining teacher control with unruly cyber-kids, but I would not likely think it was a book about social software. Finally, I wish *Control and Constraint in E-learning* was more accessible. Open access publishing would be an appropriate goal for a book like this, as it would result in tens or even hundreds of thousands more readers. At least publication in soft cover has reduce its price from a lofty $110.66 Canadian (OK, so the postage is free!), or e-Book at $70.87, does make it a bit more affordable.

In summary, Jon Dron has made a major contribution to our understanding of learning in the networked era. This book will likely do what writing by Alex Romiszowski in the 1980s, and Tony Bates did for scholars and distance education practitioners in the 90s. I doubt if it will be the final work exploring "many learners loosely joined" but it makes a first and major contribution.

Reference

Dron, J. (2007). *Control and Constraint in E-Learning: Choosing When to Choose.* Hershey, PA.: Information Science Pub.

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