

Performing Blended Learning as a Product and a Service

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Abstract

Blended and networked learning discourses tend to focus on relations among learners, tutor/professor/teachers, peers, and material learning resources. While in higher educational contexts there is logic to this discursive practice, the roles of non-educator and technological actants in blended learning networks are often neglected or relegated to marginal positions. Non-educators' contributions to commercial assemblages of blended learning networks can be perceived as out-sider performances, in which values are more aligned to neo-liberal, managerial practices. The roles of technological actants across contexts remain under theorised. We trace interactions among sales and service staff, technological actors, and learners in a commercial blended learning assemblage and problematise a commodified performance of blended learning in relation to blended and networked learning theorised practices. Using Callon's notion of socio-technical capacities and assemblages, we redeploy attributes of a blended-learning network where interactions among sales and service staff, learners, technological artefacts and actants are described. The roles sales and service staff and technological agents in a second language enterprise perform blended learning as an assemblage that binds companies, human personnel, and learners. Using this approach, informed by material-semiotics, we follow the sequence of transformations that are involved in the production, distribution, and consumption of blended learning. Non-educator and non-human actants in sales, service, and administrative roles actively work to strengthen blended learning assemblages, making them more - or less - durable over time, while having little or nothing to do with supporting cooperative or collaborative learning activities central to theorised blended and network learning practices. Yet these actants perform key roles in performing blended learning as a product and a service in commercial settings that connect theories of blended learning.

Keywords

networked learning, blended learning, material-semiotics, performativity, commodification

Introduction

This paper traces a specific performance of blended learning in second language training. While much has been written about the relationship between teachers, learners and technology, less is known about the actions non-of educators, such as salespeople or customer service staff, working with and around learners and teachers. This study sets out to trace the interactions before and during a learner begins a commercial English language training course, to see to what extent learning is supported or contradicted by these actors. Some of these actors occupy strategic roles, others operational, but many of them have an often critical effect on the degree to which a learner persists and engages with blended learning as a product and a service.

Blended learning is often defined as an educational method that combines interrelated and mutually dependent face-to-face, voice-to-voice, and Internet-based coursework. It is situated on a continuum of e-learning, between enhanced e-learning (e-learning used in a class with a teacher), and fully online learning.

A difficulty in defining blended learning as more than just a delivery modality is that the technologies and practices that enact it are diverse. As such, the ontological, epistemological, and pedagogical perspectives; technologies, infrastructure, deployment strategies, and ratios of human-to-human and human-to-non-human interaction can substantively or minimally influence blended learning in practice. Given the "considerable complexity in blended implementation with the challenge of virtually limitless design possibilities and applicability to so many contexts" (Garrison & Kanuka, 2004) the task of defining blended learning becomes more difficult again. Multiple definitions and a wide range of blended learning practices has led to an argument

to abandon the term altogether (Oliver & Trigwell, 2005). However, an alternative to abandonment lies in the opportunity to develop a more nuanced understanding of blended learning as a theorized community of inquiry (COI) practice lies in a comparison to networked learning. Ontologically, blended learning as a theorized COI practice draws upon Dewey's "rejection of dualism" and values educative experiences for their abilities to unify "internal [psychological] and external [social] worlds" (Garrison & Vaughan, 2008, p. 14). Learning is defined as a process in which individuals make sense of their experiences Garrison and Vaughan (2008). McConnell, Hodgson, and Dirckinck-Holmfeld (2012) position networked learning as coming from a socio-cultural perspective that also draws upon Dewey's humanistic tradition but is additionally aligned with critical theorists, including Frère and Mead, and therefore, foregrounds an axiological emphasis in sense-making from experiences, world views, and practices. Epistemologically, blended and networked learning seek to avoid "distortions that may arise from a separation of theory and practice" (Garrison & Vaughan, 2008, p. 13), and position practice as "an overarching concept within which it can be argued resides theory, activity and learning in relationship to one another" (Hodgson et al., 2012, p. 293). Pedagogically, blended learning is defined as a "collaborative constructivist process that has inquiry at its core" (Garrison & Vaughan, 2008, p. 13). Within the inquiry process learners' roles and responsibilities are negotiated within educational communities. "Social, cognitive, and teaching presences" influence outcomes of these negotiations (Garrison & Vaughan, 2008, p. 18). Cognitive presence in blended learning is defined as engaging in sustained critical discourse in order to "collaboratively construct, critically reflect and confirm understanding" (Garrison & Vaughan, 2008, p. 21). Networked learning theory/practice is also "underpinned by constructivist approaches," in which "discussion and dialogue," "collaboration and cooperation," and "working in groups and in communities" are highly valued (Hodgson et al., 2012, pp. 295-298). Where cognitive science conceptualisations of learning are present in blended learning, they are problematised in networked learning. At this juncture it could be argued that blended and networked learning theorist-practitioners, who have come from differing and even conflictive theoretical positions have nevertheless adopted comparable pedagogical practices. Within these practices, learners' relationships to each other, their teachers/tutors/professors, and the technologies and material artefacts that mediate and intermediate relations rely upon an atmosphere of mutual trust (Hodgson et al., 2012) and freedom of expression (Garrison & Vaughan, 2008). These complex relationships tend to be made up of weaker and stronger ties (Hodgson et al., 2012) and do not consistently result in developing meaningful relationships with others within the community (Garrison & Vaughan, 2008). Blended and networked learning theorised practices place import on self-determination and self-directed engagement in the learning process. They share an emphasis on the centrality of difference in the learning process ((Hodgson et al., 2012) and "unintended paths of interests" (Garrison & Vaughan, 2008, p. 15). Both theorised practices include expectations for learners to be reflectively invested in the learning process (Hodgson et al., 2012) and to maintain a dual focus on self and learning community commitments (Garrison & Vaughan, 2008).

The roles of technological actors within blended and networked learning theorised practices have been represented as no more than enabling tools (Garrison & Vaughan, 2008) for "connecting and mediating" interactions among teachers, learners, and learning resources (Goodyear, Banks, Hodgson, & McConnell, 2004; Hodgson et al., 2012). These limitations on the role of non-human contributors to blended and networked learning enactments seemingly resonates with Collins and Yearley's (1992) discomfort with material-semiotic attributions of agency. Wright and Parchoma (in press) have challenged this view of technological actors as no more than inter-mediators for the transference of agency among human actors and argued that non-human actors have a role as mediators that can disrupt or support, interfere, or make durable learning assemblages. Wright and Parchoma's distinction between mediation and intermediation may also contribute to challenging unacknowledged roles of non-educator agencies in assembling commercial blended learning environments.

In commercial/commodified blended learning assemblages, blended learning performs a quite different identity that separates theory from practice and performs blended learning as product and service. Callon et al. define a product as a sequence of transformations that describe:

In both senses of the term, the different networks co-ordinating the actors involved in its design, production, distribution and consumption. The product singles out the agents and binds them together and, reciprocally, it is the agents that, by adjustment, iteration and transformation, define its characteristics (2002, p. 198).

The notion of service is when an economic agent (an individual or an organization) initiates and responds to a request for intervention, making something available, showing and acquiring the right to a specific use of an agreed upon socio-technical capacity. (Callon et al., 2002; Gadrey, 2000). In the case of blended learning, the language school coordinates the activities of salespeople, teachers, administrative and IT staff as well as engaging non-human actors such as the classroom furniture, computers, automated e-mails, a Learning

Management System (LMS) and remote servers all of which set the stage for a particular performance of blended learning. For blended learning to work as a product and a service, it often requires a significant investment in commercial, administrative and information technologies. While attention is conspicuously drawn to e-learning practices, an extensive network of sales, administrative, legal, IT and financial networks and actors need to be mobilized (Garrison & Kanuka, 2004). In this respect, it is very much a hybrid or to borrow from the ANT lexicon a socio-technical agencement or arrangement (Callon, 2004).

Blended learning, defined as a blend of face-to-face and online learning, is being used in workplace training and higher education and its uptake shows little sign of decreasing (Adkins, 2010; Blake, 2011; Kim, Bonk, & Teng, 2009). The reasons that motivate the use of blended learning are highly varied and its uptake is not without controversy or conflict (Bigum & Rowan, 2004; Oliver & Trigwell, 2005). Blended learning claims to be new and original, provoking a move away from “traditional” to “innovative” pedagogy. Claiming to be more educationally efficient, pedagogically rich, flexible, cost-effective, customizable and more accommodating to geographical constraints (Osguthorpe & Graham, 2003) it competes against the “gold standard” (Blake, 2011) of face-to-face teaching. Although the proliferation of blended learning may appear to be ineluctable, adoption into practice still depends on the help of allies (colleagues, theories of learning or profitability, computers, clients and learners) to exist.

The influence of managers and policy makers, characterized as the “corporate approach” can be seen as replicating or generating predominately negative and durable networks that contradict and impede the work of educators (Bigum & Rowan, 2004, 2008). However to assert that the various actor-networks that constitute the socio-technical assemblage of blended learning are inherently conflictual or even incommensurable is an assumption that needs to be questioned. This paper seeks to describe a possible performance of blended learning with the potential to later trace the effects that this kind of assemblage has on learning. Focusing only on the service and product aspects of blended learning, we examine how blended learning is performed as a product and a service and how these performative realities contradict and support each other.

Material semiotics

This paper takes material semiotics as way of framing blended learning. Material semiotics, variously known as actor network theory (ANT), actor-rhizome theory, the sociology of translation or actor-network sociology (SAR), began with the study of science and technology (STS) in the 1970s. From the 1990s onward applications of actor network theory rapidly spread to other areas of social life, including the study of organizations (Akrich, Callon, & Latour, 2006; Latour, 2005) healthcare (Mol, 1999) economics (Callon et al., 2002; Preda, 2006) and education (Bigum & Rowan, 2008; Fenwick & Edwards, 2010). The proponents of actor network theory do not aspire to create a theory, indeed claiming that the T for theory in ANT was “too much” (Callon, 1999, p. 194). ANT does not seek the imposition of Bourdieusian-like “mirrors” and Marxist sub-or superstructures which are rejected, as “primitive” and “insufficient” ways of understanding relations (Latour, 2005, p. 84). Nor is ANT recourse to societal or technological determinism. Technologies are not understood as causal agents that influence society in a positive or negative way. (Kanuka, 2008; Oliver, 2011) Similarly, society, like technology is understood as “the consequence of associations and not their cause” (Latour, 2005, p. 284). Questions of causality cannot be addressed, as a material semiotic approach is used to answer the question of how and not why a network (or materially heterogeneous relations between actors) succeeds or fails. (Bennett & Oliver, 2011). Material semiotics can be considered as a way of taking the study of concepts to its logical extreme and as such is the semiotics of materiality. Rather than having the signifier at one pole and the signified at the other, it takes “the semiotic insight, that of the relationality of entities, the notion that they are produced in relations, and applies this ruthlessly to all materials — and not simply to those that are linguistic” (Law & Hassard, 1999, p. 14). A feature that distinguishes material semiotics from other forms of analysis is what is sometimes referred to as the semiotic turn:

We thus distance ourselves from a classical epistemology that opposes the world of utterances and the (more or less real) world of things to which the utterances refer. These references are not outside the universe of utterances: they circulate with them and the enrolments from which they are issued (Callon, 2006, p. 269, our translation).

Anti-essentialist, it takes dualisms such as agency and structure, subject and object, nature and society, human and non-human and denies that such dualisms exist. Human and non-humans are in a dynamic configuration or network and retain their place and identity as a part of a continuous series of alliances, negotiations, attachments and separations (Callon, 2004). The world is populated by “quasi-objects” or objects that are defined by their

effects and not by a priori attributes as they would be in an essentialist account of associations (Latour, 1993). As such, when studying the interactions between actors, whether they be humans or non-human, ascribing essential characteristics to them and then using these to explain their actions is unhelpful and misleading.

Constructivist approaches share with material semiotics certain assumptions such as society having to be continually composed, established and maintained. However, a key difference is the inclusion of non-human agents by according them the same degree of agency and analytical priority (Callon, 2006; Latour, 2009). Similarly, taking a non-modern stance toward being and knowing, it does not assume that there is one reality “out there” to be discovered or even a multiplicity of perspectives that are all clustered around a knowable or unknowable single reality. Rather, that ontology must be pluralized, for “if reality is done, if it is historically, culturally and materially located, then it is also multiple. Realities have become *multiple*” (Mol, 1999, p. 75 italics in original). This kind of approach can show how even something as apparently objective as anaemia, depending on the way that it diagnosed, is performed into multiple existences (Mol, 1999). Thus by extension, blended learning, which is even less well defined, will not only be perceived differently, but be different (all the while referring to seemingly identical network of actors) because of its multiple performed ontologies, epistemologies, and pedagogies. Following from this and perhaps one of the most radical and significant claims made by ANT is the coalescing of ontology and epistemology or the performative turn:

The shift is from epistemology (where what is known depends on perspective) to ontology (what is known is also being made differently). It is a shift that moves us from a single world to the idea that the world is multiply produced in diverse and contested social and material relations. The implication is that there is no single “world” (Law & Urry, 2004, p. 397).

As such, knowing something, performing knowledge brings reality into existence. For something to exist, it needs to affect and be affected, it needs to leave traces; there is no such thing as something that is invisible (Latour, 2005). As reality is relational and performative knowing and being are co-produced in the same performance (Law & Singleton, 2003).

Material semiotics offers a way to frame and trace changes and developments in education. Framing is a way to identify agents that are separate to each other and allows them to be defined, recognising all the while that complete framing is impossible as externalities, (such as know-how, information, skills) will always overflow. As it describes mediators, or actors that make a difference, disrupt and leave traces, it is well suited to rapidly and constantly changing fields such as technology-enhanced learning. As material semiotics is interested in the hybrids or quasi-objects (Latour, 1993), socio-technical assemblages such as blended learning present themselves as typically heterogeneous networks of people and things apt to be described. Yet, like any approach, the use of material-semiotics has not gone uncontested and one of the most virulent critiques of ANT was made by Collins and Yearley. Although ANT has changed since this debate, most of the lines of critique (pseudo-symmetry, tautological, counterfactual analysis, superficial use of terminology, non-anthropocentric) remain unchanged (Yearley, 2005). Perhaps the biggest objection is the so-called “misconceived extension of symmetry that takes humans out of their pivotal role” (Collins & Yearley, 1992, p. 322). ANT does not claim to be right in collapsing the separation between the supposedly separate worlds of the natural and social. It collects evidence and expects its critics to do the same (Callon & Latour, 1992).

Methodology and methods

ANT accommodates a wide range of methodologies. One common feature of ANT or material semiotic descriptions is the case study approach (Law, 1999, 2007; Preda, 2006). Given ANT’s abhorrence for assuming the existence a priori structures and behaviour, there is often a marked preference for exemplary case studies (Law, 2007). It is an approach that traces everyday micro-interactions (Akrich et al., 2006) and while it can be theoretical (Law, 2007; Mol, 2008), it is better known for its emphasis on gathering of empirical data (Latour, 2005; Law, 2007). We use case study methodology, which is suited to reporting the “complex dynamic and unfolding interactions of events, human relationships and other factors in a unique instance” (Cohen, Manion, & Morrison, 2000, p. 181). For this exploratory case study, semi-structured interviews and observations of sales presentations, meetings and service team interactions were conducted. The sample was purposive, targeting two non-educators involved in selling and supporting blended learning respectively. Data were analysed by a process of tracing the various ways these actors perceived and performed their roles in and around blended learning. However, in this study non-human relationships are included. The digital traces left by interactions between automatized e-mail systems, learning objects and learners were traced and converted into network graphs.

Evidence of networks was sought by analysing transcripts, field notes, and digital traces using a material-semiotic lens. This was done in two ways. The first was to attempt to apply the approach used by early-ANT and determine if the four moments of translation: problematisation, interessement, enrolment and mobilisation, could be identified (Callon, 1986). The second was by applying a material semiotic concept, the performative turn, to trace how the various actors at B-Learn, the language school where the actors work, perform their roles and in turn, drawing upon existing networks, bring blended learning into knowing and being. Both participants, like the company, have been given pseudonyms and gave consent for the content of their interviews and observations of their workplace activities to be used in this paper.

Findings

One woman and one man participated in this purposive sample. They work at a small to medium-sized language school that creates, sells and deploys blended learning with the aim of assisting with the acquisition of English as a Foreign Language. B-Learn deals almost exclusively with other businesses. While learners may choose what they wish to study as part of their professional development, the vast majority of the learners have little or no say in the specific modality of their training courses as the courses are often chosen by their managers.

Sales story: performing blended learning as a product

Dominique's task is to persuade clients to use blended learning to learn English as a foreign language. He seeks to persuade them that face-to-face classes are a less efficient way of learning from both a pedagogical and financial standpoint. For blended learning to exist it needs to, with Dominique's help, to bind agents to itself. It needs to problematize the existing network, translating clients, rooms and the training apparatus of the company, persuading the client to use blended learning. Blended learning is able to convince other actors of the necessity of an elaborate network of people and things to learn English successfully. As Dominique says, the "the entire follow-up and service department is there as we have to track, follow and support our learners and not just tell them, here's your e-learning now off you go." Each time a learner interacts with the LMS, whether by doing an online quiz, consulting a document or sending a message, they leave a digital trace. Automated e-mails and planned phone calls that remind, encourage or assist learners to remain enrolled are sold as a critical learning service. This is the first moment of translation where the first actor (salesperson from B-learn) persuades the second actor, the Human Resources (HR) manager, to take an interest in blended learning. By using a collection of rhetorical devices ranging from rehearsed pitches, price charts, testimonials and PowerPoint presentations the salesperson must convince the HR manager to a) abandon face-to-face teaching and b) work with the salesperson to persuade learners that working with computer is preferable to working exclusively with human actors.

Blended learning attempts to impose itself as an obligatory passage point which, as the name suggests, is part of the network that imposes itself as an agent that influences the effects of the other agents and can assemble influential networks of people and things, becoming durable and persistent. The client's budget allocated to training will go not just to language training, but blended language training. The second moment of translation comes when the HR manager signs the contract and commits themselves, colleagues and their professional reputation to blended learning. If all goes well, the HR manager is showered with praise but if this interessement does not work with the learners then his or her standing in the company is jeopardized. Interessement leads to another enrolment; the learners' and HR manager's perceptions of successful learning are translated into blended learning. However, this alliance is constantly at risk of being challenged and falling apart:

If we put the learner into a situation of instability in relation to his learning process, because for the past 40 or 50 years he's only ever had face-to-face English lessons, and we tell him 'No, now you have to take responsibility for your own learning' it's hard and an approach that could potentially be criticized by the learners, and if the learner criticizes his English lessons, this will ricochet back towards the training manager, and when the training manager has her end of year review with her boss, he'll say, 'Listen, you've messed up, English lessons aren't going well, I hear this and that, people aren't happy with their lessons, so enough's enough'.

If this process can be successfully negotiated, the learners become mobilized as allies. B-Learn can exercise power over and through their allies (learners and the HR manager) and impose their authority as providers of effective blended learning. They become logos on the website, graphic data displays showing high retention or low attrition rates and other representations of successful blended learning. However, this process is more complex and less schematic than it may first appear. Material-semiotics understands reality to be performative. (Latour, 2005; Law & Singelton, 2003). It exists because it is done, not because it is. As such, the success of

blended learning depends on it being continually performed and on its continual maintenance of the network of actors or allies. It requires Dominique being able to participate in the disruption of older, established learning networks, asserting the primacy of blended learning, the product that he sells.

Service story: performing blended learning as a service

Before blended learning can begin as a socio-technical capacity, Diane and her colleagues in the service department need to coordinate and implement the scheduling of classes, the registering of learners in the LMS and other administrative tasks deemed necessary to get the learner working. Unlike the sales staff who interact almost exclusively with HR managers, the service team is in direct contact with individual learners, booking classes, sending reminder e-mails and phoning to ensure that learners are able to maintain their role in the network. As learners do not choose but are often told to begin a blended learning course there is often some bewilderment or refusal to begin the process:

...and basically the stress they have, and not all of them of course, the ones who are really stressed, they're stressed about everything. They're stressed about their schedule, they're stressed about the teacher...and it's just all about making them feel comfortable and reassuring them (Diane).

The process of problematization has to begin again. Learners are invited to do a placement test. This reminds them of their difficulties in speaking, and thus their need to learn with a company such as B-Learn. This allows B-Learn, in both senses of the term to enrol learners, categorize them and assign them to training paths, trainers and e-learning material. A successful service department will have high retention rates with learners 'on-track.' Learners remain as actors in the network by attending classes, using the LMS assiduously for booking classes and completing their e-learning on time. This does not always happen easily. As Diane says, 'That's part of [the service] role within the organization is to push for blended ... we kind of push them with the e-learning to take the mouse, take the computer, click and learn and realize that they are learning.' The service team continues the 'struggle for attachment' (Callon et al., 2002) initiated by the sales representative and constantly formulates new ways of managing the learner-consumer's attachment to the service and products offered to him or her. They telephone and e-mail each learner, recording these interactions in the LMS. The service team however, does not act alone in its effort to keep the learner connected. Typically, learners will receive approximately 40 to 50 automated e-mails per month reminding them of upcoming classes, completed reports and e-learning exercises to do. While individual members of the service team send some of these e-mails, the majority of them are automated. They are drafted in advance and deployed by the LMS throughout the training cycle. In the example below, of Amandine, 97% of the e-mails that she received were sent by the LMS with the remainder sent by members of the service team (Figure 1).

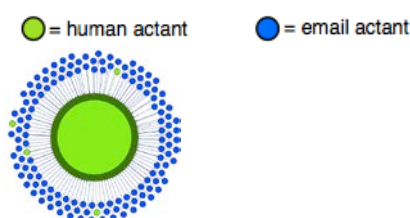


Figure 2: Total communication with a learner over a three-year period

From late 2011 onwards, an intensified effort was made to maintain if not constant, continued contact with learners. In this case of Amandine, this resulted in over 140 e-mails being sent by both the LMS and members of the service team. As this network developed, it became a highly centralized one with the learner at the centre. Each learner-LMS-service team network replicated this pattern with each learner being a highly connected node but almost entirely to the LMS (Figure 2).

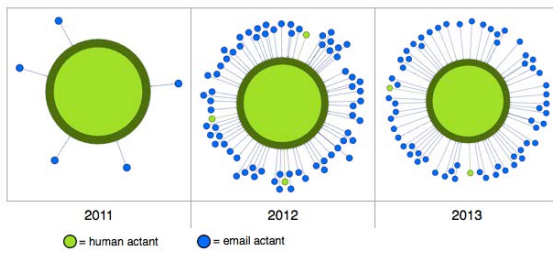


Figure 3: Communication with a learner over a three year period

In the event that the e-mails are successful, the socio-technical network is maintained by the multiple and daily interactions between the learners and the e-learning objects (Figure 3).

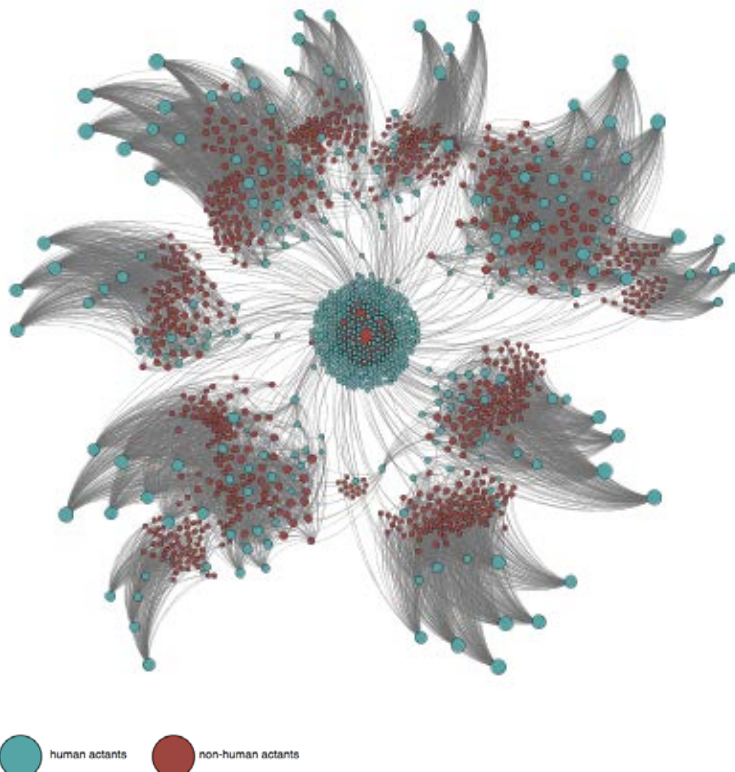


Figure 3: Interactions between learners and learning objects (non-human actants)

However, a certain proportion of learners will never be enrolled because they are repelled by computers, timetables, schedules, e-learning or other actors within the network. Learners will also refuse the technico-human capacity of blended learning precisely because of the perceived ‘technico’ element. Both Dominique and Diane mention the powerful influence of the discourse that claims that traditional or face-to-face classes are always the most effective way of learning.

Discussion

Rather than framing the B-learning as an obligatory passage point or ‘middle man,’ it is useful to see blended learning in its commercial identity and performance as a product and service. In this context, blended learning is able to strengthen its place and multiply its effects as a socio-technical assemblage and capacity. As a product it can be framed, sold and easily distributed. As a service, it is called upon to intervene in the absence of English language skills and disaffection with ‘assured’ results provided by traditional learning networks. It is also a show, a performance in the ordinary and material-semiotic sense of the word.

As a performance, blended learning is a fragile assemblage that constantly requires the recruitment of allies to maintain its existence. Without the constant work of actors, such as the sales and service teams (and teachers), blended learning is often ignored and the assemblage falls apart. Additionally, the struggle to impose different realities can create instabilities within the network. Jones, Ferreday and Hodgson (2008) demonstrated in a study of networked learning, how contradictory elements that are in tension become evident when boundaries between different networks are crossed. This is demonstrated in an earlier ANT-informed study, where Bigum and Rowan (2003) examined the concept of performing quality in online learning. They argued that administrative pressure by the university “in the name of efficiency” curtailed the variety of performances that are possible thus making certain performances durable and more likely to be replicated. These processes also had the effect of obscuring the “creative spaces that exist between performances” (p. 8). Like online learning, the performance of blended learning can be highly heterogeneous, but a variety of forces can mobilize actors in ways that will perform often radically different assemblages of learning and sometimes very different realities.

Implications

By moving away from an exclusive focus on human actors and onto those that are technical, conceptual and material, material semiotics offers a more flexible, diverse and empirically coherent understanding of the complex arrangement of associations and dissociations that do or perform blended learning. As a service and product, blended learning has decidedly hybrid character. So too does the learner-consumer hybrid. However, the role of this paper has not been to determine if these assemblages are inimical to teaching and learning. Commodification in learning is a controversial issue and often at the centre of clashes between radically opposing philosophies of education (Kanuka, 2008; Parker, 2008). Competing discourses alternately argue for commodity-service assemblages facilitating financial gains and “effectiveness, consistency, efficiency [and] fiscal sustainability” (Parchoma, 2011, p. 63) or a COI practice more oriented towards the learner, privileging philosophically and research-based innovations.

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