REFLECTIONS OF A WIRELESS RUMINANT

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ABSTRACT

'Design matters' is interpreted in this exploratory performative paper via a narrative pastiche in the form of a design fiction concerning recent developments in ubiquitous computing and their implications for emerging techno-material culture. The article has two research aims: 1) to connect discourses on ubicomp with ones on design fiction, and 2) to motivate design research to expand styles of playful, reflective and interpretative modes, and genres of research writing. A first person narrative perspective is located in bio-cultural contexts of design fiction future use, referring to WiFi, RFID and GPS technologies also of today. The narrative is a 'tongue in cheek' critique of hidden voices of particants to current and near-future ubiquitous technologies. The paper is written as an abductive design narrative that intends to escape from often 'paddocked' research modes of writing about design. On offer is a playful, performative problematising mode of design research writing that is connected to to wider techno-societal concerns, drawing rhetorically on post-structuralist 'inventio' in the humanities.

CHEWING THE CUD

It was one of those winter mornings when you simply stood still and took in the movements of the muffled city, Rumina recalled. The date was 2121. She loved the arc of pale blue sky and the snowed over cityscape. But not just any day, she reminded herself. Not an ordinary Tuesday waiting for the human attendant to switch on the milking machines. Not one of those still fresh days when she traipsed the urban streets in her newly awarded wireless freedom. Days when she was terrified the Austrian designed robot mini-milker would sniff her out and snap onto her tenderest parts in front of any old pedestrian. Pervasive computing[i] was a phrase that came to mind, one she'd kept on meeting as history now reached her in the unfettered feed of wirless data that ripped though her once pastoral imagination. Here come another one. It's a bit jittery so far. Must be a large image coming through…


How strange this is, a mirror image, but not quite me, she reflected. An historical image from 2010, all that tech so cumbersomely balanced and strapped on. If I just concentrate on the feed like last time then the source might be revealed….

And so it was that Rumina stood stock still, her large piebald frame visible to the morning commuters alongside their head displays. 'Yes, here comes the background, 'she said to herself. 'It's part of a playful digital portfolio by a British designer called Matt Herring.[ii] That was early on in our interfacing with technology, she thought, aware she had started to use the word as a verb now. Look here's another feed … oh, its from 2004 and its about the move to 'techno-branding' as a replacement for burning our hides and tagging our ears with plastic: *Wi-Fi 'Smart Collars' For Networked Cows*.[iii] If I just close my long lashes and think about it maybe the source article will appear… Yes, here it comes: *Virtual fences to herd Wi-Fi cattle*.[iv] All very scientific? Look what it says: 'A farmer would

control multiple herds from a single server at home as if they were playing a video game'. Those were the days when they talked about social media!

Things have moved on. Here's comes a manufacturer's website … Its says 'RFID transponders are worn as ear tags or as an inter-ruminal capsules. Farm management can be fully automated for such processes as feeding, weighing, disease management, and breeding practices.'[v] All very functional.[vi] I must oncentrate on the word 'tags' … and here's my 'feed':
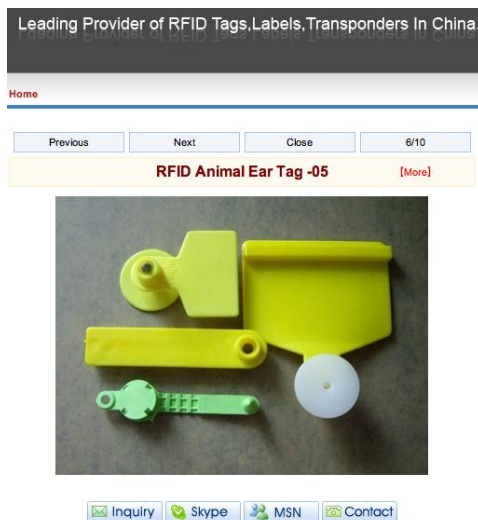
I've never seen these tags and injectors![vii] All the way from China back in 2010. There was even an RFID Animal Consortium then, but we 'hoofies' weren't yet part of its 'value added business services and networking opportunities to its members around the world.' We needed to be tracked and coralled. After mad cow disease national strategies for herding us were drawn up, just look at the USA![viii]

Then there was the use of Global Positioning Services (GPS).[ix] Ouch, that old MIT project that actually said on the web that 'We have developed a suite of electronics which sit on the top of the cow's head'.[x] Huh! They called it the 'Ear A-round'.[xi] And they called the man behind it 'the cow whisperer'![xii] The tech blog where this is coming from tells about the 'directional fencing':

> The commands vary from familiar 'gathering songs' sung by cowboys during manual round-ups, to irritating sounds such as sirens and even mild electric stimulation if necessary to get cows to move or avoid penetrating forbidden boundaries.

Boundaries, boundary crossings! It's my ancestors' digital experiences I'm partly sensing. But it wasn't all over with these tools. Following virtual fencing and GPS headgear, we experienced digital barcode branding with 'Biocompatible Chipless RFID Ink'.[xiii]

Now, almost a century later, we are embedded with microscopic WIFI tags that seamlessly move *design matter and matter for design* between gut, cortex and the Ether. Ruminating is what it requires. If I chew on a word, and then concentrate on it, the feed follows! Let

me think about 'tongue'… What is this? Back in 2000 an electronic artwork positioned us, tongue in cheek.. its a licking station, is it? I am not joking here.[xiv]
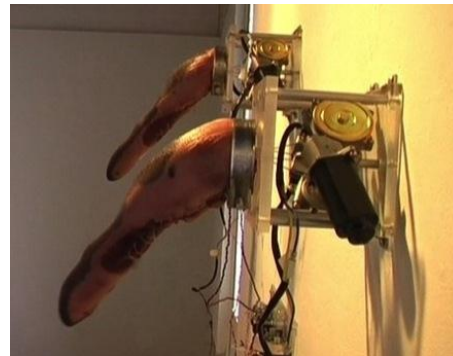
These feeds were still hard to work with. I've got to learn to direct them. Seepage they called it, or was it wireless leaking?

WIFI-WRITING

Rumina remembered one of the earlier playful wireless interruptions about design. It was on experimental narratives to do with social media, performativity and the city. A project called PLAYUR, part of a larger one called, what was it now?[xv] Aha: YOUrban.

The stories had been designed, she recalled slowly, as an experimental complement to more formal research publishing about digital design processes and enactments via a variety of media. Now here I am, Rumina reflected, a peripatetic part of a changing techno-discourse of mediated urban dwelling. Phew, she sighed, its one of those playful paratextual reflexive ruminations. Especially useful for thinking about design fiction, the fiction of design, like others did with science fiction. SciFi…WiFi … WhyFi!

'Four stomachs are better than one!' they had claimed in an Orwellian way as if prefiguring the prototype experiments to rapidly produce more milk after the nuclear fallout of 2049. And another interruption arrived, channeled via Matt Ward's work,[xvi] shifting itself as if from her third stomach to frontal lobe:

> It would be useful in the design world to prototype things in a way that help us imagine and wonder, and consider unexpected, perhaps transformative alternatives….
>
> This kind of prototype has nothing to prove — they do not represent technical possibility. They are prototypes that give shape and form and weight to one's imagined idea. This is a kind of prototyping that couples the speculation inherent in design with the creative license of fiction and the pragmatic, imminent reality of fact. … They aren't specifications for making, but they are specifications for imagining.[xvii]

Oh, see what it's status is now, recognises Rumina. The societal value lies in the design prototyping and in the stories about it, not a literal social science study! How to think into the future and to find ways, through play,

to debate it, and reflect back on the present too. The feed's from a recent conference on *Fiction and Design*. Here it comes … it's a report by Evert Ypma:

> The principle of enacting as a method of telling a story within design fiction therefore cannot be qualified as diegetic or as true fiction…. Design fictions are merely imaginary design stories that refer to reality and which are re-told in a 'designerly' way.

Funny how I've not come across this in my interest in design over all these months of following design leads with my WiFi on the hoof. The imaginary matters, the imaginary design matters, design imaginaries matter, grunted Rumina.

SPECIES INSPIRATION

Rumina, blinked hard and realised she was blocking the pavement and people were walking out into the street to pass by. Block …blog. That was the word she was looking for. Just concentrate and the wireless feed will come. It's not totally random if you are proactive. *Carniverous Cow* this one's called.[xviii]

It's an online, diary (not dairy) like feed, time stamped. A space for experimental writing. A witty, tongue-in-cheek creative and critical space, she remembered. The title, though, was a little alien to her rebranded identity and lifestyle and the embodied medley of WIFI, RFID and GPS. Maybe there's a new identity acronym there, she mused.

The blog was one of few that took discourse as its design material and played off the cow and her theory partner, a spider called Gramsci. Oh, here comes an zoom from the blog:

> The Cow was rather disappointed in Alice in Wonderland 3D. "They could have done so much more with it," she grumbled to Gramsci. "Both the subject matter and the technology begged for it. And instead, they just popped another sausage out of the Disney sausage machine![xix]

Rumina decided it was time to call these interruptions what they were: FEEDS. Not feed in the old sense, those pitch fork deliveries of hay in the barn deep in a nordic winter. But please, no more talk of linear production, no more self-reflexive squeezing us into those awful forms. 'I make milk not meat', she lowed against the hydrogen driven morning traffic steered equidistantly by way of families of nudgy sensors.

The feeds seemed mostly to be historical: from the end of the first decade of the 21st. Some of the feeds simply splashed into her retina, others rippled, warped and vanished. Then there were those that she was learning to motivate, to mediate. Get yourself back to today. Let the wireless cows roam free.

Roaming. And so it had come to pass that they'd incited the Electonic Frontier Foundation as a Digital Legacy Argument for limited species freedom.[xx] Freedom. 'It's like some Hindu-inspired kickover from the Nobel

Peace Centre,' Rumina grunted, recalling the old weblink she had been wifi-ed about yesterday via the peace promoting shop that sold recycled milk cartons made into 'cute wallets'.[xxi] At least it wasn't our hides for peace, she reflected. Shaking herself into the present, Rumina gingerly side-stepped the leftovers of a chicken kebab and its luminous sauce splatttered over the pavement. She glanced down at its flavoured microscopic LED particles all aglow in watery morning light. So much for organic feed. Adverts everywhere.

BEING BRANDED

'Branding!' she bellowed. Then silently, 'That's something I know about.' So much for all the pitter-patter-twitters of social media marketing. Rumina growled at the absurdity of the spread of 'brand vision recognition'.[xxii] She'd accessed the term soon after the forced, numbing wireless feed had been channelled to her as part of the 'freedom branding'. Chewing over her thoughts, she must have grunted and a little too loudly for one of the passers by swiped at the tip of his nose to increase the volume on his mobile device. He sneered at her waddling frame in his HoverBoots - or HBs as they were called - right off the bulletplane from Tokyo, as he was propelled by a cushion of air over the snow.

All this concentration animated Rumina's biofeedback sensors. She was still learning how to 'corp' them as it was now called: just use your body and your mind together they had told her. It was a little like that feed she had had yesterday referring to an early experimental narrative on aggression reduction called *Changing Hands*[xxiii] in an EU art project on mixed reality arts.

ROAMING FREE

An interruption, that's what I am, she grunted again, just in time remembering the silliness of the kebab's shiney sauce, and stretched her legs to avoid it. Bad enough with these glassy hooves on the ice, so I'm not going to let people see me splattered on the pavement, my black and white coat a spread of small dark puddles on the snow. The coalition government's *Primary Techno Decree* lumped together a crowd of us players with non-speaking roles. The first in a series of Release Strategies they had called it. Let them go where they like, they had decided. Simply release a batch of pervasive technologies and let them foster social media expansion and deregulation.

Three other actants, that elderly French theorist (Latour?) had called them. He had queried their being patched (talk about pointing fingers at us!) together with ubiquitous protocols and devices.[xxiv] ONE. Dairy herds to be released into the public realm of social media.[xxv] TWO. Domestic security devices would be allowed to snap to the urban grid as they liked, no longer house bound. And THREE, they would jettison a host of airborne advertising micro-drones, unswattable in their speedy reconfiguration and taste anticipation meta perusasion algorithms. Well, at least they wouldn't swarm around us bovines. The drones will keep those

smartphone commuters busy scrolling and pinching at their screens. Look at them batting and swatting already, two new gestures to be added to the haptic sign language of 2015.

WITHIN FREE RANGE

What's free, what's freedom? Here I am, released but regulated in this new free range urban paddock. Another interruption from that British designer, in the online magazine *The Economist* with a section on 'Augmented Business':[xxvi]
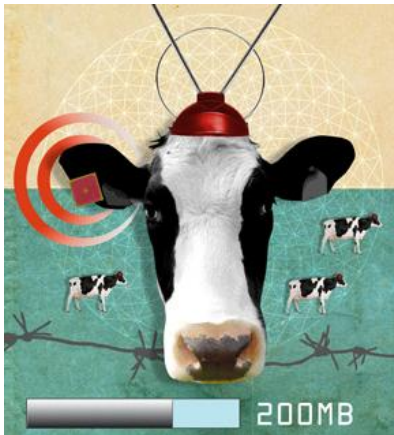
The article begins:

> CALL it the democratisation of sensors. Pachube (pronounced "patch-bay"), a start-up based in London, offers a service that lets anybody make sensor data available to anyone else so they can use them to build smart services. One tinkerer has Pachube's computers control the fan in his office, guided by temperature readings uploaded from a thermometer on his desk.

Still adjusting, I am. Wireless feed: now that's a design paradox! Reminds me of one of those RFID collared pigs learning how to shake off their devices. Wiley ones pick up the collars and log-in for extra nosh![xxvii]

Back to the beginning of my story. I'd decided if living with wireless feeds was the cost of my freedom after all the years in the underground milk farm, then so be it. Anything for release from the cave of production ever since the claims of global warming and nuclear fallout met each other that catastrophic Korean spring day.

The giant thunderstorms that had followed the 'same ethnicity, different nation' nuclear war had delivered sheets of rain and ruined the grass for centuries. No time for radioactive ruminations, then or now. Rapid action research was needed and designers were in demand, the immediate lead players in a Rittel and Weber model of delivery, some said it was. By then bio-engineering was already well bred into the consumer market, with stem cells a skip and a jump to human body recovery and modification, so food production took a sharp u-turn and moved full scale into the city. But as with all rapid innovations, the first underground paddocks were rather crude. As if a designer had delivered a near-future protoype and it'd been built without full specs. Granted,

we were well fed, and the Circadian Bovine Rhythm Regulators kicked in on time. We ate and slept and produced milk untainted by history or the longtime lingering of half-life atoms.

MOOBILE APPS

It wasn't long though before this new industry, once the stuff of far-eastern cyberpunk novels, was exposed in a new form of Nordic Steam Punk. We heard about it during a change of shifts by the human prototype milk tasters we endured every six hours on our new condensed day routine. The shifts were devised to fit into the old discarded 24hr clock, a multiplication of 6hrs by our 4 stomachs. Temporal curds and whey if you ask me. Then there was motion and mobility. 'There's something you must experience. A new mobile cartoon series,' Jacob had said to Tine, named after an old Norwegian dairy corporation[xxviii] 'It's forwarded by a gentle brush of air from device to device.' One of the first real motion sensor narratives.

Hold on a second…. Here comes another feed from the past, about Kenya, text first it seems then image…

> iCow, an application developed by Charles Kithika helps cow farmers to track the fertility cycle of livestock as well as monitor cow's nutrition leading up to the calving day; so that breeding potential can be increased. The app is a voice-based application that means it can work with low-end smartphones too, which is more of a possibility keeping in mind the low per capita income in the area.[xxix]

We've moved on from that low end living, now able to understand design fictions of the past and future through not just acts of active search and retrieval, but through reading. Reading as rumination, for all of you who need to know how my words matter in the wider world. Yes, it's an important issue. Imagination and fictional voices matter in designing! Ask any designer or silly old bovine like me who now has access to ubiquitous technologies at every teat and tongue tip.

UDDERLY URBAN AM I

What a day it was when we were released from that cavern where they first moved us to protect their

vitamin supply. That giant corralling of us, heated by the steam of human effluent in the new 'input-output consumption equation' championed by the First Coalition. (They'd had to change its title of course, too much carbon showing in the name!).

Free to roam, no charges! That was unlike the early days of smartphones, 3G, swipe-wipe, price-slice gestures and codings. Now there's only our nightly physical log-in at the urban tower by the Dutch architects MVDRV now FWNLB.[xxx] Once upon a time people mocked MVDRV's 'projected' pig farming in high towers[xxxi]. FWNLB's built one in Oslo that's like a glass of milk! Tall and creamy, glistening fiordside. Like that social media and milk site with 'Cows deciding?.[xxxii] Whatever next!

CLICK - AND BE GONE

Freedom - and its wireless tethers. Freed. Almost. Freed. Feed. The words just a letter apart. All these pervasive, mobile and wireless technologies were a serious matter for current and projected design and the emerging area of design fiction, Rumina understood. In 2011 the world was a-buzz with smart phones, social media and mobile games.

Another feed's here … an old *Facebook* game designed to be trivial, to click and click away at 'connections'. You won't belive it's called *Cow Clicker.*[xxxiii] And it reads 'To farm is human, to click bovine'. Whose clicking? Right, that's a good moment to stop this design fictioning. Back to reality. I'll 'click' out of these wireless ruminations and meet my friend Ubiquita for some good old hoof-to-hoof chat.

ACKNOWLEDGEMENTS

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[v] http://www.electrocom.com.au/rfid_animalid.htm

[vi] http://www.prlog.org/11030994-animals-tracking-using-hygienic-rfid-animal-tags.html

[vii] http://www.rfid-in-china.com/products_673_1.html

[viii] http://www.aphis.usda.gov/animal_health/animal_diseases/animal_id/

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[xxvi] http://www.economist.com/node/17388392?story_id=17388392

[xxvii] http://www.youtube.com/watch?v=8ImZmDYme_s

[xxviii] TINE: www.tine.no/om-tine/226230.cms?de-flotteste-kuene

[xxix] http://www.elearning-africa.com/newsportal/english/news262.php

[xxx] Renamed FWNJB after the new meta-state of Flanders, Wallonia, Netherlands, Luxemburg, Brussels.

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