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**Mads Bødker and Alan Chamberlain**

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# AFFECT THEORY AND AUTOETHNOGRAPHY IN ORDINARY INFORMATION SYSTEMS

*Research*

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## **Abstract**

*This paper uses philosophical theories of affect as a lens for exploring autoethnographic renderings of everyday experience with information technology. Affect theories, in the paper, denote a broad trend in post-humanistic philosophy that explores sensation and feeling as emergent and relational pre-cognitive forces that impinge on a body and its capacity to act. A necessarily truncated account of affect theory, and three autoethnographic vignettes are presented to complement the philosophical exposition and to provide reflections on possible empirical tactics for affective research in IS. Inspired by the challenges to IS reflected in Yoo's notion of Experiential Computing, the paper contributes with examples of how everyday attentiveness to the senses can unveil new forms of embodiment related to 'living with technology'. It suggests that feelings (both sensory visceral as well as more generalized moods) emerge out of intimate embodied entanglement with ubiquitous computing technologies infrastructures.*

*Keywords: affect, autoethnography, philosophy, experience*

# 1 Introduction

This paper contributes to a style of working autoethnographically that has recently been discussed in IS. Concurrently, it attempts to introduce philosophical affect theory as a lens through which such autoethnographic and ‘everyday research’ (Brinkmann, 2012) can be reflected upon. It banks on an emerging interest in ‘alternative genres’ (e.g. the ECIS 2014 track as well as a special issue of the European Journal of IS, forthcoming), and engages with a broadly ‘post-human’ philosophical agenda in understanding aspects of how sensing, experiencing, and feeling bodies are constituted in ordinary world of ubiquitous computing. We thus do not invoke particular ‘use situations’ (be they organizational or personal) of IT, but are more concerned with broader implications of ‘living with’ IT.

First, the paper suggests that affect theories as developed within a particular strand of 20<sup>th</sup> century philosophies might lend a new sensibility to the concept of ‘experience with IT’ beyond mentioned ‘use’ perspective. Following the call for autobiographical ethnographic research by O Riordan (2014), the paper suggests that autoethnographic renderings of mundane socio-technical worlds are apt to elicit new perspectives of digitally mediated experiences and, that taken together, affect theory and autoethnography afford new entry points for understanding experience in IS.

Where O Riordan seems to prioritize work on online virtual worlds, not unlike the extensive work on e.g. Massive Multiplayer Online Role Playing Games and other game worlds, see Nardi (2010), the current paper suggests that autoethnography can usefully expand Yoo’s concept of Experiential Computing (2010) to allow for a broader concern with and exploration of mundane ‘being’ in a world of ubiquitous, pervasive computing. By viewing our own autoethnographic work, which we suggest is a form of vulnerable, reflective and vigilant ‘everyday research’ (Brinkmann, 2012), through the lens of affect theory, we attempt to provide evocative and ‘alive’ accounts of concrete ‘forms of life’ and otherwise hard-to-capture affective embodiment in the context of experiential computing. In doing so, the paper tries to challenge standard accounts of emotions and emotionality in IS that typically emphasize ‘feeling’ in its culturally narrated form; labelled, expressed and analysed in culturally appropriate ways. Following a particular philosophical incarnation of affect theory, we instead suggest that ‘feelings’ – before they become manifest as emotional narratives or expressions to be ‘read’ or invoked through an interpretation of data – have fluid, precarious, and mobile forms that can register in bodies as trauma, surges of pleasure, visceral shock, embarrassment, pains, moods, tones, resonance, ‘gut feelings’, incontrollable laughter and so on. As Latour argues, the relation of affect to the body is one of compulsion and one of life itself: “to have a body *is to learn to be affected*, meaning ‘effectuated’, moved, put into motion by other entities, humans or non-humans” (Latour 2004, 205, italics in original). Affect theories thus provide an alternative account of human-technology entanglement and materiality, suggesting that technologies are not merely entangled in human reasoning, deliberate practices, or discourses, but constitute a force that registers in corporeal and pre-cognitive ways.

In terms of informing IS philosophies and methods, the paper suggests how attentive and vulnerable forms of ‘everyday research’ conducted with an autoethnographic sensibility creates spaces for new understandings of everyday experiential aspects of IS. Vigilant everyday observation, close (auto)-ethnographic detail, a vulnerable positions of self reflections and disclosure and evocative story-telling are tools that transform writing *about* a technological phenomenon (in terms of assembling evidence or complying with an interpretational scheme) to potentially become a method of writing from *within* affectively textured, lived realities of everyday life with technology. We argue that we can engage with Experiential Computing as a particular structure of *felt* experiences (Williams, 1977) – experiences that might involve episodes of trauma pleasure, excitement, beauty, but equally pain, shock, rage, or confusion that precedes articulation, interpretation, and narrative. Recent work in the field of cultural anthropology and sociology shows an increasing interest in the senses, seeing bodies as intimately and affectively entangled with a material world before conscious relations are expressed or articulated in the form of conscious emotions (e.g. Steward, 1996, 2007, Blackman, 2012). In traditional scholarly renderings, entanglements like these are difficult to represent since they are ephemeral-

al, mobile and precarious and do not lend themselves well to conventional scholarly treatments. Like Stewart, then, our work is "[c]ommitted not to demystification and uncovered truths that support a well-known picture of the world but to speculation, curiosity and the concrete [...] it tries to provoke attention to the forces that come into view as habit or shock, resonance or impact" (2007; 2). We thus ask, tentatively, what moods, what kinds of corporeal felt-ness or, to borrow a useful phrase from Williams (1977), what "structures of feelings" are circulating in a world of ubiquitous computing? Writing the autoethnographic vignettes in the current paper, essentially autobiographical notes akin to the 'ethnographic vignette' (Orr, 1996), we take a cue from ethnographic poetics developed in the works of Stewart (1996, 2007) and to some extent Taussig (1993). Trailing some aspects of these works, this paper presents 3 short autoethnographic vignettes. The truncated style of the vignette is chosen to provide some space for analytical scope, drawing on affect theory as an 'experimental' lens. The vignettes take outset in headaches and the fear of Electro Magnetic Radiation ("Hertzian space"), uncooperative computers and the embodied sublimation of frustration ("Rage Games"), and phantom vibrations from smartphones ("Vibration Matters").

## 1.1 Experiential perspectives on IS

Like Yoo (2010), our work originates in a curiosity about what it feels like to live with ubiquitous computing. With the term 'Experiential Computing', Yoo has provided a programmatic suggestion that there is more to the ubiquity of computing technologies than organizational, managerial, or even 'use' challenges and opportunities typically pursued in IS research. Critiquing the almost exclusive focus on IT in organizations in his proposal for a renewed focus on what he terms 'experiential computing' (2010, henceforth EC), Yoo suggests that IS should shift towards a focus on the ways in which increasingly digital and connected everyday products, services, and infrastructures permeate everyday lives. In place of the meso-level perspectives afforded by the dominant organizational registers typically adhered to in IS, Yoo argues that IS must begin to better grasp "digitally mediated embodied experiences in everyday activities through everyday artifacts that have embedded computing capabilities" (Yoo, 2010, 1), and accordingly, that IS should dedicate its efforts to build a "new domain of research on computing in everyday life experiences" (ibid, 2). Yoo's perspectives provide an opportunity to investigate IS issues beyond 'use'. To support a more holistic comprehension of what 'living with ubiquitous IT' means, entails that we go beyond circumscribed 'use' of IT to understand the mundane and often subtle yet forceful ways in which worlds pervaded with IT might register on the ways we think, act, and feel.

Recent philosophical efforts "have called for a reconceptualization of the body as a subject, experienced from within rather than from without, arguing for the recognition ("re-cognition") of the fact that the human body is the grounds from which one needs to explore experience" (Bhatt 2013; 7). Works in IS have emphasized a need to account for experiential aspects of organizational IS use (Ciborra 2004, 2006, Stein & Galliers 2011, Stein et al. 2014, Nandhakumar et al. 2013), however, there has been only a limited turn to 'the body' in IS (with the exception of e.g. Schultze, 2010, Schultze & Leahy, 2009) to support explorations of corporeal experiences and the senses within IS. We find it important to avoid surrendering EC exclusively to potentially dis-embodied forms of research. These are the forms that, as Ciborra warns, keeps "the heart [...] out of our head" and consistently "bend to the dictates of the scientific method: they strive to keep the observer separate from the situation to be studied" (Ciborra 2006, 138). Quoting Guignon, Ciborra adds that in doing so "the self comes to appear as a detached spectator making observations – one item among others in the space-time coordinate system... The world is 'dis-worlded' and the stream of life is robbed of its character as living... it gives us a misleading picture of reality and our own selves" (Guignon, 2002: 86 in Ciborra 2006, 138).

In this paper, we argue that an effort towards Experiential Computing in IS can usefully be accompanied by a commitment to the affective, experiential 'body' and embodiment – the experience of having a body that acts on the world and that is acted upon by a variety of forces in the world. We thus explicitly focus on how the ubiquity of computing technologies may register in different ways on and *in* the

body. The theoretical underpinnings for this approach to embodiment derives from a particular set of theories of affect developed within philosophy (e.g. Massumi, 2002), human geography (Thrift, 2004, 2008) and anthropology (Stewart 1996, 2007). In the next section we will provide a necessarily truncated unpacking of affect theory derived from the humanities and social anthropology, and begin to relate it to IS and the Experiential Computing agenda.

## 1.2 Affect theories

The paper attempts to use affect theory as a philosophical and reflective lens with which to elaborate on how pre-conscious, embodied ‘feeling’ gives shape to experiences. We emphasize the role of the body in experiencing a world of ubiquitous computing. With some notable exceptions that look at IT use and issues of corporeality and affect from a holistic perspective (Stein & Galliers 2011, Stein et al. 2014), affect is rarely treated in IS other than as a moderator for decision making processes. In IS, Sun et al. (2006) have attempted an overview of the concept of affect in IS and Human-Computer Interaction (HCI), mainly drawing on the AIS archive. From a HCI perspective, they emphasize the way in which affect (which they roughly translate as ‘mood’ or feeling) is a concept that aids in “explaining a significant amount of variance in users’ behavior” (Sun et al. 2006: 296). Throughout the paper, Sun et al. champion a standard psychological view of affect as pre-cognitive stimulus that functions below that of expressed emotion. Support for this view is provided in the work by Deng and Poole (2010), Yin et al. (2014), as well as in Beaudry and Pinsonneault (2010). Elsewhere, a ground work that resonates with these interpretations of affect and emotions can be found in for example Damasio’s popular work (1999) where affect figures as the antecedent of conscious decision-making – gut feelings, instinct, or the feeling of having a 6<sup>th</sup> sense.

While these versions of affect can be useful in providing nuances to models of rationality and meaning making that emphasize purely cognitive-, information processing-, and largely disembodied aspects of decision making, affect theories are realized quite differently if one follows a theoretical tradition derived from philosophy and humanities and increasingly in the social sciences and anthropology. For the past decades a particular discourse on agency has emerged that is committed to Spinoza’s *monistic* ontology (as opposed to *dualistic*, pertaining to the Cartesian mind-body distinction that dominates Western philosophies) as well as Bergsonian-Deleuzian readings of Spinoza’s notion of affect. Following a largely post-human readings of the notion of affect in line with Massumi (e.g. 2002, see also Thrift 2004, Seigworth and Gregg, 2010) and others – readings that de-centers and distribute the traditionally stable idea of identity and the human as a stable category – we understand affect as forces or *intensities of feeling* that shape embodied capacities to act. Such forces reside outside of reflective consciousness and outside of extrinsic forms of power, signification and meaning, in the sense that it is hard – if not impossible – to render such moods/intensities into verbal or textual meaning. Affect, on this reading, is a pervasive force or current of encounters within and between bodies and things that ‘modifies’ or ‘does something’ to the body and its capacity to act, fundamentally muddling the material, the social and the embodied. On a reading of Spinoza, Thrift argues that “the property of the active outcome of an encounter, takes the form of an increase or decrease in the ability of the body and mind alike to act, which can be positive – and thus increase that ability (counting as ‘joyful’ or euphoric) – or negative – and thus diminish that ability (counting as ‘sorrowful’ or dysphoric)” (Thrift, 2004: 62).

In this understanding “individuals are generally understood as *effects* of the events to which their body parts (broadly understood) respond and in which they participate” (Thrift, 2004: 60, our emphasis), a position that is similarly found in Latour’s (2004) writing on the body. Noting that through affective embodiment, i.e. moods and feelings constantly sensed by the human sensorium in and through the body, the argument that “individuals are *effects* of events” should sensitize us to the emergent character of what we sometimes call the individual; essentially that human ‘being’ and the experience of being is an outcome of a *porousness* of the body. Unlike the Cartesian mind and ensuing necessity to *think* life into being, Spinozan bodies are fundamentally permeable and interactive with (equivalent) properties of other bodies, minds and things. The body, through things, discourses, moods, politics, is

formed and comes into being. In an affect theory frame, materials are not ‘meaningful’ objects. They are not, for the scholar, objects *out there* to be read, interpreted, or rationalized. Hearing the echo of a Spinozan ‘monism’, the proposal that the universe is fundamentally one ‘thing’ rather than of separate things such as “mind” and “matter”, ‘things’, in this version of affect theory, are connected at ‘lines of force’ (Thrift, 2004), relentlessly intermingled within the same form of matter.

Certainly this counts for a tremendously abbreviated version of affect theory in philosophy. However, what stands as a guiding concept in the following is the notion of porosity and the permeable body that responds in ways that is largely autonomous to what we normally address as agency or consciousness. Affect is thus seen as transmitted in ways that, as Brennan (2004) suggests, runs counter to established paradigms of an informationally self-contained identity or embodiment. On this understanding, concepts in affect theory provide us with alternative views on human-technology entanglements, notably views that allow us to think and talk about more inclusive understandings of the sensory in IS. Where experiential aspects of computing technologies and environments have predominantly focused on a limited human sensorium (mainly sight and sound), the porous body-subjects of affect theory is the acknowledgement that there is more at stake in being-with computers. We are, as Yoo suggests, in the world with our whole bodies, and research needs to develop ways of exploring the inherent *aliveness* of both the world and the subjects engaged in it. Philosophies of affect suggest new opportunities for how to approach the vibrant emergence of sensing bodies entangled with(in) pervasive infrastructures of computer technologies.

## 2 Methodology

Affect theory compels us to find ways of reporting and accounting for life that can appropriately relate how experiential fabrics of worlds emerge. We need to do this in ways that aim to not attenuate or deaden the vitality and liveliness of embodied experience. As Ellis and Bochner have argued (2000, 2006), the qualities of autoethnographic work lies to a large degree in the ability of the ethnographer (literally, the scholar who *writes* about people and cultures) to provide self-reflective accounts of her own world and to connect personal experience (as well as the experience *of* the self, the sense of being ‘me’, now) to wider socio-cultural-political worlds. The narratives that emerge out of autoethnography also need to be more than simple accounts. Rather than presenting an argument as a statement of facts, autoethnographies should work as evocative texts that aim to draw the reader into a narrative, evoking identification and resonance. They should use a compelling sense of aesthetics that invites the reader to see and feel a phenomenon in a new way (see e.g. Ronai, 1992). Similarly, Thrift (e.g. 2004, 2008) has suggested a number of methodological corollaries to the challenges that arise from the turn to affect. Part of this has been an experimental effort to “pull the energy of the performing arts into the social sciences [...] to see what will happen. To let the event sing to you” (Thrift 2008, 12). While not employing particularly artistic methods in the following, we propose that dynamics and energies of events, be they tensions, intangible moods, and vague assumptions can come to life through autoethnographic methods.

Ethnography has long been used within a variety of settings to both articulate and understand the everyday world of work and leisure, with a particular methodological approach to this work being based within ethnomethodology, sometimes known as ethnomethodologically inspired ethnography, or EM for short (Tolmie & Rouncefield, 2011, 2013). EM *accounts* offer a practice-based non-theoretical rendering of the world as situated, orderly and emergent that allows us to see “the animal in the foliage” (Sacks, 1995). That is to describe what is happening before our very eyes, and to meaningfully unpack, explicate and make observable practical action accountable (Garfinkel, 1984) to designers for example. Unpacking one’s own world, what is termed as auto-ethnography in a non-theoretical way is something that is emerging within the field of information systems (e.g. O Riordan, 2014, see also Schultze’s (2000) work on ‘confessional’ accounts), and although it is evident that this is important, as it offers insights into the world of the user as a felt and affected experience, which one might argue renders a less abstracted representation of phenomena few real-world, “*in the wild*” (Crabtree et al.

2013), a solid body of examples has yet to emerge. This is not to say that there are no such studies. Examples of such approaches include the development of systems for aircraft maintenance (Atak and Kinsma, 2011), ERP implementations (Kidd et al. 2013) and social media (Buscher, 2012).

The following sections respond to the call by O Riordan (2014) to explore further the use of autoethnography on IS phenomena. However, where O Riordan suggests that autoethnography is useful for research in ‘digitally mediated research settings’ (e.g. ‘auto-netnography’, see Kozinets & Kedzior, 2009), this paper shows how autoethnographic methods might be used for a form of ‘everyday research’ relevant to understanding experiential aspects of living within Information Systems.

It is particularly important to highlight the role and impact that autoethnography has when we consider the move from the public/organizational to private spheres of life where ITs are increasingly present. These are spaces where researchers are perhaps not welcome and where a more democratic, truthful, existential representation of lived experience is required in order that we might *really* understand about people. As Chamberlain et al. (2013) write, “the computer has steadily moved from the workplace to the domestic space and beyond, in all manner of forms...we can truly say that this technology pervades our day-to-day lives” (2013: 132). Approaches such as autoethnography will, in part, be able to offer up new understandings about technology, the way it pervades and intertwines with our lived, embodied, felt and social practices.

## 2.1 Everyday research and autoethnography

Stories, however private they may be, do not simply appear. They are crafted, reflected upon and their creation constitute a key part of a reflective, autoethnographic process. The autoethnographic ‘vignettes’ that follow take outset in our own everyday lives; not as researchers on official business in the ‘field’ (to the degree that everyday life as such is not *the* field), but as observers of and participants in mundane episodes related to ordinary computer technologies. Part of writing about the method of ones autoethnography includes writing, retrospectively, about how stories came to be. The ‘I’ in the stories is complex and functions as a mediator between the (actual) author and a plausible, readable narrative with performers as well as a recognizable beginning, middle and ending. The self that is invoked (rhetorically) is not a ‘researcherly’ self, distanced from episodes or scenes of everyday life through the application of a fixed method or a theory. Instead, the ‘I’ appears reflectively in the attempt at writing evocatively about the self as it comes into contact with the world. Weick’s notion of sense-making (1995, see Boylorn et al. 2014; 189) might provide a useful working model for how our vignettes were given shape. Sense-making might also constitute a partial platform for other scholars in developing an autoethnographic attitude and process by providing a frame for sensing and representing resonant narratives about IT emerging from everyday life. Weick, Sutcliffe and Obstfeld (2005) suggest that sense-making is a process of “turning circumstances into a situation that is comprehended explicitly in words and that serves as a springboard into action” (Weick et al. 2005; 409, cited in Boylorn et al. 2014; 189). Sense-making is an everyday reflective attitude where experience, private histories, memory, and cultural knowledge are leveraged to organize and make sense of the world. While sense-making is practically tacit in the flow of everyday life, Boylorn et al. suggest that scholars might elicit and structure sense-making and organization of the world as a self-conscious, reflective activity through the writing of autoethnographic accounts. The process of sense-making suggest a cyclical sequence of events that include an *enactment*; something happens, something that disturbs or breaches everyday consciousness, a *selection*; suggesting a bracketing and an interpretation of an episode, and finally *re-tention*; creating acceptable and coherent (Muncey, 2010) meaning from an episode, thus providing a sufficient interpretation that becomes part of ones identity.

In our case, the ‘raw’ material that helped us create the narratives was derived from a selection of the main authors’ experiences, driven perhaps by the slight-but-persistent trauma of a headache, and a clutter of personal notes that circulated around these recurrent headaches as well as some incoherent fragments of essays and papers that sought to organize reflections about bodies and ‘walking with technology’, awkward ethnographic encounters, and a potential sunburn on a bridge (Bødker, 2014).



These were *enactments* in the sense that they were personal memories embodying experiences of corporeal trauma that were *selected* and gradually, messily written into a discourse on ubiquitous IT. The *retention* in this case consisted in part of a developing curiosity that led towards articulating a broader question; how can I feel ITs in my body, in my gut, in my head? Why is it that I worry/become frustrated/feel my phone vibrating all the time? The process entailed going back and forth between short notes, images, stories heard and remembered, writing and rewriting sketches of narratives or theoretical notes to make sense of things. The first story on ‘Hertzian Space’, for example, was documented and remembered first in the form of an image (fig. 1), sketched out in a short note as a proto-narrative and later written into a coherent narrative. The process opened a more structured path for the first author to actively seek out, have a dialogue with external sources and thus explore further ordinary episodes where embodied dispositions and performances were enacted through ITs.

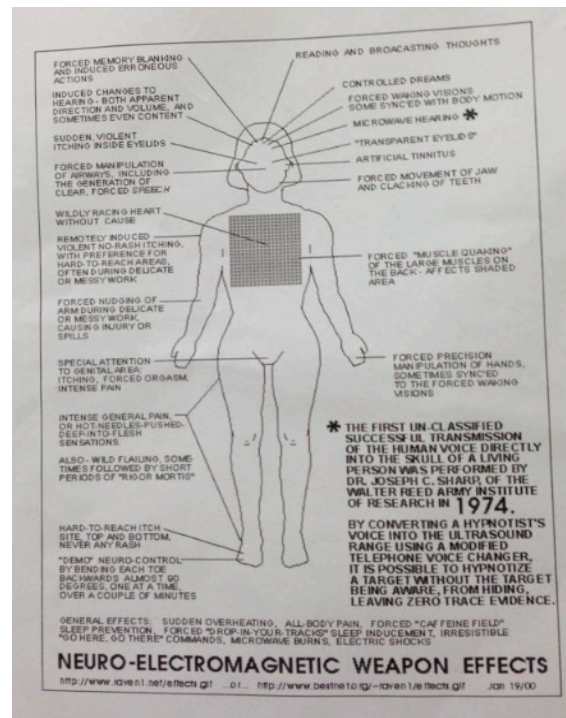
We suggest that the process of creating autoethnographies might use an additional step, external to sense-making, namely that of *conceptual audacity* (Brinkmann 2012). As a text intended to resonate with an academic audience, the account of and reflections on personally significant episodes is arguably not sufficient. By conceptual audacity, we here mean an effort to outline conceptual topics that allow for a wider theoretical contemplation of the episode under scrutiny as well as adding to the accumulation of possible trajectories. Brinkmann (2012) suggests that scenes from the everyday life of the scholar requires theoretical reflection that helps “researchers become defamiliarised from their lives and distance themselves adequately from their subject matters in ways that facilitate research with a critical edge. Without theories and philosophies, everyday life research would become nothing but a trivial recounting of our quotidian activities” (Brinkmann 2012; 19). Thus, our vignettes are presented as three tangles or ‘knots’ that include a story, folded around denser theoretical accounts and discussions that link to broader and more speculative theoretical vectors. Rather than strictly separating theoretical points from the empirical, the form of the knot is intended to evoke theoretical and conceptual tensions; there is no inherent need for IS researchers to apply affect theory on their autoethnographic ‘everyday life’ research, but for the purpose of exploring embodied feelings and moods as part of what living with computers we argue that this theoretical position is a possibility. If thus perhaps superimposing theory on a story told from what at least *reads* like a ‘non-theoretical’ position – that of everyday life – evoking conceptual work as lenses is an opportunity to put into orbit theoretical directions and even unexplored and partial ontologies (or onto-stories, see Bennett, 2010) that allow us to gradually theorize experiential IS differently.

It seems that most scholarly work entails a process of objectification through the eradication of its author(s). Methodological orthodoxy often has us conform to an ideal of objectivity that denies the researchers lived experience, the lived-in body and the researchers mundane practices of (self)-knowing. Doing autoethnography as a kind of everyday research requires moving back and forth between self experienced, autobiographical notes and observations and an external view derived through inquiries with a wider cultural group or through the analysis of other cultural materials. Applying theoretical perspectives as well as discourses ‘beyond the self’, we side here with Anderson (2006), who has argued that an analytic autoethnography “has five key features: It is ethnographic work in which the researcher (a) is a full member in a research group or a setting; (b) uses analytic reflexivity; (c) has a visible narrative presence in the written text; (d) engages in dialogue with informants beyond the self; (e) is committed to an analytic research agenda focused on improving theoretical understandings of broader social phenomena” (Anderson 2006: 375). In the story ‘Hertzian Space’, YouTube videos and circulating conspiracy theories is used to substantiate and flesh out the story, in ‘Rage Games’, road rage as a more well known phenomenon, waiting as a ‘hidden world’, as well as online resources on how to control gaming frustration are consulted, while the last story ‘Vibration Matters’ cites a larger study on ‘phantom vibrations’ to reflect on its argument.

### 3 Hertzian space

*"I am a sucker for the sublime" (Michael, 2000; 45).*

I am a sceptic. No doubt. But I found this note stuck to a noticeboard in the local supermarket. I noticed what seemed to be the title; 'NEURO ELECTRO-MAGNETIC WEAPON EFFECTS' first. Capital letters, very important! Then went on to read about the consequences of applying such horrible devices on the human body. Apparently, all this was backed by facts. Things got a bit strange from there.



**Fig 1. 'I found this note in my local supermarket, things sort of got a bit strange from there...'**

I had a bit of a chronic headache; the normal kind that is never really debilitating but merely a nauseating reminder that you actually have a head, that there is something going on inside your skull. I'd had this before, but the note on the board made me think. It seemed to amplify the feeling of pressure in my head. My thoughts; Crazy person! Who would put up stuff like this? Most likely a kind of foul smelling, tin-foil hat wearing bloke; all the usual prejudice. But something from the note lingered. Perhaps I kind of wanted all the madness to be true. As a youth (or a child, I forget) I consumed all kinds of Charles Berlitz-style 'Bermuda triangle', paranormal, Atlantis, 'making navy cruisers invisible using strong electro magnetism (and thus apparently leaving the crew in a kind of ghostly interzone) literature. I read all this alongside a solid dose of Science Fiction, which did not really help my reeling imagination connect squarely to a cold war, mostly overcast 1980's everyday. It just made life a bit more exciting, a bit more unknowable and adventurous. When I got home from the supermarket, I glanced at my WiFi router, Apple-green eye lurking in the corner. Headachy and tired. I know about radio frequencies, background radiation, electro magnetic fields, so no need to worry, right? Strange thoughts and headaches disappeared, reappearing over a couple of days. Talking to a friend on my smartphone I thought I noticed a slight tingling in my chin. Is Bluetooth 'on' on my phone too? Feeling light headed, I thought briefly about possible compound effects of radio frequency 'radiation' sources? A lack of concentration. My partner suggested that maybe we shouldn't keep our

smartphones in the bedroom. ‘They’re too bright, they ruin your sleep’, she argued, but I sensed something else underneath that suggestion.

Nothing really *happens*, but a lot of things happen. Stewart has proposed that the phrase ‘ordinary affect’ might cover “the quality of a continual motion of relations, scenes, contingencies, and emergencies. They’re things that happen. They happen in impulses, sensations, expectations, daydreams, encounters, and habits of relating, in strategies and their failures, in forms of persuasion, contagion, and compulsion, in modes of attention, attachment, and agency, and in publics and social worlds of all kinds that catch people up in something that feels like *something*” (Stewart, 2007: 2, italics in original). The note in the supermarket is part of a circulating feeling of *something*. Something ghostly. Something absent, but clearly *there* – a something that seemed ‘thrown together’ at that moment when I saw the poster, a “moment when a list of incommensurate yet mapped elements throws itself together into something” (Stewart 2007: 30). I had heard of these things before, I had a headache, I used to read rather occult stuff, my partner said something the other day, and an acquaintance died of brain cancer. Yet this is not just a personal, biographical matter. The poster forms a part of a larger structure of public feelings. In ways that resonate with culturally significant understandings of dreams and thoughts as ethereal, fluid, mobile, intangible, radio wave ‘influencing machines’ are sometimes believed to change our perception (reading and broadcasting thoughts, controlling dreams, see Tausk, 1919/1992). Yet it goes deeper than merely manipulating your invisible ‘brainwaves’. Electro-magnetic waves, according to the poster, are also harmful to our bodies, causing itching pains, forced orgasms, issuing “go here, go there” commands (fig. 1). There is ‘something’ to digital infrastructures that defies the delineable, predicable effects. A lot of the ‘something’ is narrated/circulated in the more obscure corners of the Internet. Perhaps in its seeming lunacy, stories about digital mind-control are ways to re-route unremarkable digital infrastructures into previously strange and strongly embodied territories? Not only can we check our emails everywhere, we also get a headache (or worse). Radio waves literally *hurt* us, touch us, make us different, and remodel us down on a cellular level.

In his work on Critical Design, Anthony Dunne (1999) suggests that modern radio technologies have facilitated an unseen space of radio wave ‘ethers’ as well as a number of cultural imaginaries. The term ‘Hertzian space’ covers the real and imagined fabric of radio infrastructures (e.g. the radio waves in the WiFi or Bluetooth spectrums) as well as incidental electro magnetic fields from all kinds of electronic appliances. A number of both poetic, paranoid and downright silly imaginaries circulate around possibly pathogenic properties of non-ionizing waves. Dunne writes that “[t]he seemingly illicit information exchange of “dreamy objects” offer one possible interpretation of the electrosphere. It helps us think of electronic objects in “hertzian” terms, as interconnected fields rather than discrete things. It acknowledges the problematic conceptual status of electronic objects arising from their ambiguous identity as hybrids of matter and radiation, functioning at scales and speeds well beyond the range of human perception.” (Dunne, 1999; 121). A hertzian space is an intimate connection drawn between porous subject-bodies and technologies, striating (or ignoring completely) separations of fleshy and machinic properties. The hertzian space is arguable as much a part of our bodies as it is a distinct landscape out there to be charted. My Wi-Fi router becomes enrolled in the poetics of the porous body-subject. Searching for something about harmful electro-magnetic radiation, I come across a lot of conspiracy theories on line. Subliminal messaging, manipulation through the TV scan-lines, ‘frequencies of fear’, HAARP military mind control, MKULTRA. Also, the power-lines are bad for your (mental) health, the computer controlled smart-grids, most of all, of course:

*Caller:* “apparently there are black boxes in the power companies that produce the Lilly wave, and they’re associated with, [ahh], you know, homeland security or whatever, and basically these devices put ultrasonic waveform pulses, riding on top of the regular 60 hertz wave,...

*Host:* “ha, hm. hm..”

*Caller:* “...and they are mind control waves and they’re coming into everybody’s house” (YouTube, 2013, 08:10).

The ubiquity of digital networks is typically associated with discourses of always-and-everywhere efficiency, augmented knowledge production, and new, innovative economies. But the invisible has a certain force, an attraction as well as repulsive features. Given its invisibility it sometimes throws together mystical, anxious properties and imaginaries. Conspiracy theories, perhaps, are mediators of immense change, a diagnostic foretelling of what might be revealed in the midst of chaotic transformation and tumultuous, rapid paced change. They seem to be part of a discourse of a vague, never quite substantiated, but nevertheless ubiquitous nervousness.

## 4 Rage Games

*“[t]he cultural landscape vibrates with surface tensions spied or sensed” (Stewart, 2007:45)*

I hear strain, annoyance mounting in his voice. My son is 10. Even if he has learned to use the basic functions of a PC at an early age, he is still learning the basics of patience. “Daaad, it keeps asking me for a password, what’s *wrong* with it?”. He emphasizes ‘wrong’ in a way that suggests that he blames the laptop for wanting a password. “It just needs to update something”, I say, not at all sure that this will appease his grudge with the machine. Feeling a slight annoyance building at having to break away from my apparently relevant domestic chore; vacuuming. I type in a password (tap-tap-tapping impatiently on the keyboard), and resume my vacuuming. Seconds later I hear his voice again, this time with resignation; “ugh...now it restarts. I was in the middle of a game, it was going so well”. My response is predictably adult; “Sometimes that’s how it is, computers need a bit of patience – they need to be maintained too. Anyway, we’ve talked about this before”. He’s silent, just looks back at the black screen, dialogue box showing the status bar progressing slowly. “*Less* that 5 minutes? That’s still a long time” he says. I shrug to indicate my indifference, but my voice is strained and quick; “Well, but sometimes it changes quickly, do something else if you can’t wait”. He mutters something, incomprehensible over the noise from the vacuum cleaner. I bought him a Nintendo DS game console when he was around 6, and having seen his older sister play one for a while he wanted one for himself. We were planning for a long journey, and maybe it would keep him busy on the trip. I sometimes later regretted the gift. He would end up with tears in his eyes when a game was particularly frustrating; “no fair” he would mutter, shoulders tense with anger, eyes downcast not to show his tears. I would occasionally brush it off with a “come on, just try again”, cursing myself for having allowed his gaming session to go on for too long, but finding no other realistic option than to let him have another go. Other times a hug would make him sob for a few minutes, and then he would find something else to do. A few days after the update incident, he wants to show me a new game. In it you play a piece of meat that you have to steer and jump through mazes of meat grinders, chopping knives, and moving saws. I’m a bit disturbed by the raw steak, your protagonist game character, being cut to pieces (bloodily) in a meat grinder; “It’s great” he says, face contorting slightly as he expertly jumps his piece of meat through a particularly tricky stage in the game, “you know, it’s the kind of game they call *rage games*, you’re supposed to get angry cuz’ they’re so annoying to play”.

Not being a gamer, I nevertheless feel that I know what my son is feeling. Operating a computer, even one that is ostensibly user friendly can take tolls on your patience. The world of usability practice is ripe with advice on how to avoid ‘user frustration’, optimizing feedback of system status, reducing wait times. People who grew up with computers as tools for discrete information processing purposes running sequential processes will know that current digital machines now execute a multitude of concurrent processes and operations on many levels in the system: multitasking applications, downloading web content in the background, updating programs, querying cloud services and so on. Much of this takes place out of sight so as not to bother the user needlessly with mandatory routine operations. Yet there is still waiting involved. And the occasional debilitating frustration.

There is clearly a visceral component to frustration. Frustration registers in my guts. My body becomes tense, I feel uneasy, hands might shake a bit, my tone of voice changes, I might hold my breath or increase respiration, and clench my jaw while I exhale loudly. Standing in a queue I shuffle my feet, look around at other people, shrug to loosen the strain (or just to do *something*), look at the ceiling,

raise eyebrows, twiddle thumbs. A lot happens while nothing is happening. Ehn and Löfgren discuss the phenomenon of *waiting* at length in their work on what they term the ‘secret world of doing nothing’ (2010). What kinds of energies are evoked when we’re frustrated? What do we *do* with the time (seconds, hours, weeks, years) that seems to be stolen from us while we linger in a limbo of ‘in-between-ness’? Some energies are destructive (smashing your smartphone or handheld gaming console into the wall), some are creative (singing a song, counting to ten, daydreaming, planning, scheming). Importantly, waiting, and the way waiting may or may not turn into frustration, is ubiquitous. So ubiquitous in fact that we rarely notice how waits and small frustrating moments are scattered throughout our everyday lives, and how such things give rise to all kinds of coping tactics; daydreaming, powernaps, rocking back and forth, clenched teeth. But there is also the venting of frustration that turns from a ‘knot in your stomach’ or an involuntary gesture to full fledged violence. Road rage takes on more recognizable form (see Michael, 2000): silent shouts and rude gestures behind the windshield. Waiting is a performance of material and infrastructural entanglements. *Things* and the ways things relate to other things command us to wait: no cars (body fixed in the seat, isolated from the world) stuck on busy roads, no road rage; no games on slow computers, no game rage. Waiting registers in our bodies. What counts as ‘frustrating’ seems highly dependent on the situation as well as the cultured body’s ability to respond to a wait. My sons’ frustration might easily be attributed to a cognitive immaturity that he will (I hope) grow out of, and perhaps also a relative inexperience with computers. Yet we need to understand my sons ‘computer rage’ not as a kind of subjective or biological disposition (as it would be, were we to consult standard psychological views), but perhaps as the performance of a particular relationship to the machine. A number of on-line self help guides on-line can aid players with their anger: “Get Over Anger Caused by Video Games; “Playing video games can cause some people to experience feelings of anger and frustration. Anger can be spurred by the content of the game, by the player’s skill, or by outside factors. Being able to deal with the anger in the moment and on a longer-term basis can help you have a healthier relationship with your gaming hobby” (Wikihow, online, n.d.). The machine is the other, and we are taught to work on cultivating our relationships with it, much like we learn to live with companion species like dogs or cats.

## 5 Vibration Matters

*“Down to its smallest unit, the Spinozistic material world appears to be an infinite expanse of vibrating bodies which constantly affect and are affected by one another” (Cimini, 2013: 137).*

“Do you sometimes get this weird feeling that you’ve missed something?” a friend asked me. He was looking a bit dishevelled, getting ready to leave, looking across the room. “What are you looking for”, I asked. “Er...I dunno” he said, patting his coat. “Probably nothing”. After having patted my own pockets, we left. It was winter. I had things on my mind; work things, things I needed to do, Christmas things, things I needed to talk to people about. As always I had my smartphone in my shirt pocket, and as I walked along, pondering, I had to stop a few times to check if it was silent. I kept getting the feeling that the phone rang or that a message came in, feeling something vibrating slightly on my chest. Occasionally I forgot where I had put the phone, so any slight quivering of my body began to feel like a buzzing phone. Gloves off; check phone; feel silly!

I realize that this is something that happens to me often. A 2012 study found that almost 90% of college undergrads has experienced this kind of ‘phantom vibrations’ (Drouin et al. 2012). More popular renditions were easy to find (e.g. Rosen, 2013). I was not alone. A growling stomach feels like a message coming in. A muscle twitches like a vibrating phone. These days I also wear a smartwatch connected to my phone. It knocks – ever so gently – on my wrist when a message comes in, even when I don’t have my phone on me. Will I get phantom *knocking* on my wrist too?

It is tempting to write about these phantom vibrations as a kind of stress, as the embodied response to a perceived need to be in touch and the ‘Fear of Missing Out’. It would explain things. It would certainly translate vibrations well into known and scholarly acceptable explanatory inventories. But how can we do without extrinsic forces of causation? Vibrating alerts translate the entanglement of ma-

chines and humans to new embodied registers. We used to think of computers as machines with screens, things we mostly looked at, made sense of through a relatively limited amount of senses; vision, maybe hearing, hand-eye coordination for input. Now, perhaps, we are not so sure anymore. My phone is a part of my body in the same way a rumbling tummy or a sore thumb is. In *Empire of the Senses* (Howes, ed. 2005), we find a sustained critique of the ‘linguistic turn’ in the humanities and the social sciences, and can be read as an attempt to (re-)install the corporeal body (or the flesh, see Kozel, 2007) into scholarship. New mobile computing technologies, ‘UbiComp sprawl’, experiential computing: these should compel us to find new modes of inquiry and to cultivate new sensibilities that consider the multi-sensorium without reducing it to something that is not the thing. Sometimes ITs hurt your head, hurts your neck. Sometimes it vibrates within you. Very little has been said about this, and the tendency in our field is to shift the visceral to other (external) registers of analysis; the psychological, the social, the discursive. Phantom vibrations suggest that perhaps we do not need extrinsic causal textual formulas to think and to see why and how ITs are always already intimately entwined with flesh.

## **6 Towards ordinary affects in IS**

This paper has experimented with expanding the repertoires for how IS can engage with Experiential Computing. Using philosophical affect theory, the paper demonstrates how everyday research and autoethnography can offer new ways for representing and understanding forms of corporeal ‘felt-ness’ of human-technology entanglements. In many ways, the Spinozist ontology, particularly as it is spun through the peculiar Deleuzian centrifuge, is radically different from the standard view of socio-materiality. Philosophies of affect radicalize a distinctly non-human perspective, and we suggest that further work is needed to explore and conceptualize philosophies of affect and embodiment in IS. In the paper we relate personal stories wherein embodiment figures prominently. In this way, cultivating accounts of Experiential Computing through autoethnography and the lens of affect theory can add to our understanding of agency, embodied performances, and suggest ways to think about corporeal dispositions within technology. Through these stories, so we hope, we become aware of the propensity of computing technologies and environments inundated with computers to ‘move’ us “in embodied and unpredictable ways” (Paasonen, 2014: 140).

We began by pushing for an ontology that sees the body as a sensuous, highly porous and permeable entity, subjected to forces, shock, and pleasures before these are registered in fully conscious, reflective forms. By using autoethnographic vignettes, the main author of the paper provided reflections and evocative examples of how this form of permeable body might look and feel, increasingly entangled as it is, in mundane relations to IT. In “Hertzian Space” we considered how eccentric beliefs about electro-magnetic radiation (Wi-Fi, radio, the power grid) spun a headache out into circulating cultural imaginaries, spawned by the concrete: a poster in a supermarket. In “Rage Games”, we saw how computer frustration can debilitate the body, render it vulnerable and incapacitated, but also, following Ehn and Löfgren (2010), how waiting might be turned into a broader range of energetic release, some more creative and liberating than others. In “Vibration Matters”, we saw how ‘phantom vibrations’ from mobile phones can be conceived as embodied connections with technology. Bypassing “extrinsic sources of causality or determination, an out-of-field ‘power’, a symbolic, discursive or ideological order” (Anderson & Harrison, 2010: 8), phantom vibrations were not addressed as a psychological blunder, a trick of the mind or, temptingly, as a symptom of stress and ‘Fear of Missing Out’.

Our suggestion is that the vignettes present opportunities to consider the role or the position of the body in relation to ubiquitous computing. What are some possible vectors through which computers involve or infiltrate the sensate body through pains or pleasures? All three vignettes write the entangled body into being. Particularly they attempt to write corporeal trauma and sensation (headaches, frustration, vibrations) as entanglements with information technologies and infrastructures. Our vignettes have pursued the concrete, and attempt to think somewhat ‘below the radar’ of representation or the traditional distanced observer, favouring instead a personal, vulnerable and open voice. Affect

theory aided in fleshing out some steps towards ‘onto-stories’ (Bennett, 2001), if not an ontology, of permeable, porous, and sensory bodies entangled with technologies. It would however be a mistake to assume that affect theory, or any theory, would allow us to escape discourse and representation. This is the paradox. It would indeed be a mistake, to believe it possible to, as we suggested in the beginning, write “from *within* affectively textured, lived realities of everyday life with technology” (p. 2), suggesting a transparent performance of the self through writing. The position of being ‘within’ is obviously problematic, since simply “getting in” to the field, and to regard the self, requires a cultivation of particular sensory practices, particular ways of paying attention, particular scholarly leanings to address theoretical implications.

While affect theories certainly resonate with our pursuit of passionate stories, Paasonen argues that affect theories do not “involve a simple turn away from the textual for the very reason that theorizations of affect are just as much a form of textual and linguistic exercise as any other type of scholarly investigation” (Paasonen, 2014: 139). We suggest instead that affect theories and an on-going experimentation with representations scholarly writing such as our autoethnographic work as well as other more openly visceral, touching medias (visual arts; film, images, sonic arts, poetry, performance) can be fruitful and contributes to the exploration of the myriad of ‘things that happen’ within information technology. IS as ‘experiential’ can (or should) be about more than going to the office every day to write up things from a well-defined field ‘out there’. In this sense, experiential computing might develop further affinities with more experimental, messy (Styhre, 2008) and perhaps ‘disobedient’ orders of representing and reflecting on how computers are imbricated in our lives. EC can (also) be about the many unpredictable, precarious and puzzling things that happen in the interstices of everyday life (Stewart 2007). Getting caught up in the small things that are, what makes up most of our lives can become important and significant for understanding what it means to live with computers.

We chose autoethnography as our medium for relating scenes of everyday life with IT. Our reports were not intended to show peak experiences or extraordinary events. They were consciously mundane and ordinary, drawn from self-observations, as well as from broader mediated imaginaries associated with IT. Through attentiveness to banal episodes from our own everyday lives, a willingness to reflect on and trace these and to iteratively write them up as coherent stores; essentially to let them count as *data*, we cultivate methods that have access, and are perceptive to, mundanely visceral and embodied-corporeal entanglements of ubiquitous computing and pervasive digital infrastructures.

Methodologically, autoethnographic work necessarily poses very difficult questions about what counts as knowledge, what counts as knowing (Scott, 1991). Autoethnographies are vulnerable performances in the interstices of memory, history, and meanings (Denzin, 2014). The vulnerability of such accounts lies partly in their disclosure of autobiographical and previously private worlds, but also becomes palpable in the way that the researcher only barely maintain a proper researchers identity in the face of the un-reflected triviality of everyday life (Ronai, 1992), and shifts from a naïve consciousness to become reflectively aware, performing a researcherly ‘I’ through writing. Only to shift back into an everyday consciousness. And so on.

Where we hope our autoethnographies and the theoretical vectors suggested might become useful for further theorization through the ways in which they invoke concrete trauma, tensioning bodies, and bodily ‘vibrations’. These could have been any other kind of response from the sensate body. These bodily, pre-reflective and ordinary phenomena that happen as events of forceful impositions on the body are typically excluded from conventional discourses of IT and experience. Trying to write evocatively about ‘my’ experience of being a feeling, sensing body becomes a plausible means with which to explore (or exhume) technological corporeality in ubiquitous, ordinary information systems.

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