

# Paragogical Praxis

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December 31, 2011

**Abstract:** This paper considers the problem of peer producing rich on-line learning environments, a task that appears techno-socially feasible, but is not without challenge. We draw on the self-professedly “utopian” approach developed by Baudrillard in “The Mirror of Production”, to establish and understand our two key dimensions of leverage (language and recycling). We then extend a recent paper by Corneli and Danoff on the topic of peer learning with a set of guidelines for practitioners. Our conclusion supports active peer production of learning environments, against a “provisionist” strategy, but we recognize that our paragogical agenda may be at odds with established educational systems in some respects, but perhaps in a complementary manner.

## 1 Introduction

Peer produced education would take the idea of the participatory creation of educational and informational resources (like Wikipedia) and expand them with support for the experiential aspects of learning. Much as Google integrated pages on the the internet into a new kind of light-weight digital library, the most intuitive approach to building a “hyper-textbook” would be to integrate user inputs and interactions into a new kind of mediatedly-social, knowledge rich learning environment.

The paper discusses this problem with the following major ideas in mind:

1. Language is the primary observable phenomenon on the internet.
2. A major problem becomes recycling user (typically student) inputs to turn them into something more immediately useful.
3. Developer-practitioners, who are themselves peer learners, will benefit from some shared understandings about how to develop such systems.

Our basic thesis is that online technology has reached the point where building rich online learning environments is indeed becoming feasible. However, a range of both economic and social challenges come to mind. Could such a resource really be produced by volunteers and given away for free (like Wikipedia)? Or does it come with a built-in or implied business model (like Google)?

More broadly, is peer production of peer learning environments compatible with contemporary society, educational or otherwise? After all, we already have a range of highly-capitalized educational systems in place today. Is learner participation in shaping the learning environment just a utopian ideal?

If so, Richard Barbrook suggests that the internet has developed according to a similar principle: “Rejecting work-as-commodity, left-wing hippies proclaimed a new organizing

principle for their utopian society: waste-as-gift” (BARBROOK, 2007). In thinking further about these issues, Baudrillard’s critique of Marxist ideology in “The Mirror of Production” (BAUDRILLARD, 1975) is highly apposite. We will draw on this book extensively in what follows. The paper will also draw on and expand upon the idea of “paragogy”, our word for the conscious practice of peer learning (CORNELI AND DANOFF, 2011).

## 2 Language and Peer Learning

Language is not produced by certain people and consumed by others; everyone is at the same time a producer and a consumer. In fact, there are neither producers nor consumers and what is established is not the general equivalence of individuals vis-à-vis language, but an immediate reciprocity of exchange through language. – (BAUDRILLARD, 1975, p. 97)

Increasing quantities of the world’s knowledge (but by no means all of it) is moving online. Whether in its online instantiation, or looking back across time, we can imagine “the literature” as a pastoral or industrial landscape, or as a sort of embodied ancillary entity.<sup>1</sup> In the present time, analyzing flows of text and metadata is possible for corporate bodies (Google, Facebook) that have access to a large stream of user data, and this is something that anyone who wants to provide an online service should take into consideration. Here we can say: In the beginning, there was PageRank.<sup>2</sup> We could make use of PageRank-like ideas to study and develop peer learning techniques. For example, we could label people who write about similar concepts as “peers”, and assign them a ranking as “experts” based on how much they have contributed on a given topic. Rankings could be used for prestige or price-signalling, to build teams, or find mentors, tutors, conversation partners, or simply to identify interesting things to read.

At a much simpler prototype level, this could all also be done in a “discretized” way, just by asking participants to self-identify interests and skill level. Thus, people can be “peers” if they have a common interest, or a common (self-identified) skill level related to that interest. Co-learning and working groups could be established with peer learners who will have similar questions about their applied projects, and expert guides who would help with these projects (perhaps for a fee). A current “applied” conversation about these ideas is developing at the Free Technology Academy.<sup>3</sup>

## 3 Recycling

Out of the various conceptions of human ecology that have a bearing on education (BATESON (2000), STAR AND GROESEMER (1989), ENGESTRÖM (2007), etc.), the most relevant to our setting is George McCalla, writing on “The Ecological Approach to the Design of E-Learning Environments: Purpose-based Capture and Use of Information About Learners” (MCCALLA, 2004). “In a phrase, the approach involves attaching models of users to the information they interact with, and then mining these models for patterns that are useful for various purposes.” Insofar as it reuses interaction data that would otherwise be lost, McCalla’s idea is reminiscent of what Slavoj Žižek refers to as total recycling:

It is often said that the ultimate products of capitalism are piles of trash – useless computers, cars, TVs, and VCRs ... : places like the famous “graveyard” of hundreds of abandoned planes in the Mojave desert confront us with the obverse truth of capitalist dynamics, its inert objectal remainder. And it is against this background that one should read the ecological dream-notion of total recycling – in which every remainder is used again – as the ultimate capitalist dream, even if it is couched in the terms of retaining the natural balance on Planet Earth: the dream of the self-propelling circulation of capital which would succeed in leaving behind no material residue – the proof of how capitalism can appropriate ideologies which seem to oppose it. (ŽIŽEK, 2008)

The ideal of ‘recycling’ involves the utopia of a self-enclosed circle in which all waste, all useless remainder, is sublated: nothing gets lost, all trash is re-used. It is at this level that one should make the shift from the circle to the ellipse: already in nature itself, there is no circle of total recycling, there is un-usable waste. (ŽIŽEK, 2011, p. 35)

In this sort of “utopian ideal”, we would speak of an “encyclopedia as complete instruction”, brought into being by bringing to bear all questions and comments in one integrated synoptic, an organized junkyard of all of the qualms and quandries that people encounter when they think – with a spare part available and ready to fit any need.

This is perhaps a motivating vision, but, in addition to the warnings offered by Žižek (there is no total recycling), the first point of critique is that *ἐνκύκλιος παιδεία* doesn’t actually mean “complete instruction”, but rather, “recurrent instruction”. The utopia that is not-here-yet should be met by other very present utopias, e.g. the (admittedly flawed) utopias of current educational – and peer production – communities.

Utopia, for its part, would have nothing to do with the concept of alienation. It regards every man and every society as already totally there, at each social moment, in its symbolic exigency. [...] But this utopian violence does not accumulate; it is lost. It does not try to accumulate itself as does economic value in order to abolish death. It does not grasp for power. (BAUDRILLARD, 1975, pp. 165-166)

Baudrillard’s notion of present utopias of symbolic exchange finds a halcyon day in YouTube (LESSIG, 2011), where artistic ideas build, as artistic ideas (much more than as a mass movement). “Power” may or may not be relevant as a goal or as a reality (the Year of the Linux Desktop, the Arab Spring), but it is not the be all and end all of peer production; indeed some related practices (filesharing, copyright piracy) seem to operate on a neo-primitivist model, specifically to keep power at bay (BARBROOK, 2007).

In any event, we can counter the notion of the still-to-come “complete instruction”, with contemporary, recurrent, real instructional environments, in all their thelemic splendor and/or with warts included. The challenge raised by the idea of peer production for *these* environments is to think less in “provisionist” terms (if we supply the right resources to students, they will do well), and more in terms of how those involved can take up the opportunities that are available to them today (BOUD AND LEE, 2005).

With regard to the question of business models raised in the introduction, education is already marketized: the question should be less about whether to charge for services, and more about how to find and capture positive externalities from service transactions, which would otherwise be pure waste, and transform them into free, viable “waste-as-gift”. Text mining and augmentation (discussed in the previous section) can provide a paradigmatic example.

## 4 Paragogical Praxis

Praxis, a noble activity, is always one of use, as distinct from poesis which designates fabrication. Only the former, which plays and acts, but does not produce, is noble. (BAUDRILLARD, 1975, p. 101)

CORNELI AND MIKROYANNIDIS (2011) recast the ideas from CORNELI AND DANOFF (2011) into a set of recommended design principles to use when creating peer learning environments. Here, we can follow the same basic procedure to establish recommendations for paragogical praxis itself. In other words, we take the “paragogical principles” from CORNELI AND DANOFF (2011) as a set of problems to be solved in practice, and present some conjectural solutions. The principles are:

1. *Changing context as a decentered center.* We interact by changing the space.
2. *Meta-learning as a font of knowledge.* We interact by changing what we know about ourselves.
3. *Peers provide feedback that wouldn't be there otherwise.* We interact by changing our perspective on things.
4. *Learning is distributed and nonlinear.* We interact by changing the way things connect.
5. *Realize the dream if you can, then wake up!* We interact by changing our objectives.

There is a tension between a practical, action-oriented approach to learning and adaptation, and the whimsical, nonlinear, non-coercive modality of peer production. These are our points of advice on how to deal with this tension.

**1. Develop empirical studies and a critical apparatus.** The challenge is to find or create learning environments that we can analyze and critique along various relevant dimensions (“are people learning”, “is the system growing and improving”, etc.). In CORNELI AND PONTI (2012), we begin to establish a critical apparatus of this nature in the concrete case of mathematics learning. More generally, language and metadata are typically what are available for us to study (Section 2).

**2. Find companions for the journey.** Not all peer learning experiences are created equal, particularly in terms of how deeply interested the participants are in understanding the process itself. Procedural investigations may be pejoratively deemed “navel-gazing” by those who are not interested; SLOTERDIJK (2011) considers non-pejorative variations on the theme, as part of his massive project to understand coexistence, beginning with life in the womb. This project should give rise to a philosophical discourse that we can learn from as participants.

**3. Work with real users.** Some institutions are incorporating trendy networked learning techniques into their pedagogy, and students are generally far ahead of this trend. Students are intensely interested in working systems. On the other hand, proselytizing more staid institutional players will generally result in a clash, when the natural conservatism in extant pedagogical and business models senses something “new and different” in pedagogy. From an economic perspective, it may be less important to convince institutions to do things our way than it is for us to create a new “market” (CHRISTENSEN, 2011).

**4. Study and build nonlinear interfaces.** We need systems that support nonlinearity in writing, reading, and editing. Natural questions like “give me all of the problems in multivariable calculus that don’t yet have solutions” should be easy to get answers to; and new queries should be equally easy to ask. Contemporary technologies like SPARQL, Git, and Etherpad, among others, can be brought to bear, but there will be further design problems to solve. We do not think of these tools in terms of “technological determinism” or even in terms of “provisionism” in the educational context (Section 3), but rather, as part of a workshop or laboratory for open experimentation with nonlinear effects.

**5. Limit philosophizing.** Philosophical talk is not going to solve our practical problems, but we may be better able to understand what the practical problems are through this discussion.

## 5 Conclusion

After forced industrialization and direct exploitation come prolonged education, studies subsidized for twenty-five years, endless personal development, and recycling: everything is apparently destined to multiply and differentiate social productivity. In fact, the system needs this sophistication, this versatility, this truly unlimited personal development, but only for a statistically limited group at a very high social level. (BAUDRILLARD, 1975, p. 132)

We have reviewed the situation pedagogy faces in today’s cultural climate. In Section 2, we saw that language use is typically what we have to go on, from an analytical perspective. Generally, if we are not starting with language, we arrive at it soon enough. Language becomes something to pay attention to, in much the same way in which Buddhist practitioners have for centuries spent time watching their breath.<sup>4</sup>

Then, in Section 3, we took a critical look at the concept of recycling as it applies to the design and construction of learning environments. We came to the conclusion that we should take a very present approach. It is an elegant and intuitive idea to integrate user input into a rich interactive learning environment, but students, and those who care about them, will typically be less moved by a potential future peer production goal than by tangible learning outcomes in the present. This is not to say that recycling is “bad”, but that, if anything, it should be taught and practiced as a creative and immediate art form (the art of remix). Knowledge artifacts and learning environments may indeed be built through such a process, but in order to qualify as pedagogy, they should be built by users, not for them.

In Section 4, we gave our outline of advice for would-be paragogues: (1) Develop empirical studies and a critical apparatus; (2) Find companions for the journey; (3) Work with real users; (4) Study and build nonlinear interfaces; and, (5) Limit philosophizing.

Baudrillard has been one welcome (if somewhat puckish) companion. His notion of an extra-systemic “symbolic configuration of life” may be of little use in present educational models – and indeed it may be quite at odds with many of them – but it may well be at the core of both past and future philosophical questioning. If we spirits have offended, consider this: that paralogy may be at its best not as an alternative to mainstream education, but playing an ancillary role within mainstream education. This will be for future educators and paragogues to decide.

## Notes

<sup>1</sup>“I know all the various arts and crafts and sciences in the world dealing with writing, mathematics and symbols, physiology, rhetoric, physical and mental health, city planning, architecture and construction, mechanics and engineering, divination, agriculture and commerce, conduct and manners, good and bad actions, good and bad principles, what makes for felicity and what for misery, what is necessary for enlightenment, and behavior linking reason and action. I know all these sciences, and I also introduce them and teach them to people, and get people to study and practice them, to master and develop them, using these as means to purify, refine, and broaden people.” – From the Flower Ornament Scripture (Avatamsaka-sutra), translated by Thomas Cleary

<sup>2</sup>The PageRank value for any page  $u$  can be defined as the sum of  $\text{PageRank}(v)/L(v)$  over all pages  $v$  that link to  $u$ , where  $L(v)$  is the number of links from page  $v$ . In practice, PageRank is approximated in an iterative fashion.

<sup>3</sup>A formative survey is here: [HTTP://BIT.LY/TNE01C](http://bit.ly/tne01c)

<sup>4</sup>[HTTP://WWW.ANCIENT-BUDDHIST-TEXTS.NET/TEXTS-AND-TRANSLATIONS/ANAPANASATI/INDEX.HTM](http://www.ancient-buddhist-texts.net/texts-and-translations/anapanasati/index.htm)

## Bibliography

- Barbrook, R. (2007). Cyber-Communism: How the Americans are superseding capitalism in cyberspace. In *Imaginary Futures: From Thinking Machines to the Global Village*. Pluto Press.
- Bateson, G. (2000). *Steps to an ecology of mind*. University of Chicago Press, Chicago, University of Chicago Press ed. edition.
- Baudrillard, J. (1975). *The mirror of production*. Telos Press.
- Boud, D. and Lee, A. (2005). ‘Peer learning’ as pedagogic discourse for research education. *Studies in Higher Education*, 30(5):501–516.
- Christensen, C. M. (2011). *The Innovator’s Dilemma: The Revolutionary Book That Will Change the Way You Do Business*. HarperBusiness, reprint edition.
- Corneli, J. and Danoff, C. J. (2011). Paralogy. In *Proceedings of the 6th Open Knowledge Conference*, Berlin, Germany.

- Corneli, J. and Mikroyannidis, A. (2011). Personalised and Peer-Supported Learning: The Peer-to-Peer Learning Environment (P2PLE). In *Proceedings of the The PLE Conference 2011*. Southampton, UK.
- Corneli, J. and Ponti, M. (2012). Detecting mathematics learning online. In Hodgson, V., Jones, C., de Laat, M., McConnell, D., Ryberg, T., and Sloep, P., editors, *Proceedings of the 8th International Conference on Networked Learning 2012*. (To appear.).
- Engeström, Y. (2007). From communities of practice to mycorrhizae. In Hughes, J., Jewson, N., and Unwin, L., editors, *Communities of Practice: Critical Perspectives*, pages 41–54. London: Routledge.
- Lessig, L. (2011). The Architecture of Access to Scientific Knowledge: Just how badly we have messed this up. Lecture at CERN, Geneva, Switzerland, 18 April 2011.
- McCalla, G. (2004). The ecological approach to the design of e-learning environments: Purpose-based capture and use of information about learners. *Journal of Interactive Media in Education*, 7.
- Sloterdijk, P. (2011). *Bubbles: Spheres Volume I: Microspherology*. Semiotext(e).
- Star, S. L. and Groesemer, J. (1989). Institutional Ecology, Translations, and Coherence: Amateurs and professionals in Berkeley’s Museum of Vertebrate Zoology, 1907-1939. *Social Studies of Science*, 19:387–420.
- Žižek, S. (2008). The prospects of radical politics today. *International Journal of Baudrillard Studies*, 5(1).
- Žižek, S. (2011). *Living in the end times*. Verso Books.