

The politics of the delete button: Interrupting online work-learning practices

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Workers today are faced with possibilities of wider networks of knowledge generation. Learning in and through work is one of the many spaces in which pedagogy may unfold. Web technologies amplify this fluidity and networked learning now encompasses a plethora of practices. New technologies are believed to contribute to more mobile and connected professional learning and knowing practices. Yet, objects do not act by themselves, and it is the relations around these technologies—the *sociomateriality* of the configurations assembled—which potentially reconfigure ways of knowing. In this paper, the negotiation of relational and material aspects of online pedagogical practices is explored. I focus on the delete button and deleting practices of self-employed workers engaged in informal work-related learning in online communities. Exploring a pervasive everyday practice, such as deleting, affords glimpses into the sociomaterial entanglements energizing enactments of online pedagogy and knowledge production. Understanding the delete button as a fluid object in fluid space begins to illuminate its complexity. Deleting practices which work to stem the tide of information pushing itself onto screens, as well as those practices that attempt to delete traces left behind on screens and “in the cloud”, are examined. Constantly negotiating absence and presence, deleting practices mobilize both digital inclusion and exclusion. Such sociomaterial practices around the delete button shape interactions with information and knowing possibilities and enact networked learning practices in particular ways. Although disarmingly straightforward at first glance, by unravelling some of the complex human-object assemblages associated with deleting, opportunities for interruption and innovation in online learning practices emerge. Actor Network Theory (ANT) provides the theoretical and conceptual tools for this exploration. ANT is well suited for studying complex and mobile practices which take the pervasive role and energy of objects into account. Emphasizing more critical understandings of the co-constitutive and performative relationship between people and web technologies, and how these relations both smooth and complicate work-learning practices online, enables adult educators to keep Latour’s (2005) “matters of concern” open. I conclude with observations on the politics of the delete button and implications for more sophisticated digital fluency in everyday pedagogy.

Key words: work-learning; online communities; actor network theory; adult education; digital literacies

Learning in and through work is one of the many spaces, outside the auspices of formal educational institutions, in which pedagogy may unfold. Here, pedagogy is fluid, assuming multiple shapes depending on the networks of people, ideas, texts, resources, and practices mobilized. Web technologies amplify this fluidity. With everyday use of smart phones, iPads, and social media such as Facebook and Twitter to tap into podcasts, wikis, and blogs, pedagogical practices are increasingly intertwined with the web. The complexity of work-learning practices in online spaces should not be underestimated. Engaging in online collectives and networks is different than conducting a Google search or reading a Wikipedia entry, and is not always as simple as posting a question or reading a reply. Moreover, online learning now encompasses a plethora of practices. It is therefore important to tease out the specificities of entanglements between people and technologies in *particular* practices.

New technologies are believed to contribute to more connected ways of knowing and learning. Yet, it is the practices, or to use Young’s (2006) phrase, the “sociality” around Web2.0, not the properties of the technology itself, which drives any reconfiguration of ways of knowing (p. 257). Moreover, Waltz (2006) writes that mythologizing the internet with claims that it revolutionizes social intercourse “inhibits a more careful accounting of how nonhumans interact with the full scope of other participants with which it is involved” (p. 57). Waltz’s statement reflects the contemporary turn to the relational and material. Postings, avatars, archives, Facebook profiles, viruses, an online CV, Google, computer screens, the delete button: networked learning practices are caught up in, and shaped by, artefacts such as these. Indeed, Networked Learning takes a relational view of learning,

focusing on connections between people, learning resources, and technologies (Jones et al., 2008) and emphasizing the need to attend to processes generated by connectivity between these network elements (ERSC, 2002).

In this research project I explored how self-employed workers experienced informal work-related learning in online communities. The online communities of interest in this study were spaces *outside* the auspices of formal courses: organic gatherings of people online, formed because of an interest in exploring a topic with others. Professional associations, workplaces, and commercial enterprises may also nurture such spaces. As the research progressed, questions emerged about how the relational and material aspects of these pedagogical practices were being navigated. One "thing" of interest in my study was the delete button. In this paper (which draws on Thompson, in press a), I draw on Actor Network Theory (ANT) to explore the enactment of deleting and ambivalences created for work-related learning practices online. Such examination will help to highlight complexities and tensions of online learning for possible re-thinking and interruptions on the part of adult educators and worker-learners. I begin by exploring key tenets of ANT and how these guided the research approach. Next, delete button assemblages are unravelled and include those with the particular role of stemming the tide of information pushing itself onto screens as well as those assemblages addressing the specificities of deleting persistent traces left behind on screens and "in the cloud". I conclude with observations on the politics of the delete button and implications for more sophisticated digital fluency in everyday pedagogy.

About ANT

ANT is a collection of relational and material understandings, concerned with associations between human and non-humans in day-to-day practices. Described as a theory, philosophy, approach, method, sensibility, and/or toolkit, ANT is not easily pinned down. Similar to Fenwick and Edwards (2010), I acknowledge the diversity of ANT thinking and use the term ANT as a "temporary marker" to refer to a "constellation of ideas" (pp. 1-2). ANT advocates that objects, such as grass can do things in the world, just as atoms and Popeye do (Harman, 2009). ANT focuses on connectedness. Actors—human or non-human—are co-constituted in webs of relations. An object, for example, is what it is and does what it does because of the retinue of relations in which it is entangled. Hence the phrase *actor-network*. Sociomaterial sensibilities suggest that it takes both human and non-human actors to enact any practice. Suchman (2007) concludes that it is not about "assigning agency either to persons or to things but to identify the materialization of subjects, objects, and the relations between them as an effect ... of ongoing sociomaterial practices" (p. 286). Attention focuses on the assemblage. Yet, being interconnected is not enough. It is the movement, flow, and changes that are of interest (Latour, 2005). Through a series of translations actants become linked together. ANT is interested in how alliances come to be and how actants end up juxtaposed with others, asking: how has this collection of actants come to be assembled this way? Although ANT is not a learning theory, by studying the specificities and materialities of particular webs of relations, researchers can understand how knowledge production and pedagogical practices are enacted in dynamic and multiple networks.

Methodological Notes

In an effort to bring web-technologies to critical inquiry, they were treated as participants in this study. The participant list therefore included the delete button as well as postings, avatars, tool bars, emoticons, archives, online profiles, viruses, hyperlinks, passwords, RSS feeds, and Inboxes. Human participants in this study were own-account self-employed workers (contractors and consultants without staff). Semi-structured interviews, which varied in length from one to two hours, were conducted with 11 self-employed workers to explore how they engaged with others in online spaces. They ranged in age from 35 to 51, had been self-employed for 6 months to 21 years, and worked in a variety of fields: consultants (in international development, organizational change, leadership development, occupational health); the learning field (e-learning designer, corporate trainer, sessional university instructor); one was a sport psychologist, another was a graphic artist, and another a daycare provider; two were entrepreneurs in the midst of (re)defining their business. Pseudonyms were assigned to protect the anonymity of human participants. The size of the online communities discussed by participants ranged from 20 people to several thousand. Technologies used included ListServes, discussion boards and forums, Yahoo groups, e-mail, blogs, and RSS feeds. Anecdotes describing deleting practices were developed from the data and analysed using an ANT inspired heuristic framework. Each of these anecdotes served as an entry point for analysis. In Latour's (2005) terminology, these anecdotes enabled me to create conduits into the rest of my data and became layered as new associations and connections with other data came into focus.

The Delete Button

Workers in this study reported that they were engaged online in order to learn: connecting with others to gain from their experiences, exploring new ideas, and accessing information. “Keeping up” and “staying on top of things” were familiar refrains. “Taming” the unruliness of the web and its reputation for distraction were overriding concerns. There appeared to be a thin but fluid boundary between information-rich and information-overload, between control and chaos. Managing this boundary was a critical aspect of their learning practices. And so, the worker-learners in this study became entangled with the delete button, deleting the non-relevant, non-credible, annoying, threatening, and sometimes (by accident) the useful.

It seems the delete button is something we click when we want to get on with things. Sometimes it might volunteer to delete things for us. It even talks back: asking if we are sure we want to delete something or confirming when we have. It can take different forms, such as a button marked “delete” or a red “X” on a screen. It is more than a tool. As Aanestad (2003) explains, the capacity for action is relational rather than embedded in particular elements. The delete button makes things happen by enrolling other actants: coordinating with other “digitalia” and people. When we accept its invitation, humans enter into a sociomaterial assemblage: we are “deleting” and we could not do this without our delete button. We become—what I have labelled in this study—the *deletebutton-learner*. The delete button is not just a button one presses on their mobile phone screen or computer keyboard. Rather, the deletebutton-learner is a hybrid assemblage of person + delete button + digital device + online digitalia.

Deleting What’s Pushing Itself on the Screen

Ryan, an occupational health consultant, pulls out his Blackberry. Let’s see if anything is in my Inbox. Here’s one. Smith. I recognize the name because he posts fairly often. So I look at the name. And then what I’ll do is I’ll look at the subject and if it’s something I’m really not interested in I’ll just delete it. I won’t even read it no matter who it is from. Typically the posts are fairly short so they’re not these long things you have to read. But if I’m really busy then I’ll just hit delete.

Ryan’s fingers hover over the delete button as the subject line, author, and the clock are consulted before time is spent with a posting. Postings are usually texts but can be videos or images. They are often accompanied by attachments or weblinks and sometimes embedded with graphical and animated elements, even viruses. Some postings mobilize the delete button as they appear on screens. Others are savoured, read intently, or saved.

People delete with glee and guilt, gingerly or generously. A person may delete without even reading the posting. They may delete everything by a particular person they do not care for. And so, the assembly of other actors gathering around the delete button grows: names, a track record for “whittering” on, “noisy” postings, irritating personalities. The delete button relies on objects such as these. But they are finicky. One day an interesting subject line staves off the delete button but the next day, when time is tight, even an interesting posting gets deleted without being read. Parts of postings become specificities, shifting in their ability to influence the network.

Follow the flow, says Latour (2005): “Object and subject might exist, but everything interesting happens upstream and downstream. . . . Follow the actors themselves or rather that which makes them act, namely the circulating entities” (p. 237). What is happening further up and down the chain of action? Well, there is often too much information or the wrong sort of information. The delete button emerges as a line of defence against information overload, which Himma (2007) describes as “access to more information than is conducive to human wellbeing” (p. 266). The delete button culls through the myriad of online postings that present themselves onscreen so that attention is directed to the relevant, credible, and worthy. The delete button is also called into action when the workers in this study feel overwhelmed by all the “stuff” staring them in the face when they login. Or, it may be part of a methodical disciplining of one’s Inbox; a matter of “cleaning house”. Oliver explains:

As well three online groups I have probably 10 RSS feeds that I read pretty much on a daily basis. I just scan the headings. If something looks interesting then I’ll read it but otherwise I’ll just delete it. You have to become disciplined in what you read. . . . I know that if I subscribe to a new RSS feed then I really should delete an old one in order for it to be sustainable. Otherwise it will just grow and grow. I’m pretty ruthless. If stuff comes in that isn’t relevant the delete button gets hit without any thought. My Inbox has not scrolled for many years. At the moment I have three or four messages in

my Inbox. I set up filters for things so they don't appear in my Inbox if I don't want them to. I've seen Inboxes with 100's, if not 1000's, of messages in them. I don't know how people can operate.

The delete button enrolls other actants as needed to get the job done, communicating through digital codes and coordinating with other bits and pieces of digitalia. Oliver delegates deleting work to filters so he never even sees postings and there is no need to press the delete button: a kind of "pre-deleting". For Oliver, the number of messages in his Inbox has been translated into a barometer of his "ruthless" self-discipline: three or four is a favourable measure of efficiency. The delete button has become a workhorse with a moral mandate to keep things in control, to be efficient, and to stem the flow of undesired objects or people. It works to direct attention to that deemed important and timely, briskly moving away that which is not. Operationally, it is extremely sensitive to small changes in what other actors are doing. All it seems to take is an uninteresting subject line, a filter, a rating, too many messages in an Inbox, or a busy person.

The delete button makes things happen. But it does not act alone and there are multiple ways for choreographing these practices. So far, the delete button can act like an *eraser*, helping to create uncluttered spaces conducive to "learning" work. This actor-network also seems able to function as a *valve* to mediate between a person and the online world: stopping or re-directing the flow of digitalia and attention. Presencing and absencing other actors—digital objects, people, web technologies—configures spaces for pedagogic purposes. Such material practices around the delete button shape interactions with information and enact online learning practices in particular ways. These ongoing negotiations enact an array of relations between a person, their delete button and its entourage, the screen, and online digitalia. What would these self-employed workers do without a delete button? Objects continually press into the network. Because people have this feature on their digital devices it seems that the deletebutton-learner is deemed able to cope with all that comes their way. A particular pattern of relations legitimizes the onslaught.

Deleting What's Left Behind on the Screen

Postings—texts, images, videos—are not the only things deleted in the flow of networked learning activities. Occasionally, these worker-learners "deleted" themselves, opting out of online spaces or trying to remove traces of themselves online. More complicated practices ensue when the delete button meets the digital footprint. This study focused on engaging with others in online communities. In order to make an online space conducive to learning, people share. Making postings, distributing self-created content, and disclosing personal information is common. The circulation of such digitalia is facilitated by the capabilities of Web2.0 technologies and the rhetoric of user-created content, social networking, and community that celebrates openness and collaboration. The digitalia that become part of (in)formal learning experiences often have the capacity to reverberate in other spaces and networks; perhaps in unintended ways. Such digital objects are fluid: not confined to one space or time, juxtaposed with other things in limitless ways, shifting and adapting as they are entangled in other networks. Some participants were aware of the social life of their digitalia. Others not.

Although Dorothy had been active in online communities for 12 years it was only in the last year she realized that she if she Googled "dotcare" (her online name and also the name of her home-based daycare business) any online conversation she had ever had would appear. Dorothy's online name, used everywhere, made such connections easy. The assemblage of the online footprint via a Google search does as intended: it gathers, orders, and displays. One's internet presence—the places you have been and the things you have said, done, and shared—is amalgamated and translated into a digital footprint. Public and not easy to alter, I suggest that a digital footprint is a hybrid of person + screen + digital artefacts + web archives + search engine results. Without engaging with an array of objects and web technologies it is impossible to be someone who is connected online. As these self-employed workers explained, it is logical to expect that potential clients or partners will Google you. Indeed, most people Google themselves occasionally to see that version of their digital footprint.

Elsewhere I reported on the uneasy passages which ensue as digital trails, online security, and tensions between public-private exposure are navigated (see Thompson, in-press b). In this paper, I explore what happens when the assemblage of the online footprint, a complex actor-network, becomes entangled in the everyday practices of deleting. In Thompson (in-press b) I introduced Lee, who is comfortably enmeshed in a close-knit online group, one of his most useful learning spaces until the day he opens an attachment from a new community member only to discover it is loaded with viruses that proceed to attack his hard drive. He spends years trying to erase all records of his identity on the internet. He explains:

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It's taken up until now to remove it because at that time if you were to do a Google search on "Lee" you'd get 10 pages all with links related to stuff I had posted or developed. So I went through and took my name off the web pages I had developed and I unsubscribed from discussion boards, cancelled my business name, my business web site, and my domain name. It took a long time. I totally cut back on my online presence and now I keep a very low profile.

For Lee, information is translated from something that is shared, in order to build a connection and learn with others, into something that reveals. Deleting practices become more sophisticated. Enrolling and enrolled by web archives, the Wayback Machine, web administrators, domain names, websites, and Google, the delete button actor-network stretches.

Mia is also conscious what a Google search of her name reveals. Active in several online communities to prepare her for her next career move, her digital footprint has a sense of purposeful construction:

I don't use my own name on the [43 Things] site. And the picture that I use isn't the picture I use anywhere else. So it's my private space that I don't share with anybody I know. Because Facebook is searchable on Google I wouldn't put anything on there I wouldn't want to share with everybody. I do worry about people if they want to check me out by googling me. I don't want the inane chatter on there because I don't think in a professional context that it would be particularly helpful. I don't want to be that revealed.

Images and online aliases she does not use anywhere else are enlisted in order to maintain a high degree of anonymity in these online learning forays. Mia is *obfuscating* her online presence. Brunton and Nissenbaum (2011) describe obfuscation as "short-term misdirection"—the addition of noise (i.e., aliases, false information) to data streams to add ambiguity (p. 13). Unique images and aliases are enrolled into Mia's digital footprint so she does not have to mobilize the delete button in the same way as Lee. Mia and her delete button are negotiating a different relationship.

Constant and Fluid

The delete button appears to be an *immutable mobile*. Latour (1990) describes an immutable mobile as an object which maintains its form thereby fixing ideas (and practices, statements, actions) in place so that they can circulate and mobilize other networks. If you wish to delete something onscreen you click on the delete button. Its relations with other objects and people have coalesced to the point that it has become predictable and reliable: it has solidified. Latour (1987) explains that when many elements are made to act as one, a black box is created. The complex work going on to keep an assemblage together and functioning becomes invisible. Perhaps it is the black boxing of the assemblage that is inviting. Documents, videos, e-mails, and contacts are deleted onscreen with the same ease. One does not need to think about the complex orchestration of software, hardware, networks, codes, and commands working behind the screens. As an immutable mobile, the delete button is familiar, mundane, accessible.

However, Law's (2009a) conceptualization of *mutable mobiles* opens other possibilities: objects that reconfigure themselves, different realities loosely rather than rigidly associated, and multiple actor networks. Law and Singleton (2005) describe mutable mobiles—fluid objects—as defined by a set of relations that gradually shifts rather than holding itself rigid. The delete button also fits this description. The delete button is implicated in efforts to manage, minimize, obfuscate, exclude, direct attention, prioritize, order, dis-order, and re-mix. It takes on different configurations as it enacts practices such as erasing; re-directing flows of information, people, and ideas; throwing up screens; and shredding revealing information. We have already seen how no single assemblage can do all of this. It is a multiplicity of configurations, negotiations, and effects. Each of these practices becomes a different "assemblage of relations" (Law, 2009b, p. 2).

The different practices just described are not merely a gradual re-shaping of relations but abruptly divergent assemblages. The delete button is in constant negotiation with absence and presence. It brings to presence the worthy, credible, and relevant by absencing that which is not. Sometimes it even anticipates what might appear onscreen (absenting the not yet present). As an assemblage of many actors, it helps to direct what appears on screens and what does not. Or what stays on screens and what gets quickly wiped off. It has become one of the arbiters of digital inclusion and exclusion. It takes the shape it does because of what is absent and present in online learning spaces while also doing its work to absence and presence other entities. This object no longer seems so mundane.

The delete button looks to be both constant and fluid. Perhaps this is not surprising. Ways of being online are constantly changing. Deleting practices must follow suit. To keep working as a delete button it must be innovative and strategic, adapting to changes in web technologies; new forms of digital artefacts; more sophisticated data processing, profiling, and surveillance processes; more persistent and persuasive push technologies; and new demands from human actors for more, better, and personalized information. And then it has to educate its users—the other actors in the network.

The Politics of the Delete Button

The delete button and its entourage delivered multiple performances in this study: acting as a line of defence against information overload, arbitrating relevance, serving to presence and absence other actors, safeguarding against intrusion, and both opening and enclosing spaces. As the delete button assemblage was mobilized to take on specific roles in online learning practices, it enacted people in particular ways: the efficient learner, the critical consumer of information, the self-disciplining worker, and/or the protected-surveilled citizen.

Such multiple enactments have implications for networked learning practices. Lee attempted to delete all traces of his online activities. But what happens when a person deletes their contributions to an online forum? The pedagogic value of that conversation is likely reduced when these postings disappear. Hemetsberger and Reinhardt (2006) found that it is often the line of argument and the evolution of ideas which provides the most valuable insights in an online forum, and not the end point conclusions. In this instance, the delete button adds to the incoherence of online learning practices by erasing parts of the conversation, resulting in fragmentation of ideas and knowledge. Or consider how one's digital footprint becomes translated into an e-Portfolio of sorts. In the learning field, e-Portfolios are created purposefully by learners to showcase their knowledge and learning journey. But digital footprints are more challenging to shape and thus end up as a mishmash of online artefacts and thoughts from yesterday and 10 years ago. Depending on your online activities, your learning can be very public and the past can be hard to leave behind. This will not bother some people. But as the web is often a confluence of work, learning, and play spaces (despite efforts to create boundaries) it can be problematic for some. Mayer-Schönberger (2009) argues that a "comprehensive digital memory represents an even more pernicious version of the digital panopticon", resulting in self-censorship and a degree of public confrontation with one's past that may constrain learning (p. 11). Participants in this study engaged with their delete button in different ways in attempts to negotiate their way around the digital panopticon.

Evoked by a rather innocuous button on a keyboard or screen, deleting seems to be an integral part of networked learning: as both a mundane and exotic practice. Although disarmingly straightforward at first glance, by unravelling some of the complex human-object assemblages associated with deleting, opportunities for interruption and innovation in online learning practices emerge. Keeping Latour's (2005) "matters of concern" open enables educators and citizens to critically interrupt premature solidification of online pedagogical practices. The next section looks at the effect of deleting practices on online learning practices by raising questions about liveable assemblages and new digital fluencies.

Liveable Assemblages

This study highlights how the delete button is a valued, and integral, assemblage in networked learning practices. Fenwick and Edwards (2010) advocate attending to the energies "things of particular significance and apparent force" provoke in different spaces (p. 9). As workers venturing online for learning purposes, Mia, Lee, and Dorothy became entangled with their delete button in order to manage the digital footprint they generated through their online activities. Although there is always the alternative strategy to "bury" what you want to remove by adding reams of self-generated information that will rank higher in search algorithms, deleting practices are becoming more sophisticated and complex. Consider the surge of interest in online services, such as *WebSuicide*, which promise to delete all your information—profiles, friends, and messages— from social networking sites. Or *Vanish*, a prototype created at the University of Washington, designed to self-destruct digital data on its "expiry date" in efforts to protect data privacy (Geambasu et al., 2009). Another online service, *reputation.com*, offers a suite of products (for a fee) to alert you to all content that exists online about you, monitor and remove your personal information, and even shape your online reputation. Provoked by the need for deleting, energies are directed towards data privacy, online identity management, persistence of digitalia, and a need for active management of online presence. As one

goes about their online learning activities, it seems delete button assemblages may need to enlist more persuasive actors.

The data also highlights how deleting practices are both mobilized by, and become an effect of, information overload. The tsunami of information, contacts, and postings on screens everywhere mobilizes the need for a delete button. What happens when there is so much information that it intimidates rather than informs? Certainly, one implication of information overload is, as Levy (2007) explains: “increasing amounts of time are spent gaining access to and managing information sources, and correspondingly less time is spent absorbing and reflecting” (p. 236). To deal with information overload, the delete button assemblages in this study were translated into erasers and valves, shaping interactions with information and thus, learning possibilities.

Debate around ownership of web data, privacy and security, and the profusion of online information reverberates in this study. And yet, it is timely to ask how the politics of the delete button change as more actors become enrolled to assess, sort, profile, store, mine, and filter information. Or more complex state-of-the-art delete button partnerships become necessary to manage one’s online presence. To Latour (2005), an important—and political—question is whether assemblages are actually liveable. Given how online learning practices are criss-crossed with attempts to manage information overload, I will explore the liveability of deleting assemblages within this framing.

Although technology can be both a contributor to, and tool which mitigates, the problem (Schultze & Vandenbosch, 1998), Himma (2007) questions whether information overload can be solved by a technology solution. Perhaps a kind of spatial re-ordering of other objects and alliances is needed to create a refuge from excessive information. Levy (2007) writes:

[Given] today’s experience of overload and acceleration, the answer would not be to prevent the proliferation of information or to slow down the pace of life across the board ...our aim would rather be to cultivate unhurried activities and quiet places ... practices that encourage alternative [emphasis added] habits and patterns of information production and consumption. (p. 234)

Levy (2007) is urging the cultivation of more contemplative practice and spaces for less frenzied activity. This is one possible re-ordering of deleting practices that could impact online learning practices. Another possibility is offered by Mayer-Schönberger (2009) who advocates reintroducing our capacity to forget; a practice that has become more difficult with digitization. His more “liveable assemblage” is the non-persistence of information and an appreciation that information should have a lifespan.

Such ideas reflect a re-assembly of practices. Different assemblages of information and technology, ones (to use Latour’s 2005 words) that move from mere juxtaposition to a more intertwined form of (liveable) cohabitation, enact a different reality for learning online (p. 40). Exploring alternative ways of producing and using information and considering radical notions such as the non-persistence of digitalia are possible starting points for adult educators and worker-learners to interrupt or assemble learning practices differently—including deleting.

Assembling Networks

Gherardi (2009) writes that performing a practice requires knowing how to align humans and artefacts within a sociotechnical ensemble. In this study it was not just content that was being assessed and possibly deleted but also connections to specific people, technologies, and entire assemblages or practices, which suggests a more sophisticated critical digital fluency. Deleting practices are becoming more complex as the worker-learner engages with issues around privacy, online identity, data security and ownership, insidious surveillance and sophisticated analytics, intellectual property protection, and rampant and often subversive commercialization activities online. Building the digital fluency to deal with all of this is a significant challenge.

In figuring out how to support informal learning practices, adult educators might well ask how they can help adult learners create more robust delete button assemblages that will enhance online pedagogy and prepare people for the increasingly public nature of online presence. This study illustrated that delete button assemblages enacted roles as erasers, valves, screens, and shredders; each of these is a different pattern of relations and therefore, demand different digital fluencies, which seem to be in continual flux and evolution.

Exploring a pervasive everyday practice, such as deleting, affords glimpses into the sociomaterial entanglements energizing enactments of online pedagogy and knowledge production. The delete button mediates relations with

what presses in on screens as well as digital traces left in cyberspace. Constantly negotiating absence and presence, the delete button assemblage mobilizes both digital inclusion and exclusion. Deleting is only one digital practice among many online learning practices and as this paper has illustrated, it is not innocuous. Emphasizing more critical understandings of the co-constitutive and performative relationship between people and web technologies, and how these relations both smooth and complicate work-learning practices online, enables adult educators to keep “matters of concern” open. Questioning whether new human-technology (and other object) assemblages are liveable and identifying new digital fluencies in efforts to enable worker-learners to engage in workable networks is part of the messy work of interruption.

References

- Aanestad, M. (2003). The camera as an actor: Design-in-use of telemedicine infrastructure in surgery. *Computer Supported Cooperative Work*, 12(1), 1-20.
- Brunton, F., & Nissenbaum, H. (2011). Vernacular resistance to data collection and analysis: A political theory of obfuscation. *First Monday* 16 (2). Retrieved from <http://firstmonday.org/>
- Economic & Social Research Council. (2002, March). *Working towards e-quality in networked e-learning in higher education: A manifesto statement for debate*. Retrieved from <http://csalt.lancs.ac.uk/esrc/manifesto.pdf>
- Fenwick, T. & Edwards, R. (2010). *Actor-network theory in education*. London, England: Routledge.
- Geambasu, R., Kohno, T., Levy, A.A., & Levy, H.M. (2009, August). *Vanish: Increasing data privacy with self-destructing data*. Paper presented at USENIX Security Symposium, Montreal, Canada.
- Gherardi, S. (2009). Introduction: The critical power of the ‘practice lens’. *Management Learning*, 40(2), 115–128.
- Harman, G. (2009). *Prince of networks: Bruno Latour and metaphysics*. Melbourne, Australia: re.press.
- Hemetsberger, A., & Reinhardt, C. (2006). Learning and knowledge-building in open-source communities: A social-experiential approach. *Management Learning*, 37(2), 187–214.
- Himma, K. E. (2007). The concept of information overload: A preliminary step in understanding the nature of a harmful information-related condition. *Ethics and Information Technology* 9(4), 259-272.
- Jones, C. R., Ferreday, D., & Hodgson, V. (2008). Networked learning a relational approach: Weak and strong ties. *Journal of Computer Assisted Learning*, 24(2), 90-102.
- Latour, B. (1987). *Science in action: How to follow scientists and engineers through society*. Cambridge, MA: Harvard University Press.
- Latour, B. (1990). Drawing things together. In M. Lynch & S. Woolgar (Eds.), *Representation in scientific practice* (pp. 19-68). Cambridge, MA: The MIT Press.
- Latour, B. (2005). *Reassembling the social: An introduction to actor-network theory*. Oxford, England: Oxford University Press.
- Law, J. (2009a). Actor network theory and material semiotics. In B. S. Turner (Ed.), *The new Blackwell companion to social theory* (pp. 141-158). Chichester, England: Wiley-Blackwell.
- Law, J. (2009b). Collateral realities. Retrieved from <http://heterogeneities.net/publications/Law2009CollateralRealities.pdf>
- Law, J., & Singleton, V. (2005). Object lessons. *Organization*, 12(3), 331-355.
- Levy, D. M. (2007). Information, silence, and sanctuary. *Ethics and Information Technology*, 9(4), 233-236.
- Mayer-Schönberger, V. (2009). *Delete: The virtue of forgetting in the digital age*. Princeton, NJ: Princeton University Press.
- Schultze, U., & Vandenbosch, B. (1998). Information overload in a groupware environment: Now you see, it, now you don't. *Journal of Organizational Computing and Electronic Commerce* 8(2), 127-148.
- Suchman, L. A. (2007). *Human-machine reconfigurations: Plans and situated actions* (2nd ed.). Cambridge, England: Cambridge University Press.
- Thompson, T. L. (in-press a). I'm deleting as fast as I can: Negotiating learning practices in cyberspace. *Pedagogy, Culture & Society*.
- Thompson, T. L. (in-press b). Who's taming who? Tensions between technologies and people in cyberspace communities. In L. Dirckinck-Holmfeld, V. Hodgson, & D. McConnell (Eds.), *Exploring the theory, pedagogy and practice of networked learning*.
- Waltz, S. B. (2006). Nonhumans unbound: Actor-network theory and the reconsideration of “things” in educational foundations. *Educational Foundations*, 20(3/4), 51-68.
- Young, N. (2006). Distance as a hybrid actor in rural economies. *Journal of Rural Studies*, 22(3), 253-266.