

# What's Love Got To Do With IT?<sup>1</sup>

*On ethics and accountability in telling technology stories*

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**Abstract:** Can stories about technology be told as 'love' stories? With the help of 'Zimbabwe Bush Pump', 'Microsoft the Monster', and the 'Beautiful Palimpsest', this paper contemplates the ethics of telling technology stories. Storytellers often take either a neutral or a critical position in their stories about technology. This paper discusses how 'love' can be a different way of talking about 'good' and 'bad' technology and asks how we can establish accountable relationships with technology. In a discussion of the work of philosopher Emmanuel Levinas and feminist technoscientists Donna Haraway and Karen Barad, the author discusses how we become ethical subjects in the way we tell our stories. Objectivity is, from this perspective, not about denying our relationship with technology, but about making our partial connections clear. Reflecting on research on global knowledge sharing, the paper argues that there are no innocent positions from which we can choose our epistemological and ontological perspectives. The use of figurations is explored to help tell the entangled story of the Open Knowledge Network's technology. Palimpsest art is presented as a figuration to map contested knowledges.

## 1. Love lessons

In *The Zimbabwe Bush Pump: Mechanics of a Fluid Technology*, Marianne de Laet and Annemarie Mol introduce the term *love* for articulating their relationship with the water pump they study (2000). 'Love', they argue, may help us to think about new ways of talking about good and bad technology. There are generally two types of relationships possible to what is good or bad, the neutral position and the critical position. Neither position applies to their study of the water pump, the authors argue. The neutral position is one they don't desire because it brings nothing new. The critical position only applies when there are "clear-cut *points of contrast* from which to judge" (p.253). The authors did not compare the pump with other pumps, nor listed the qualities of a good pump. "How to be normative when there is no single, self-evident standpoint to speak from", they ask (ibid). 'Love', then, is the expression of how they have "allowed themselves to be moved by the it", even though they "never set out to pass judgement on the Zimbabwe Bush Pump" (ibid).

In their inspiring technology story, de Laet and Mol take a theoretical perspective that follows in the footsteps of the actor-network approach found in science and technology studies. Actor-network theory or ANT is often used to tell a particular kind of technology story. An early and well-known story is the development of an electric car in France by Michel Callon (1986). In this approach there are many more actors that play a role in the story and, most importantly, both human and non-human actors are

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<sup>1</sup> With apologies to Tina Turner (Wikipedia, 2008a, 2008c).

treated equally in this story. Callon's symmetric storytelling results in a complex account of the electric car project in which the technical, social, economical, and cultural are, and are kept, entangled. Callon argues that we can't separate them from each other. We cannot use technology alone to explain society nor can society on its own explain technology.

Technology stories can be based on a variety of assumptions about technology. In the study of cultural attitudes to technology one can assume that technology is neutral, in order to measure or analyse the influence of a particular technology on its users, even on entire societies. A different assumption, often associated with social determinism, explains technologies as social and cultural products. Leila Green (2001; 2002) argues, for example, that technologies reflect the choices of the elites in our societies. A third perspective, often described as social constructivism, argues that a technology gets its meaning through use. Social constructivists would answer de Laet and Mol's question about a good or bad water pump by looking at who is using the pump or not, how they are using the pump, and for what. Such stories describe the use and role of the pump in a particular setting and argue that a 'good' water pump can thus mean different things in different places. Here it is mainly society that explains technology.

De Laet and Mol actor-network approach belongs to the 'after' version of actor-network theory (Law & Hassard, 1999). The first ANT stories by Callon (1986) and Latour (1987) disregarded actors who behaved in a contradictory manner or who could not be *enrolled* in the actor-network. After-ANT story-telling is not only about the actors that were successfully enrolled in a stabilised network of a technology, it also makes those actors visible that were excluded from enrolment or that resisted the network. Even more importantly, such story-telling shows that the actor-network is not always and everywhere stabilised in the same way. As de Laet and Mol show in the story of the Zimbabwe Bush Pump, technology is not an immutable mobile (Latour, 1987) but a mutable mobile. Its success and durability are not the result of its stability but of its fluidity, the capacity of technology to become or to adapt in order to help achieve whatever is needed (de Laet and Mol, 2000).

Also Donna Haraway critiqued ANT's preference for *strong stories* (Haraway, 1994, 1997) and presented the game of cat's cradle as another actor-network theory, a "less-deadly version for moral discourse, knowledge claims, and critical practice than heroic trials of strength. Tracing networks and configuring agencies/actors/actants in antiracist feminist multicultural studies of technoscience might lead us to places different from those reached by tracing actors and actants through networks in yet another war game" (1994, p.71). Haraway argues that we "cannot afford neutrality about [a technology's] constitution and sustenance" (1994, p.61): it could always have been otherwise.

Just as other science and technology stories, the 'strong' ANT stories were often written from the perspective of *nowhere*. Donna Haraway refers for example to Bruno Latour's ethnographic realist writing style in *Science in Action* (Latour, 1987) as an "intensified commitment to virile modesty" (1997:35). She suggests two possible reasons that can account for this commitment. The first is that "many science studies scholars insufficiently question their basic narratives and tropes" (ibid). They reflect the dominant Western narratives, ignoring important work done in oppositional critical theories based on feminist, post-colonial, and multicultural perspectives. A second reason might be that Latour and many other science and technology studies scholars fail to notice how they, as modest witnesses of scientific practices, are themselves constituted in the technoscience practices they describe.

### 1.1. ACCOUNTABLE RELATIONSHIPS

The situatedness of the researcher is an important issue in feminist technoscience, but this has been made largely invisible in the science and technology stories of both objectivist and relativist science practices. Haraway speaks in this context about “‘god tricks’ promising vision from everywhere and nowhere equally and fully” (1995, p. 182). When we make our situated vision part of our analysis in the study of cultural attitudes towards technology and communication, however, we may create more objective stories. Objectivity, as Haraway argues, is the result of situated knowledges, of embodied, faithful, responsible, and partial accounts (Haraway, 1995). One possible situated vision is presented by de Laet and Mol in the story of the Zimbabwe Bush Pump: “This paper is not critical, but neither is it neutral. For we happen to like, no, even better, to *love* the Zimbabwe Bush Pump in all its many variants” (2000, p. 225). De Laet and Mol love the Zimbabwe Bush Pump because it provides access to clean water. They also love it because the pump teaches them something about the actorship of technologies (p.253). This love is not the result of a judgement of the pump, they argue, but the result of the relationship they established with the pump.

Is it possible to tell situated technology stories as love stories? De Laet and Mol situate themselves as *lovers* in their relationship with the Zimbabwe Bush Pump. They were “moved by it” but argue that this is different from taking a critical or neutral position (2000, p.253). Does denying ones feelings for a technology, the neutral position, result in a lack of being moved by technology? Can we, for example, argue that Robert Boyle, “the father of the experimental way of life” was not moved by his invention of the air pump because he made himself invisible in the description of the scientific experiment (Haraway, 1997)? Being moved is being in a relationship. How one describes oneself in that relationship, as a self-invisible partner denying the relationship, being ‘nowhere’, or as a visible modest partner, acknowledging the relationship, being ‘somewhere’, makes, as Donna Haraway argues, all the difference.

Coming out as a ‘lover’ is making the relationship with technology explicit. We are all moved by the technologies we study, but we express our relationship differently. If we deny being moved by it, as Boyle did, we claim a neutral position. This doesn’t mean that Boyle is not accountable for his relationship, but his accountability has become invisible in the claim of the neutral position. If we don’t deny being moved by it, we take a stand that makes a difference, if we wanted it or not. We can love it a bit or a lot or hate it a bit or a lot. There are countless non-neutral positions, but in each of these positions we acknowledge accountability for our relationship. The question then becomes about how we deal with being accountable? When does our accountability as a scholar start and how do we express this accountability in our methodologies and concepts.

### 1.2. SMALL AND LARGE LOVE STORIES

In *The duration of the present — And the risk of not telling large stories*, Lars Risan addresses the question of accountability in a rethinking of technological determinism, “the belief in the technological inevitability of historical development, and thus, somehow, the inevitability of the future, given a particular technology” (2006). Risan agrees with a common criticism heard in science and technology studies that telling large critical stories creates a collusion between the critic and the advocate of a certain technology, leaving no space for the telling of alternative small stories of resistance and change. Risan wonders, however, if this collusion is always between the advocate and the researcher who relates the large critical story:

One could [...] tell of the fluidity of Windows [Microsoft’s operating system], just as de Laet and Mol have done very nicely about the Zimbabwe Bush Pump (de Laet and Mol

2000). In ways similar to this water pump, Windows have become a global technology not by being an “immutable mobile”, but by being a mutable mobile. Windows is “fluid”: It has been hacked, pirated and tweaked all around the world from Brazil to China. The users of Windows are not, generally, passive victims of an “evil empire”. There are probably times and places where a possible story about the fluidity of Windows would be a Good Thing. But there are probably also places where it would not be a Good Thing. The critical stories of “Microsoft the Monster” have fuelled a productive hacker activism. What would a story about the fluidity of Windows produce? Legitimacy to Microsoft? Who, then, runs the risk of colluding with the Bad Guys? (2006).

‘Colluding with the bad guys’ are those scholars who tell ‘large critical stories’ about a technology and thus enter the same kind of relationship with the technology as the designers or advocates of the technology (Risan, 2006). The only difference is that they ‘fear’ it while the advocates ‘love’ it. Such all-encompassing relationships do not allow for constructive criticism and intervention. Through the example of Microsoft and hacker activism, Risan argues that each version of the technology story, as ‘fluidity’, in the form of many small stories, or as a ‘large critical story’ can be a “Good Thing”. It depends on the time and place of storytelling. Risan alludes here to the possibility of the scholar as an ethical subject when choosing a particular way to tell a technology story.

## 2. Ethical encounters

By foregrounding the accountability of the scholar in the relationship with technology, the scholar is no longer a self-invisible partner, as he or she is now in the position to decide when it is a ‘good’ or a ‘bad’ time and place to tell one technology story or the other. This position is different, I argue, from the one de Laet and Mol argued for in the case of the Zimbabwe Bush Pump. They mention that there was “no single, self-evident standpoint to speak from”. Continuing the analogy, one can say that their ‘love’ *emerged* out of the growing relationship between the scholars and the pump. They are ‘accidental’ lovers of the Zimbabwe Bush Pump. By allowing their relationship with the water pump to become visible, moving from self-invisible to visible partners, de Laet and Mol collude with all the other ‘lovers’ of the pump. As they argue in their paper, the strength of the Zimbabwe Bush Pump lies in its intrinsic fluidity and this strength is detailed in *small stories* of ‘love’. De Laet and Mol’s storytelling does not acknowledge that we are already in relationships with other actors in other networks when we start investigating a water pump or a software programme. Did de Laet and Mol start from ‘nowhere’, when they decided to investigate the Zimbabwe Bush Pump, or did they start from ‘somewhere’, assuming that clean water was a “Good Thing”; that the majority of people in the world think that access to clean water is a fundamental right; and that a pump that gives access to clean water is generally perceived as a ‘good’ pump?

The reasons why we choose to study this technology and not that one, using this methodology and not that one, can be found in ‘love’ stories but more so in stories about accountability. For example, I had just started working on my PhD research project when I wrote my exam paper for a PhD course in science and technology studies. My topic was the World Bank initiative that would gather all development knowledge in one global database, the Development Gateway. Using knowledge management technologies and techniques, this database would enable users around the world to share timely and effective information for development. In my paper I critiqued this initiative for its design that enabled the centralisation of important issues, such as editorial policies and classification. I discussed why a centralised design could affect the rights of already marginalised knowers and knowledges and pointed out that an alternative design was possible and available. I was clear about my preference for this alternative technology.

The course examiner commented, however, that I should not forget that the centralised database could be used differently: the examiner asked me to consider the *fluidity* of this technology. I thought long about this comment. Similar to Risan, I asked myself who would benefit from describing the fluidity of the Development Gateway. That question developed into one that moved me beyond the usual understanding of research ethics: Even if my contribution to science is very small, for whom or for what should it make a difference?

## 2.1. THE RESEARCHER AS ETHICAL SUBJECT

Through the work of philosopher Emmanuel Levinas I started to find the beginning of an ethical position from which to seek an answer to this question. Levinas wrote: “Proximity, difference which is non-indifference, is responsibility” (Levinas, 1981, p. 139). For Levinas, the face of the ‘other’, through being different, sets the limitations of the ‘I’; it makes the ‘I’ responsible for the ‘other’. Levinas calls this love, but in this case a “love in which the ethical aspect dominates the passionate aspect” (1998, p. 88). It is in this love, in this “responsibility for the other that justice appears, which calls for judgement and comparison, a comparison of what is in principle incomparable, for every being is unique, every other is unique” (p.89). Levinas’ idea of objectivity is based on this idea of justice and equity derived from responsibility. At a certain moment, says Levinas, we need to judge and compare unique others. It is the “wisdom of love” that will guide us, “justice comes from love” (p.89-92).

In *Infinitely Demanding: Ethics of Commitment, Politics of Resistance*, Simon Critchley discusses how Levinas understands *the ethical subject* in the relationship with the ‘other’ (2007). From a ‘godlike’ perspective located outside the relationship, this relationship can appear as one based on equality. Within the relationship, the “subject relates itself to something that exceeds its relational capacity” (p.57). ‘I’ am never able to adequately fulfil the demand the ‘other’ makes on me: we are therefore never equal. This is because the self is shaped through this relationship with whatever it has determined as its ‘good’ (some possible examples of the ‘good’ that Critchley mentions are prophets, holy books, moral law, one’s community, world peace). The self has to approve the demand of the ‘good’ as a demand. The ethical self is, however, never able to fulfil the demand of its ‘good’. Critchley gives the simple example of a ‘good’ that includes non-smoking. Critchley presents an ex-smoker who, after a good meal with friends, accepts a cigarette and enjoys the smoking. He describes the guilt feelings of the ex-smoker the day after as the conflict between the ethical self that I have chosen to be and the self that I am (p.22). Levinas shows that the ethical self is not an aspect of the experiencing self, but “rather the fundamental feature of what we think of as a self, the repository of our deepest commitments and values” (Critchley, 2007, p.23). Our [ethical] self is a split subject, “constitutively *split* between itself and a demand [its version of the good] it [wants but] cannot meet, but which is that by virtue of which it becomes a subject” (p. 62-63).

Reading Levinas through the work of physicist Karen Barad, I was able to find the place and role of ethics in my own research project (2007). Barad writes:

The point is not merely that there is a web of causal relations that we are implicated in and that there are consequences to our actions. We are a much more intimate part of the universe than any such statement implies. If what is implied by ‘consequences’ is a chain of events that follow one upon the next, the effects of our actions rippling outward from their point of origin well after a given action is completed, then to say that there are consequences to our actions is to miss the full extent of the interconnectedness of being. [...] There is no discrete ‘I’ that precedes its actions. Our (intra)actions matter — each one reconfigures the world in its becoming, they become us (p. 394).

Barad refers to doing justice in terms of mattering: accountability and responsibility is about who and what matters or has been excluded from mattering in technology stories. Haraway describes the perspective of the scholar who tells such accountable stories as a partial perspective that is, similarly to Levinas, necessarily based on “a split and contradictory self” (1995, p. 183). Splitting, not being, Haraway argues, produces the preferred critical position of the researcher. As in the case of Levinas’ ‘I’, Haraway’s ‘self’ does not precede the other. “The knowing self is always constructed and stitched together imperfectly, and therefore able to join with another, to see together without claiming to be another. Here is the promise of objectivity: a scientific knower seeks the subject position, not of identity, but of objectivity, that is, partial connection” (p.183). In this “situated partial connection” of “seeing together without claiming to be the other” the ‘I’ and the ‘other’ emerge as well as a space for critical dialogue between them.<sup>2</sup> For example, in *Companion Species Manifesto*, Haraway develops such a critical dialogue not by starting from nowhere, but by expressing her passionate love for dogs (2003). Objectivity, as partial connection, is about relations of significant otherness and how we, in our otherness, as humans, dogs, and other species, can build a livable world (ibid).

In the encounter with the other, in the “situated partial connection”, decisions of justice, of whom and what is included or excluded, are made. Epistemological and ontological issues, such as the question about what kind of technology story to tell, as a ‘large critical story’, a ‘strong story’, or a ‘fluidity’ of small stories, are therefore preceded by the ethical issue of who and what matters.

### 3. Mapping contestable worlds

In my research I have chosen to tell the story of the Open Knowledge Network, which has a very different technological design than the World Bank’s Development Gateway. My main challenge is *how* to tell the story of the Open Knowledge Network. It is possible to tell the story of the Open Knowledge Network (OKN) in the same manner as the Zimbabwe Bush Pump. Similar to de Laet and Mol’s pump story, the Open Knowledge Network is “not well-bounded but entangled, in terms of both its performance and its nature, in a variety of worlds” (2000, p. 227). This in itself results in a complex story about global technology and local knowledge sharing. But there is an important difference. De Laet and Mol do not tell us in their article *why* they decided to tell the story of this particular pump and not others. Consequently, their ‘love’ for this pump seems to emerge as unrelated to whatever they knew about the role and qualities of water pumps or clean water or development or technology before they started their investigation. For my part, I can’t deny that my choice to focus on the OKN is related to what I already know, lovingly or not, about other ICT-based knowledge sharing initiatives. Secondly, I see the story of the OKN as entangled in the issue of *cognitive justice*, the equal treatment of the different ways of knowing and being in the world (Visvanathan, 2007).

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<sup>2</sup> Barad and Haraway argue that the ‘other’ is not necessarily human, but it is doubtful that Levinas was willing to come to that conclusion. Interestingly, both Haraway (2003) and Levinas (2004) tell ‘dog stories’ to discuss how the boundaries between human and nonhuman emerge in the “situated partial connection” or in the meeting with the ‘face’ of the ‘other’. In Levinas’ ethics, the face of the ‘other’ is generally perceived as a human face. In his story about Bobby, the dog he met as a Jewish prisoner of war in Nazi Germany, he contemplates the face of the ‘other’ as the face of an animal, such as a dog, because it was Bobby the dog who would acknowledge Levinas and his fellow prisoners as human beings (2004, p. 49).

I turned to Donna Haraway, an accomplished narrator of entangled science and technology stories, who often lets figurations do the acting:

Figuration is about resetting the stage for possible pasts and futures. Figuration is the mode of theory when the more 'normal' rhetorics of systematic critical analysis seem only to repeat and sustain our entrapment in the stories of established disorders. Humanity is a modernist figure; and this humanity has a generic face, a universal shape. Humanity's face has been the face of man. Feminist humanity must have another shape, other gestures; but, I believe, we must have feminist figures of humanity. They cannot be man or woman; they cannot be the human as historical narrative has staged that generic universal. Feminist figures cannot, finally, have a name; they cannot be native. Feminist humanity must, somehow, both resist representation, resist literal figuration, and still erupt in powerful new tropes, new figures of speech, new turns of historical possibility (2004, p. 47).

Most importantly, Haraway argues, these "[f]igures must involve at least some kind of displacement that can trouble identifications and certainties" (1997, p. 11).

Haraway's most known figuration is that of the *cyborg*. Her cyborg visualises the hybrid, the human/nonhuman figure that allows us to imagine new ways of thinking about bodies and technologies<sup>3</sup>. Haraway sees nature as a tangle of materialized figurations (1994, p.60). In nature she finds her domain of technoscience to be "a practice of materializing refigurations of what counts as nature" (...) "how we figure technoscience", she argues, "makes an immense difference" (p.60). As mentioned above, Haraway chose the game of cat's cradle to refigure technoscience. Her most basic string figure consists of three knots: 1) cultural studies; 2) feminist, multicultural, antiracist science projects; and 3) science studies. She invites others to pick up her patterns and invent new knots and different figures "that will make us swerve from the established disorder of finished, deadly worlds" (p.65).

In *Modest\_Witness@Second\_Millennium.FemaleMan@\_Meets\_OncoMouse™*, Haraway describes figurations as "performative images that can be inhabited. Verbal or visual, figurations are condensed maps of contestable worlds" (2007, p.11). Figurations help us to describe and map difference, not as modest witness but as the refigured "mutated witness who plays cat cradle's games" (p.269):

The kind of modest witness that [...] insists on an actor network theory that traces the stakes, alliances, and action of a much-enhanced array of constituents and producers of what may count as fact. It is a kind of witness that insists on its situatedness, where location is itself always a complex construction as well as inheritance, and that casts its lot with the projects and needs of those who could not or would not inhabit the subject positions of the self-invisible and the discursive sites, the 'laboratories' of the credible, civil man of science. (p.270).

In my research into the Open Knowledge Network I initially started "tracing the stakes, alliances, and action" of a wide variety of human and non-human actors by following knowledge as a non-human actor (Hanseth, 2004). I started in London, Britain, and continued to Chennai, Delhi, Embalam, and Kunichempet, in India; and to Nairobi, Isinya, and Enkirgirri, in Kenya. Halfway into the research I realised that if I wanted to make a difference - not to describe or mirror reality as a self-invisible modest witness -

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<sup>3</sup> In *Companion Species Manifesto: Dogs, People, and Significant Otherness*, Haraway writes that by "the end of the millennium, cyborgs could no longer do the work of a proper herding dog to gather up the threads needed for critical inquiry. So I go happily to the dogs to explore the birth of the kennel to help craft tools for science studies and feminist theory in the present time [...]"(2003, pp. 4-5). Dogs matter, Haraway argues, "they are not here to think with. They are here to live with" (ibid). "'Communication' across irreducible differences is what matters. Situated partial connection is what matters; the resultant dogs and humans emerge together in that game of cat's cradle. Respect is the name of the game" (p. 49).

and be accountable to the world, I had to visualise my tracks in my research. I needed a kind of map.

### 3.1. PALIMPSEST ART AS KNOWLEDGE MAP

My first maps consisted of webs of words connected with lines. The longer I looked at the words and lines, the more relations I discovered between people and things, the actors that play a role in my story, and finally all actors were connected with each other. This didn't seem helpful since all I had done was to establish a "web of causal relations" (Barad, 2007, p. 394). I then created a kind of layering in my map, which enabled some new perspectives (historical, location) without breaking up the map into different maps (i.e. social, technological, economical, cultural maps). This perspective showed me, unlike most maps, how actors 'overlap', they can play different roles and play them at the same time, they influence each other, and they occupy different times and spaces at the same time. But by now I had a hard time visualising how to use my map for tracing actors and mapping my tracks. I had arrived at a stage in my research in which I felt I had lost my 'storyline'.

Around the same time I came across an unpublished and undated paper by Geoffrey Bowker, which has become part, in modified form, of his book *Memory Practices in the Sciences* (Bowker, 2005). In the paper Bowker presented a small black and white picture of an artwork by Australian artists Tracey Andrews and Lyn Moore. Bowker wrote:

In this image of the North Balranald Region, Aboriginal artist Tracey Andrews has traced images of the 'dreamtime' (the aboriginal sacred space which is both physical environment and home of the ancestors) onto a Landsat image of the region. For me, Andrews' work speaks to the problem of knowledge in the university. Knowledge which matters has to be knowledge which is open to its own historicity and spatiality, and open to alternative ontologies. In this age of renewed fundamentalisms of all stripes – religious and scientific – the crucial task for the University is to provide a playground. In classic liberal discourse, this is a neutral playground – free of ideology, will and power. In the nineteenth century, laissez faire economics was supported by Britain, the dominant imperial power, since a 'fair' economic arena with no government intervention would favor them every time. Similarly, 'fair' admission of all forms of knowledge to the playground constructed by Western science guarantees victory for the dominant ideology of science. I believe that our task now is to challenge the imperializing vision of the neutral playground governed by rational choice. We must create spaces in which the rules of the playground are visible and negotiable, and wherein myriad ways of seeing, reading and knowing can bloom (Bowker, n.d.)

What I saw in the accompanying picture was the visualisation of my kind of map. I searched the internet for information on this artwork and found out that this artwork was part of a presentation in an exhibition in 2001 (Moore & Andrews, 2001).

The title of the exhibition was *Palimpsest*, referring to the way the landscape is constantly altered. Australian artists Tracey Andrews and Lyn Moore named their presentation *Mungo in the Backblocks* (Backblocks refers to Australia's bushy interior country). Lake Mungo is the site of the earliest known human presence on the Australian continent, recently dated back in time to approximately 68,000 year (Andrews & Moore, 2001). Moore and Andrews write:

Mungo's cultural heritage is indeed a rich palimpsest. The Latin word *palimpsestus* from the Greek word *palimpsestos* translates as 'scraped again'. In this sense we tried to engage with the potent layering, the ancient, colonial and contemporary histories, the multiplicity of meanings and the immense cultural significance of the site. [...] As part of our journeying, we researched the many ways the area has been mapped, from early colonial maps, geological survey maps, tourist maps, salinity maps, anthropological maps, and



agricultural maps to the very latest satellite imaging. We conceptually linked contemporary satellite tracking of the region with the earliest known human presence on this continent through our usage of Landsat 7 ETM satellite data acquired January 2000. To celebrate this extraordinary presence Tracey drew Ancestor tracks across the satellite images. The Ancestor tracks range over the satellite data celebrating ancient tribal lands and a profound Aboriginal presence on this continent. In the art installation we juxtaposed these images with an early colonial map of 1835, showing the progress of 'discovery', the explorer's tracks. For us, this alluded to the irony of the colonial 'discovery' of this land (Moore & Andrews, 2001).

Andrews and Moore's artworks enabled me to develop the notion of palimpsest as a figuration that metaphorically frames my tracing of "stakes, alliances, and action of actors" in my research and that gathers the marks I leave behind. The palimpsest figuration enables an historical and cultural mapping of the people, organisations, and technologies that make up my network. It allows me to cross boundaries of time, space, and categories; and rearrange 'order' and linearity. It allowed me to make a difference.

### 3.2. TRACKING TECHNOLOGY STORIES

The palimpsest figuration is especially helpful in thinking through the issue of the production of non-existence, i.e. that what cannot be imagined in the frame of a particular technology (van der Velden, 2007). Rearranging the layers of the palimpsest or focusing on how the remnants of previous layers are part of the current layer enables alternative accounts that are currently invisible. Helen Verran describes such work of the palimpsest as doing ontics, making something visible that was not there before (Verran, 2005).

Rosi Braidotti describes the work of figurations as being both a mode of differentiation and a mode of production: it provides a different way of looking at something while at the same time producing alternative accounts (1994). As Moore and Andrew write, there are many narratives covering the same area. Their palimpsest art becomes a knowledge space in which different ways of knowing are mapped. In a similar way I understand the palimpsest as a metaphoric frame in which I map my tracks through the stories and layers of the Open Knowledge Network. My knowledge map emerges from my travels between times, places, people, and things. When I reflect on my use of the palimpsest figuration, I realise that my knowledge map consists of several stories covering the same type of technology. The knowledge I acquired in the relationships I established with the technologies of the Development Gateway, Indymedia, the TAMI Aboriginal Database, several web directories and portals, the Brian Deer Classification, peer-to-peer technology, and free open source softwares, makes it possible to judge the Open Knowledge Network, that is, to provide suggestions for improvement.

Judgement, as Levinas argues, is based on the wisdom of love, not the love of wisdom (1998). In my responsibility for the 'other' lies simultaneously the responsibility for the other 'others'. There is no social, economic, or political system, an absolute 'Good', that can release me from this ethical responsibility (Burggraeve, 2007). What Risan called 'a Good Thing' (2006) is in Levinas' words a "small goodness" and is "about a modest, partial goodness, with no pretensions of solving everything once and for all and thus creating paradise on earth. It does what it can with full enthusiasm and dedication, without wanting to get everything in its grasp" (Burggraeve, 2007, p. 47). Similar to de Laet and Mol, I argue that there is no absolute or universal good or bad technology. I part with them, however, on their point of view that there is "no single, self-evident standpoint to speak from" (2000, p. 253). I argue, with help from Levinas, Haraway, and Barad, that, as a scholar, I always have my own standpoint from which I speak. I am, as the "mutated modest witness", accountable for my "modest, partial

goodness” towards the ‘others’. My ethical subjectivity emerges from meeting the ‘others’, an encounter in which my infinite responsibility towards injustice arises. This responsibility makes me accountable for which technology stories I tell and how I tell them.

#### **4. Conclusions**

In this essay I briefly discussed different approaches to telling technology stories. I focused on the stories told by different actor-network theories, which all argue that the social and technical are entangled: there are no well-defined or pre-existing boundaries between them. Such technology stories are complex and defy a linear storyline.

By reading Risan’s story of ‘Microsoft the Monster’ and hacker activism (2006) through de Laet and Mol’s story of the Zimbabwe Bush Pump (2000), I was able to foreground and question the perspective of the storyteller, the scholar who selects and tells technology stories: Why do we decide to tell a technology story in a particular way? When do we collude with the ‘bad guys’? What is a ‘good’ technology story? While de Laet and Mol argued that the perspective of the storyteller emerges in the telling of the story, Risan argues that there is a ‘good’ time and place for each story. By bringing in the ‘good’, but not as an absolute or universal ‘good’, Risan alludes to the storyteller as an ethical subject.

Both feminist technoscience scholar Haraway and philosopher Levinas argue that the ethical subject is a split subject. It is in the responsibility for the other(s) and in the partial connection with the other(s), that we emerge as ethical subjects. Levinas argues that the ethical subject that we have chosen to be precedes ‘being’, the self that I am; my ethical position precedes and constitutes my epistemological and ontological positions.

In my own research it was my commitment to cognitive justice that encouraged my storytelling, but I got lost in the multiple entanglements. Beautiful art in the form of Aboriginal Ancestor tracks over a satellite image visualised the possible mappings of contested worlds. Guided by Haraway’s use of figuration, I discuss how I use the palimpsest figuration to tell a technology story that is moved by cognitive justice and a commitment to making a difference in the world.

#### **Epilogue**

While writing this paper, I received news from Jonathan, one of my main informants in Kenya. During my second trip to Kenya we worked and traveled together in Enkirgirri, the Maasai rangeland in southern Kenya. I had brought my second son with me on this trip and met Jonathan’s family at their Maasai homestead. Jonathan told me that his second son was born on January the 10<sup>th</sup>, 2008 and that he and his wife have decided to name their newborn baby after my son. Jonathan’s news confirms that we always speak from somewhere, when we begin telling our story, but that we don’t know where we will be when we finish the story.

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## References

- Andrews, T., & Moore, L. (2001). Satellite imagery as art. *Acres Update*(24), 8-9.
- Barad, K. (2007). *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. Durham: Duke University Press.
- Bowker, G. C. (2005). *Memory Practices in the Sciences*. Cambridge: Massachusetts Institute of Technology.
- Bowker, G. C. (n.d.). Keeping Knowledge Local. Retrieved 3 January 2008, from <http://epl.scu.edu:16080/~gbowker/localk.pdf>
- Braidotti, R. (1994). *Nomadic Subjects: Embodiment and sexual difference in contemporary feminist theory*. New York: Columbia University Press.
- Burggraave, R. (2007). The meaning of knowledge in the service of justice. In D. G. Aasland (Ed.), *The Ethical Condition of Knowledge* (pp. 27-51). Kristiansand: Høgskolen i Asker.
- Callon, M. (1986). The Sociology of an Actor-Network: The Case of the Electric Vehicle. In M. Callon, J. Law & A. Rips (Eds.), *Mapping the Dynamics of Science and Technology* (pp. 19-34). Basingstoke: Macmillan.
- Critchley, S. (2007). *Infinitely Demanding: Ethics of Commitment, Politics of Resistance*. London: Verso.
- de Laet, M., & Mol, A. (2000). The Zimbabwe Bush Pump: Mechanics of a Fluid technology. *Social Studies of Science*, 30(2), 225-263.
- Feenberg, A. (2002). *Transforming Technology: A Critical Theory Revisited*. Oxford: Oxford University Press.
- Green, L. (2001). *Communication, Technology, and Society*. London: Sage Publications.
- Green, L. (2002). *Technoculture: From Alphabet to Cybersex*. Crows Nest, N.S.W.: Allen & Unwin.
- Hanseth, O. (2004). Knowledge as infrastructure. In C. Avgerou, C. Ciborra & F. Land (Eds.), *The Social Study of Information and Communication Technology*. Oxford: Oxford University Press.
- Haraway, D. (1994). A game of cat's cradle: Science studies, feminist theory, cultural studies. *Configurations* (1), 59-71.
- Haraway, D. (1995). Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective. In A. Feenberg & A. Hannay (Eds.), *Technology & the Politics of Knowledge*. Bloomington: Indiana University Press.
- Haraway, D. (1997). *Modest\_Witness@Second\_Millennium.FemaleMan©\_Meets\_Oncomouse™*. New York: Routledge.
- Haraway, D. (2003). *The Companion Species Manifesto: Dogs, People, and Significant Otherness*. Chicago: Prickly Paradigm Press.
- Haraway, D. (2004). *The Haraway Reader*. New York: Routledge.
- Latour, B. (1987). *Science in Action*. Cambridge: Harvard University Press.
- Law, J., & Hassard, J. (Eds.). (1999). *Actor Network Theory and After*. Oxford: Blackwell.
- Levinas, E. (1981). *Otherwise than Being or Beyond Essence*. Dordrecht: Kluwer.
- Levinas, E. (1998). *Entre Nous: Thinking-of-the-Other*. London: Continuum.
- Levinas, E. (2004). The Name of a Dog, or Natural Rights. In M. Calarco & P. Atterton (Eds.), *Animal Philosophy: Essential Readings in Contentual Thought* (pp. 47-50). London: Continuum.
- Moore, L., & Andrews, T. (2001). Ancestor tracks through art. Retrieved 30 September 2005, from <http://www.icomos.org/australia/Tracks/30a%20Moore%20%20Andrews,%20Ancestor%20tracks.pdf>
- Risan, L. (2006). The duration of the present - And the risk of not telling large stories. Retrieved 7 December 2007, from [http://www.tik.uio.no/natureculture/papers/The\\_duration\\_of\\_the\\_present\\_v\\_0.21\\_web.pdf](http://www.tik.uio.no/natureculture/papers/The_duration_of_the_present_v_0.21_web.pdf)

- van der Velden, Maja. (2007). Invisibility and the ethics of digitalization: Designing so as not to hurt others. In S. Hongladarom & C. Ess (Eds.), *Information Technology Ethics: Cultural Perspectives* (pp. 81-93). London: Idea Group Reference.
- Verran, H. (2005). Personal communication per email, 21 November 2005.
- Visvanathan, Shiv. (2007). Knowledge, justice and democracy In M. Leach, I. Scoones & B. Wynne (Eds.), *Science and Citizens* (pp. 83-94). London: Zed Books.
- Wikipedia. (2008a). Tina Turner. Retrieved 3 January 2008, from [http://en.wikipedia.org/wiki/Tina\\_Turner](http://en.wikipedia.org/wiki/Tina_Turner)
- Wikipedia. (2008c). What's love got to do with it? Retrieved 3 January 2008, from [http://en.wikipedia.org/wiki/What%27s\\_Love\\_Got\\_To\\_Do\\_With\\_It](http://en.wikipedia.org/wiki/What%27s_Love_Got_To_Do_With_It)