

## **The educational community of inquiry as disruptive pedagogy** (Presentation)

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### **Abstract**

*In this paper, I consider an analogy between Christensen's (1997) disruptive and sustaining technologies and disruptive and sustaining pedagogies. In particular, the educational community of inquiry, of the sort developed through Lipman and Sharp, can be seen through this analogy as a disruptive pedagogy. Via the analogy, sustaining pedagogies are those in which the direction for improvement is along the line of current practice. Disruptive pedagogies are those not so aligned. This alignment can be described in terms of pedagogical values and processes. Pedagogical values are understood as those values that help prioritise action and make decisions in the act of teaching and planning. Processes are those things designed to give consistency of outcomes, and include teacher training and the design of assessment and learning experiences. Processes are generally built to realise pedagogical values. Tension between the community of inquiry pedagogy and existing values and processes can be understood to apply individually and organizationally as a source of disruption. Christensen's analysis of causes of organisational success and failure in the face of disruption provide some useful ways of problematising and therefore strategising the implementation of an education for thinking. What Powell and Snellman (2004) called the 'knowledge economy' is now better described as a 'thinking economy', as it is effective thinkers who will produce new knowledge and frame new paths to growth and sustainability. Resolving the tensions between existing educational models and the disruptive pedagogy of teaching for thinking is an educational imperative this analysis acknowledges and supports.*

### **Introduction**

In this paper, I consider an analogy between disruptive and sustaining technologies and disruptive and sustaining pedagogies. In particular, the educational community of inquiry, of the sort developed through Lipman and Sharp, can be seen through this analogy as a disruptive pedagogy. To make the analogy clear, I will first give a brief overview of the concept of sustaining and disruptive technologies, and of the conditions under which an organisation can successfully adapt, or fail to adapt, to such disruption. I will then develop the analogy through a contrast with sustaining and disruptive pedagogies with particular reference to organisational resources, processes and values. I follow by drawing from the analogy ways of dealing with potential organisational concerns in dealing with disruptive pedagogies. I offer this analogy as the beginning of a discussion, and as a potential means of framing and problematising teaching for thinking, rather than as a definitive methodology.

The idea of disruptive technology—technology with the potential for creative destruction of existing business models—was given form by Christensen (1997).

Christensen contrasted disruptive technologies with sustaining technologies, which it will be useful to define first. Sustaining technologies are those in which current technologies are improved “along the dimensions of performance that mainstream customers in major markets have historically valued” (Christensen, 1997, p. xviii). Examples of sustaining technology in the mobile phone industry, for example, could include things such as longer battery life, faster CPUs, larger screens, higher resolution displays and a greater range of potential software applications. These are things demonstrably connected to improving performance along the lines that customers have grown to expect. Disruptive technologies, on the other hand, are those technologies that do not fit with existing customer expectations (as opposed to currently articulated needs or desires) or with established industry foci. They “bring to a market a very different value proposition than had been available previously” (Christensen, 1997, p. xviii). A useful example of disruption caused by a new technology is the ride sharing application, Uber. Uber’s technology allows drivers and passengers to form a peer network to connect with each other and exchange money for rides through an online platform. Traditional taxi companies do not work on this model, having a centralised booking system to deliver industry-licensed drivers working standard hours to customers in need of transport. These models are mutually exclusive, and the growth of Uber at the expense of traditional taxi companies is the source of disruption to the existing industry, which is incapable of modifying towards, or otherwise accepting, the increasingly popular newer model.

Christensen notes that it is not so much that the technology itself is disruptive in this context, but that old business models based on sustaining technologies that attempt to contain or work with the new technology are the source of tension (C. Christensen, 2001). While it may seem that technologies not aligned with customer or industry expectations are not candidates for success, as the market grows and the technology matures, what was a technology of minor concern disrupts the mainstream and begins to dominate.

Certain educational practices can also be seen as disruptive or sustaining. Sustaining educational practices, like sustaining technologies, attempt to refine existing processes with a view to moving further along an established outcomes path in a way that is commensurate with expectations and existing practice. Traditional, sustaining, pedagogical methods might look to improve student performance on standardised testing, or otherwise meet existing metrics of success through allocating more resources, extending teacher training or working instrumentally towards meeting specific ends. This type of sustaining pedagogy would, by definition, make up the bulk of teacher professional development programs. Disruptive pedagogies, however, like disruptive technologies, will not fit current models and attempts to accommodate them within such models create unsustainable tension. Christensen himself has written on the concept of disruption in education (C. M. Christensen, Horn, & Johnson, 2011), but this treatment has focused on innovations other than the pedagogy of the community of inquiry, many of which including the role of technology to facilitate practices that might be disruptive. My treatment in this

paper is specifically pedagogical, and specifically the pedagogy of the community of inquiry.

Educational disruption may be born of the need for alternative methods of teacher training and re-training, for timetabling of non-traditional class structures, for resource allocation requirements that do not work with established administrative processes, for learning outcomes that do not match those set for standardised testing, and for difficulties in reporting on student performance in other than age-group levels, for example. The educational community of inquiry has the hallmarks of such potential disruption.

Christensen's analysis of disruptive technologies provides a framework for discussing potential organisational success or failure, and it is interesting to see if this framework is applicable for disruptive pedagogies such as that underlying the community of inquiry, and, if so, to see what implications may exist for educational institutions. Rather than move between the terms *technology* and *pedagogy*, I will use the term *practice* to explore the analogy, using disruptive and sustaining practice as an inclusive term, reverting to the former terms when necessary. Similarly, rather than talk of *companies* and *schools*, I will talk of *organisations*. I do not assume equivalence, only similarity.

### **Resources, processes and values**

According to Christensen, understanding organisational success or failure is a function of three broad categories—resources, processes and values—and how these contribute to build capability. I will consider how these factors could be used to understand why the community of inquiry pedagogy might be disruptive to schools, and to ultimately seek a solution in these terms. I will suggest some factors as they might apply and then discuss their nature and problematic aspects in developing the necessary capacity to implement a community of inquiry pedagogy.

Resources are, for the most part, the materials and people that an organisation has on hand to apply to the completion of a task. They “are usually *things*, or *assets*—they can be hired and fired, bought and sold, depreciated or enhanced.” (Christensen, 1997, p. 186). While this is a very broad category across all businesses, in the case of schools, and in the specific task of building an educational community of inquiry, the key resource would seem to be the people who are employed as teachers and administrators (there may be an argument that students and parents are also resources, but I will leave that unexamined for the moment). Teachers have the pedagogical knowledge needed to develop thinking skills in students, and administrators have the capacity to organise processes and prioritise factors that allow teachers to do so.

Processes are those things that allow tasks to be accomplished using the available resources. They are “patterns of interaction, coordination, communication, and decision-making” that translate goals into results (Christensen, 1997, p. 187). Christensen notes that while processes define what an organisation can do, they also define quite clearly what it cannot do.

Processes that have developed over time in an organisation are often efficient because of their specificity and the organic nature of their development, having evolved over time to deliver specific outcomes and having undergone extensive refinement. But while they may be well suited to a particular context, they may fail when applied to another. Schools, being concerned with children and their holistic development, are particularly complex organisations and their processes are legion. I have mentioned some of the processes that may tightly bind a school, including the nature of the timetable and resource allocation; others could include mechanisms of assessment, pedagogical frameworks, teacher professional development and induction, reporting protocols, behaviour management strategies, unit and lesson planning templates, metrics for rewarding teacher performance, grouping of students according to age or ability, programs for gifted and talented or special needs students, and how success is celebrated, to name only a few.

Organisational values “are the criteria by which decisions about priorities are made” (Christensen, 1997, p. 188). As for processes, values should be widely understood and uniformly implemented to develop consistency of performance. Values, or at least lists of them, are ubiquitous in schools. But these are usually associated with ethical and moral principles or go towards character; and so values such as respect, tolerance, fairness, responsibility and striving for excellence are commonplace – and rightly so. In the resources, processes and values framework, however, values take on a more mundane meaning. They are tools of prioritisation and of decision-making. Some companies may value selling fewer items at high profit and others many items at low profit, for example. What a company values informs, presumably, the principles of operation by which they work. A school’s organisational values are those things that inform and shape its processes, including those I mentioned earlier. For example, a teacher may be rewarded based on results of standardised testing, or on increased student engagement, or both. Academic success may be celebrated in preference or equally with sporting performance. Learning spaces may be designed and operated to enhance collaborative learning rather than learning in isolation, and so on. Each of these outcomes is realised through processes informed by values.

New resources can be attained and old ones removed with relative ease, but processes and values are not so easily modified in the face of disruption. In particular

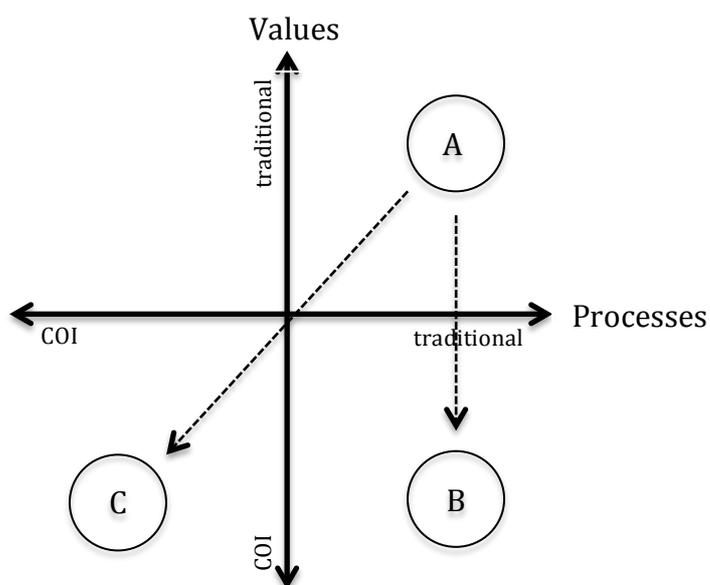
...by their very nature, processes are established so that employees perform recurrent tasks in a consistent way, time after time. To ensure consistency, they are meant *not* to change—or if they must change, to change through tightly controlled procedures. *This means that the very mechanisms through which organizations create value are intrinsically inimical to change* (Christensen, 1997, p. 188).

Disruption occurs when processes and values are misaligned with the potential adoption of new practices. As organisations differ markedly in their values and processes, what is disruptive for one organisation may be sustaining for another.

There are several sources of potential disruption within the community of inquiry pedagogy, characterised by their points of difference with more traditional pedagogical principles. These include that knowledge and meaning are to be collectively and collaboratively established rather than distributed through the teacher, that students work collaboratively rather than competitively, that teachers can be more a source of questions than of answers, that outcomes are measured, as Dewey advocates, by the potential for further education rather than for instrumental ends, and, perhaps most definitively, that the community of inquiry is an education in thinking rather than simply an education in knowledge acquisition. A significant consequence of this latter point, and a source of further disruption, is that assessing thinking is far more problematic on large-scale tests than is testing for recall of declarative or procedural knowledge. School values that optimise success for disruptive pedagogies, at least for the community of inquiry, are those that minimise the importance of standardised testing, preference education for thinking and favour collaborative learning, for example.

### **An analytic framework**

Christensen provides some useful graphical illustrations to better understand the dynamics of disruptive and sustaining technologies. I have synthesized some of the information to produce a graphical display to inform the adoption of potentially disruptive pedagogies within a school. On the graph, I have used the terms 'traditional' and 'community of inquiry' for the terms 'sustaining' and 'disruptive' respectively. This is modeled on a school that has traditional values and processes and that might wish to consider the community of inquiry pedagogy as a means of developing better thinking in its students.



The vertical axis presents the range of values that are aligned with community of inquiry (disruptive) pedagogy and traditional (sustaining) pedagogy. The

horizontal axis presents the domain of processes aligned with community of inquiry pedagogies and traditional pedagogies. The zones A, B and C represent school states. Zone A represents a school that has traditional values and processes. Zone B represents a school with traditional processes but values aligned with otherwise potentially disruptive community of inquiry pedagogy. Zone C is one in which schools values and processes are well aligned with community of inquiry pedagogy—and for this zone, the community of inquiry pedagogy is no longer disruptive.

In the transition from A to C, schools may move both processes and values towards the pedagogy of the community of inquiry, moving more directly through the plane, or they may first move from A towards B, changing values as a precursor to changing processes (a final move to C). Christensen uses Wheelwright and Clark's concept of 'heavyweight teams' to describe how some staff in an organisation can lead the way to modifying values and processes (Christensen, 1997, p. 201). These teams are tasked with the redevelopment of values and processes to enable a transition to, or accommodation of, disruption. The creation of these teams is itself a change in process, a change in which new boundaries are drawn around groups of team members to create new groups with capabilities that are different from the capabilities of previous groups. In this way organisational capacity is developed. Christensen points out that organisational capacity does not automatically match individual capacity. This new demarcation is done with the goal of creating organisational capability that matches individual capability and allows it to flourish.

When managers tackle an innovation problem, they instinctively work to assign capable people to the job. But once they've found the right people, too many managers then assume that the organization in which they'll work will also be capable of succeeding at the task. And that is dangerous—because organizations have capabilities that exist independently of the people who work within them (Christensen, 1997, p. 16).

Working with teams whose makeup is directed towards sustaining practice can lead to circumstances in which “projects are categorized by endless debates, grudging compromises, and little change” (C. M. Christensen et al., 2011, p. 218).”

While analogising between types of organisations delivers some potential for action, it is worthwhile to consider how the resources, processes and values (RPV) framework might be applied to the individual teacher. Resources available to an individual teacher might include their knowledge and understanding of content and pedagogy, and the range of affective dispositions they may bring to their classroom and to their interaction with students. Values could be understood as those things that inform their pedagogical decisions. Processes could include such things as habits of practice, routines of classroom administration and those processes taught to students to ensure consistence of educational outcomes. There seems nothing about individual teacher practice that would be incompatible with the RPV approach in terms of understanding barriers to and opportunities for change, with perhaps some exceptions such as

creating heavyweight groups. The dynamic of individual and organisational RPV sets may inform one another, as well as speak to the potential for matching individual and organisational capacity overall. Either way, it would seem as important to break with the analogy here and to consider the individual as much as the organisation when dealing with an educational institute, and certainly so for the autonomy of decision making required for teachers involved in an education for thinking.

### **Seeking disruption**

Sustaining technology is, by its nature, perpetually on the radar of leaders while disruptive technology fails to meet established metrics for success and is therefore minimised, ignored or not visible at all (Christensen, 2001). Attempts to introduce the community of inquiry pedagogy may be inhibited, for example, by performance demands expressed in the language of the existing pedagogical paradigm (which reflects what organisations currently value). This is not to say that it the community of inquiry pedagogy cannot perform to satisfy existing metrics, but that the causal pathway from practice to outcome is unknown or not made clear. Students who are currently undergoing courses in drilling for performance improvement on standardised tests might be seen by decision-makers to be better served by continuing to do so, rather than shift their pedagogical focus onto unfamiliar and less quantifiable, and therefore potentially less predictable, processes inherent in the community of inquiry—processes which may frustrate decision-makers who “demand crisply quantified information when none exists...” (Christensen, 1997, p. 166). Moreover, the expectations of parents and other concerned groups may only be articulated in ways more clearly related to existing paradigms.

If we can analogise from Christensen’s examples of disruptive technology to the community of inquiry as a disruptive pedagogy, this means that those who promote it are working within a low profile, and we need, therefore, to structure our advocacy with this knowledge and attempt to shift the language to reflect new values and inform new processes. But this is not necessarily problematic. As Christensen pointedly claims in an educational context “...disruption does not take root through a direct attack on the existing system. Instead, it must go around and underneath the system. This is how disruption drives affordability, accessibility, capability and responsiveness” (C. M. Christensen et al., 2011, p. 243). How this is best done is an area worthy of strategic development.

What Powell and Snellman (2004, p. 199) called the ‘knowledge economy’, expressing the view that “the key component of a knowledge economy is a greater reliance on intellectual capabilities than on physical inputs” is now better described as a ‘thinking economy’, as it is effective thinkers who will produce new knowledge and frame new paths to growth and sustainability. Resolving the tensions between existing educational models and the disruptive pedagogy of teaching for thinking is an educational imperative this analysis acknowledges and supports.

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