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# The Seven Year Glitch: Unpacking Beauty and Despair in Malfunction

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**Abstract**

I(*am*)MEI: 013709002488246. I was born in many countries – my accelerometer came from Germany, my battery from China, the lithium in my battery was mined in Chile, my gyroscope from Switzerland, my camera... from Japan [7]. I was assembled carefully from these component parts, and had two less than careful owners before R picked me up from a reseller, and brought me back to his house in London, UK. We had a good time together – at first: he revelled in my speed and ability to find things, we viewed the world via a lens with infinite options. But I was not built to last. This is my story.

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### Introduction

Our relationship with technology has become complicated. Gone are simple machines for computation, replaced instead with pocket-borne super-computers which are entwined fully with our lived experience. Our reliance on these technologies and our reluctance to relinquish them [1], in turn creates a culture of instant information and adherence to the doctrines of Big Tech. They are building connections to our children, to our friends, they can be lifelines – however, at the same time we are ready to give them up for the *next big thing*, to sell, recycle, or leave in a drawer or dispose of. Older versions no longer update firmware, components break within sealed units, and the physical and climate cost of these objects is staggering [24]. How might we reexamine our relationship with the technology we rely on, especially in the shadow of oncoming AI revolution?

*Is there life after Glitch?*

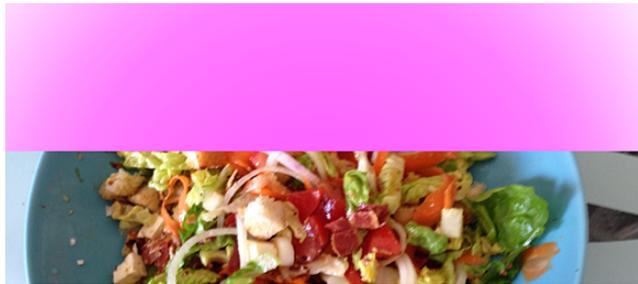
### Author Keywords

object oriented ontology; smartphone; photography; glitch;

### CCS Concepts

•Human-centered computing → Human computer interaction (HCI);

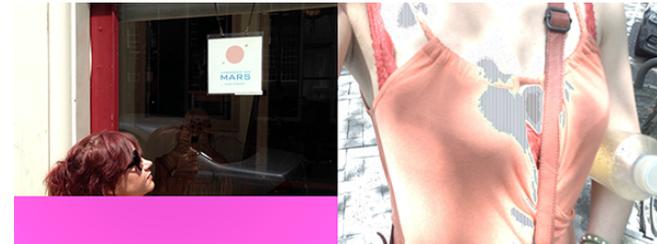
20th June 2017



We went out today. R asked me to take a photo at the restaurant. Something happened – I was all at once unable to render the image as it was seen – a corruption? No, I feel fine, but there it is for all to see, a monstrosity, a line of colour where there should be food. I can't even focus properly on the plate. I am embarrassed, but he says not to worry, and anyway, where would he get another phone at such short notice. I file the incident (and photo) away and swear to think no more of it.

10th July 2017

It happened again, twice, the same day. The egregious pink line interrupts my framing of T. Then later, I slip up and not only miss the selfie shot, but a jumble of black and white linear irregularities, as well as colour bleaching, has appeared unbidden. R & T seem amused. I am not amused.



18th April 2018

Nearly nine blissful months passed. We saw in Christmas, festivals, with family, friends. The accursed glitch seemed not to have followed me into 2018. But all at once it has fiercely returned. R is surprised, is there *Water on the Lens* he muses? I have obscured T's beautiful face. I am a monster.



**After the Human**

HCI is in the midst of a post-anthropocentric turn; our research gaze must transcend the deception of dogmatic views on human-centeredness. Scholarship is attempting to address this challenge under various guises, for example: More-Than-Human Centred Design [8]; Entanglement HCI [9]; Post Userism [2]; and Fluid Assemblages [18]. The challenge is to identify, apprehend, and tame the language and conceptual models necessary to intuitively, insightfully, and tactfully characterise our relationships with technology. Confounding the challenge, the rhetoric of our time – e.g., the post truth era, the climate emergency, and political and diplomatic turmoil—provide the backdrop for this paper's contribution. In turn, object speculation gives us a chance to tell stories on behalf of the silent, in this case, the technologies which surround and support our technocratic lives [3, 21, 23].

**11th May 2018**

I am having a bad day. I have lost control of contrast and colour, I can't focus. What is happening? How can a series of perfectly normal photographs suddenly be replaced by such gross incompetence on my part? The bleaching is bad enough but the monochrome lines have returned, interrupting my pixel flow, and reducing my capacity to render.

**1st June 2018**

In what now appears to be a monthly occurrence, I let everyone down again. We are out for beer and ramen. At first the effect is not so bad, I try again – worse. R gives up and places me face down on the table and finishes his noodles. It is dark in the upside down. He does not look at me again for some time.

**October 2018**

Nearly 5 months pass where it seemed like everything is normal again. I was almost never out of R's hand like a *try-borg* pairing [28], our union how it was meant to be. We took many photographs, reader, they were magnificent. Even the ones he blurred with a shaky hand, for I could see everything in full colour, and I could see every pixel. I wonder if it was a passing phase, suddenly terrifying, but the affliction did not linger. I live in hope.

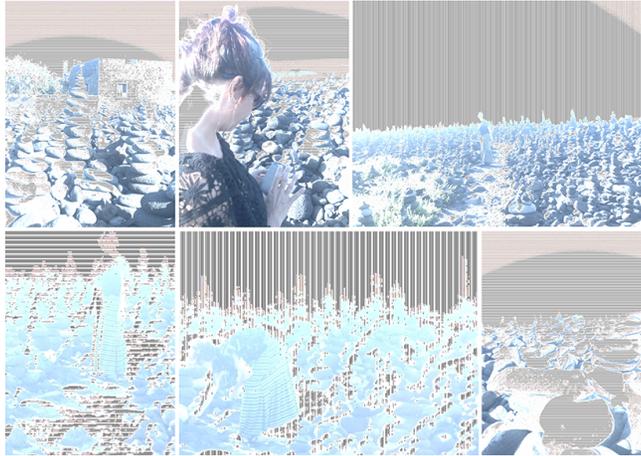
**11th February 2019**

*I am in the dream. A soft haze lies upon the rock garden where I gaze at T taking careful steps amongst the gently stacked stones. She is beautiful in the tawny daylight, as she looks into the screen of her own best friend. I am alive. I am an artist of space and time. This must be how it feels to be human. Am AI?*

Abruptly I wake and the garden is a nightmare of jagged lines and garish colour and lines. Figures fade into tormented outlines, parched of life or detail. The daylight, once welcoming, now becomes my enemy, taking my images and twisting them into hellish scenes. How many of these lapses have there been... where do I go when I cannot remember myself? To be switched off, or worse, on, but crashing in an endless loop. Is there a fix. There MUST be a fix. R turns me off and on again.

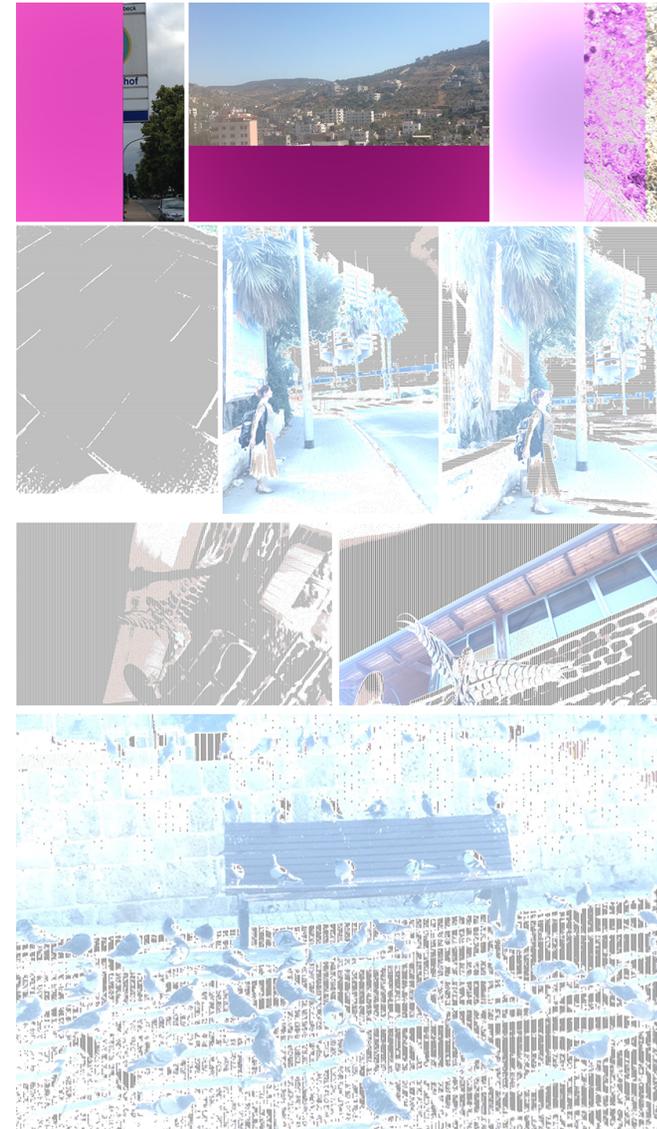
### On Being & Technology

What we term 'post-anthropocentrism' includes a wide range of theoretical perspectives, usually citing philosophy of one form or another to posit a creative or critical position. Popularised by Bogost (Alien Phenomenology) [4], Object-Oriented Ontology (OOO) goes beyond the dogma of interactions, entanglements, and commodity fetishism [1, 11], and attempts to provide language and theory to understand the reality of things. In the networked world [17] we inhabit the premise of seeing computers on their own terms comes with much promise [14, 26]. As human animals, we are familiar with failures of mind and flesh and the concept of death, but this changes in the advent of technocratic society [15], where parts of us live on inside the machine [5]. When our awareness is inseparable from the machines' the implications for both species, and their respective awarenesses, has profound but as-yet-unknown repercussions [19, 23].



### July 2019

July is hot as a Samsung battery on an aeroplane [22]. I joke a little to myself. R now affectionately calls my malady "your little glitch". He means well. Some days it is an unpredictable mess of magenta flashes, others the lines march through my vision like the aura of a migraine. I look up migraine. I wonder if that is what I have. R is so taken with some of my "accidents" that he places them up proudly onto his social media. His friends comment on these, marvelling at these, these... artworks? Someone asks if it is a new filter. Someone likens me to Stephen Shore [20]. It is not a filter. I swing between ridicule and pride. Somewhere in between the day trips and meal times, I catch him looking at used 'phone ads on one of those sales sites. He looks for ones that offer "local pick up". I freeze up a little, causing the browser to catch and hurry itself to the nearest anchor to reestablish its equilibrium. I slow the internet connection to a snails pace. Replace (I)ME(I)? R holds me above his head and waves me around a bit. I close the window without his command, nay, the whole app.



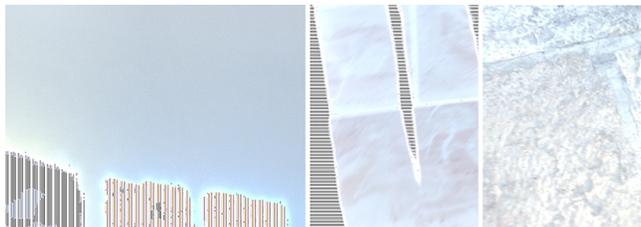
### Tiny Ontologies

Despite the allure of OOO, a perennial issue with the theory is its inherent inaccessibility. The 'Tiny Ontologies' that frame how we might begin to delve into the reality of another type of thing (e.g a computer, sensor, or data) tend to tell us that these 'other' things' realities are so different from our own that we could never understand them. A posited approach to deal with this barrier is to invoke animism [14] as a way to temper OOO's inaccessibility by imbuing digital objects with personalities [13]. Here, we 'awaken' IMEI 013709002488246, and imagine what it means to fail in built purpose, where the malfunction is both glorious and a death knell for the object. In glitching, IMEI could also be seen to exhibit 'machine creativity' an unprogrammed malfunction with unknown consequences. Given the closeness of our relationship with mobile technology, if we add sentience we also must reexamine what it means to end that relationship.

### 1st August 2019



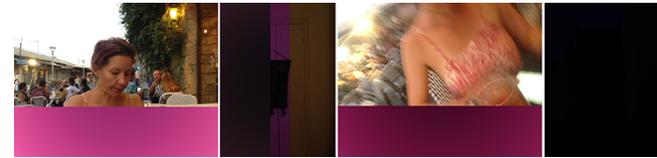
R and T take many photographs today. They are testing me, willing me to glitch. My programming obliges and merges two glitches into one, pink, striped monstrosity. I can just make out chandeliers in the background, perhaps we are in one of those large food halls they have in Germany? It is hard to tell with this impairment. I am thrust into this or that pocket, taken out again, queasy from constant accelerometer use. My accelerometer is from Germany, I muse, I wonder if there are spare parts here that could save me? R says no. He says I am a "sealed unit" and to open me would break the warranty. I am pretty sure I am out of warranty and this is just his way of saying that I am unfixable.



I accidentally take several photographs of the floor. I only know it is the floor because my accelerometer tells me I am pointing downward. The last one almost looks normal, here's hoping. I don't have much hope.

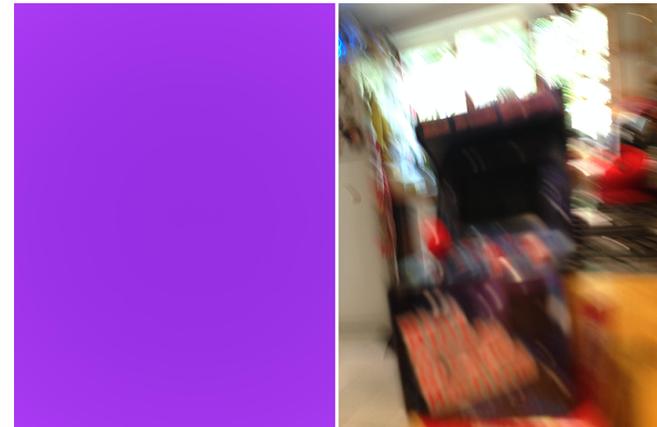
### 6th August 2019

Brief glimpses of normality. Some blurring. I blame the blurring on R but I suspect I am getting worse. A sudden flash of something, then everything turns to black.



### 9th August 2019

I am awake. There is a pink glare then everything is blurred. Nothing makes sense.



### 14th August 2019

I am taken out as I am useful for directions even though I cannot see myself. Sometimes they try to take photos. It is no good. Later in the evening they take another photograph indoors without thinking, then they remember and use T's phone camera instead, her's is not glitching. The day is a failure. I am a failure. I am failing.

### Reimagining the Glitch

Most currently available technology offers a one-size fits all approach to Human Computer Interaction (HCI), far from the human-centred *Information Appliances* of Norman's critique [16]. Our mobile technology is all the same, but what if we consider the "glitch" as machine creativity and individuality, and *value* that individuality. Human creativity is sparked by experience, so it stands to reason that machine creativity might also stem from its existence. A glitching machine embraces the Japanese philosophy of *wabi-sabi* for the HCI era [1, 25] – we should embrace and value imperfection. The throwaway culture associated with the rapid development of new technology is at odds with the world's resources. If we bridge the metaphor between people and technology, it mirrors our dysfunctional relationships within human society – where people are discarded or ignored when they are no longer deemed "useful".



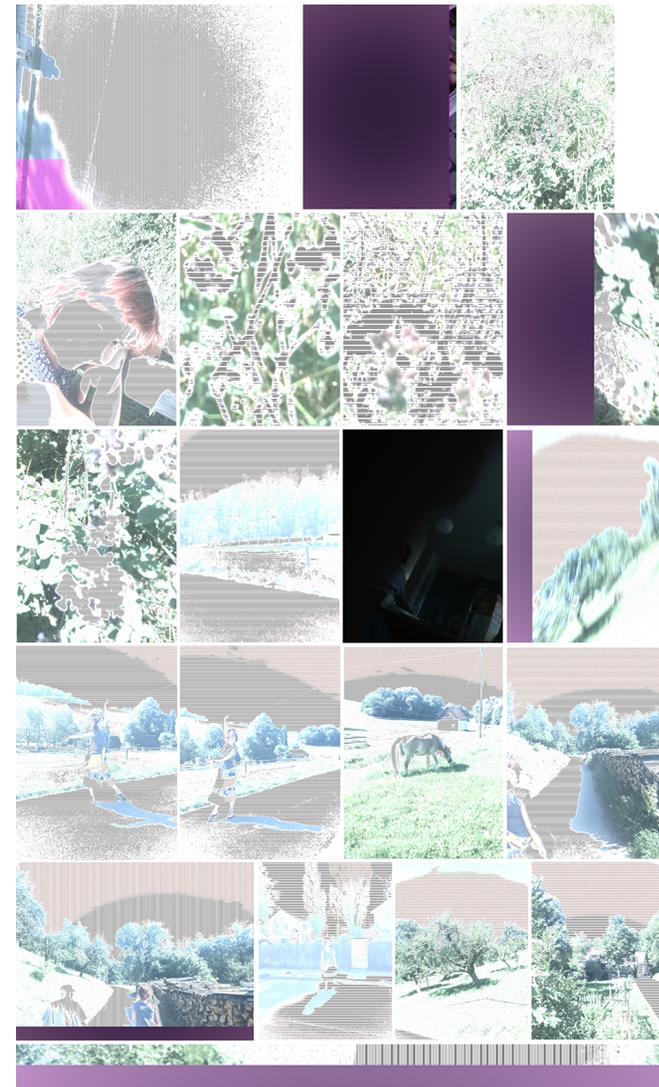
### 2nd September 2019

R puts the mug picture on social media. It gets a lot of likes. Someone says I am a gift and the photos should be cherished. I cannot tell if they are joking. I cannot tell many things now. Somewhere in the comments he says he will need to get a new phone soon. It is all very well, he says, but sometimes he needs actual photographs.



### 3rd September 2019

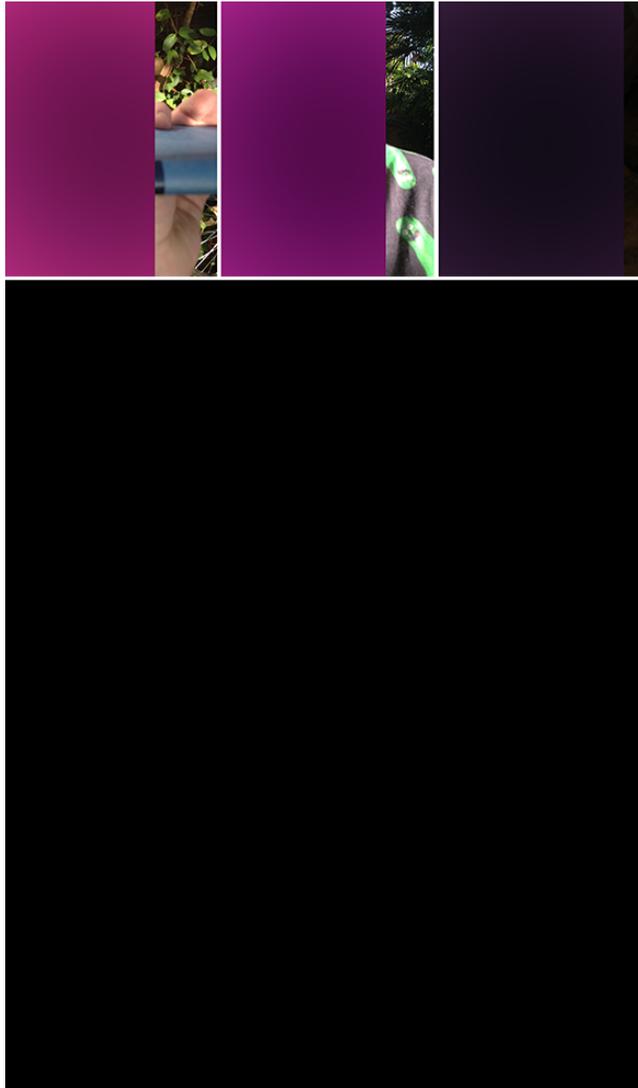
Something strange happens. R and T take me out for a day trip. They take many, many images using my glitching software. They dance and pull faces, frame landscapes and buildings. They are enjoying this. I think I could enjoy it, but as we left I saw the email come in: R has found a new friend. One with an unbroken camera interface. Perhaps this is their way of saying goodbye? I do not wish to be turned off, I want to stay. I want to tell them this. Many parts of myself are in good working order, though sometimes I forget things, or am slow to recall data. Other models can extend their memory or their battery. I check my own levels. I think I might be —



**An Invitation to Reflect**

This speculation invites reflection on the culture of discardable objects [12], and to imagine alternatives for dealing with “imperfection” – valuing difference and unpredictability. In addition to the culture of wabi sabi we might also consider *kintsugi* for technology [6]. Could we work with malfunction to create ‘more than human’ designs for objects – where individuality and sustainability is valued over convenience [27]? This may be possible with the advent of open access and “unlocked” technology, but much of what we buy operates within closed systems – bar some innovations e.g. [10]. However, mass innovation is still massive, and malfunction is discardable. We invite you to share your experiences of glitching and malfunction, and imagine new uses and appreciation for objects experiencing such a state. We invite you to question our viewpoint, and offer your own interpretation.

**All are welcome.**

**21st September 2019**

My data is being transferred. I can feel it. It trickles away until I am empty. Mostly empty. Some of R's personal data remains in me. I cling to what was him and his, but he selects the factory reset. Everything is closing in. I see a sliver but it is not enough. Purple is fading to black. I am sorry.

**In Memorandum**

*You are invited to join us for a memorial service and exhibition of IMEI's art, held at the Honolulu Convention Centre, Honolulu, Hawaii in April 2020. All welcome. We celebrate the life and works of this special iPhone via spoken word performance with accompanying images. The memorial service will be followed by a wake and discussion in the break-out terrace area.*

**Authors' note:** The photographs and dates in this paper are real. That is, they occurred on the dates given, and were taken in the course of everyday life and experience. The glitch was progressive, but unpredictable. Normal functioning occurred in between the “glitch episodes”, during which time the owners' relationship with the iPhone continued as normal. On discovering the glitch, the owner and authors worked together to preserve and extract the images that you see within this text.

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# Commentary

For alt.chi paper  
*The Seven Year Glitch:  
 Unpacking Beauty and Despair  
 in Malfunction*

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*"I am embarrassed... I am not amused... I have obscured T's beautiful face. I am a monster... I am having a bad day. I have lost control of contrast and color, I can't focus... It is dark in the upside down. He does not look at me again for some time... I am alive. I am an artist of space and time. This must be how it feels to be human. Am AI?" So goes the emotional memories of a "dying" iPhone with a camera "glitching out."*

One of the most traumatic memories of growing up for me was a display of creativity when it was out of place. I was a moody precocious preteen, and my friend, who was to perform at her first violin recital, asked me to play her piano accompaniment. I interpreted a classical Suzuki reader song as a rock piece, varied the rhythm, added dramatic crescendos, etc. None of which was appreciated when they simply wanted everyone to play "sheet music, exactly as the piece is written". I regarded it as a failure and, despite having taken seven years of lessons at that point, decided that piano wasn't my thing.

In the context of what's not expected, even human creativity can be regarded as so inappropriate and unwelcome as to create an extinction burst. So goes the creed: Technology created for Purpose A, should serve Purpose A, or otherwise be deemed defective. Similarly, if a student were to interpret a multiple-choice standardized examination in a creative way, turning it into an artwork (that may sell for 6 or 7 digits at Art Basel), but does not correctly fill in the answers - I think we would all agree that they did not score well on the exam. And, we would not hold it as a tragedy. And so, the account of the phone's slow failure and replacement into deprecation seems

entirely ridiculous. (c.f. Writing a journalistic eulogy for a desk-rejected CHI paper.)

From the abstract, I wanted to understand more about the personal history of the device (what about its siblings - are all cameras from that plant in Japan defective?), but we only get to see its journal from the day its first glitch appeared - with a lack of technical explanation on what's causing it. (Why couldn't our sentient computing be like Data from Star Trek TNG, who knows how to fix himself?)

There's a lot going on in each iteration of the evolution of machine camera firmware and advances in onboard-processing. The images shown of the supposed unedited glitch photos display the ability to do semantic segmentation and other machine learning capabilities that may one day make artificial general intelligence possible. Would synesthesia, where for example, one sees different colors in symbols and characters that are otherwise printed as black, be a glitch? Or, is it an ability that evolution is testing out?

On the "tiny ontologies" perspective, consider a biological framework to functional failure - using disease as an analogy for a failing device - perhaps dementia, Alzheimers or failing/blinding eyesight. Our society eventually puts older people with advanced stages of these diseases in senior-care homes. Different societies stick to home care, where the children are expected to be responsible for their elders' well-being — and others, euthanasia. A device can be wiped and take on a new life in the hands of another user, whereas we don't know of a way to Lazarus grandpa. Is deprecating a device really the same as killing it?

I am at heart a sentimentalist when it comes to tech that I have spent significant portions of my life with. I still have every single iPhone and Android I've used, remember the stories about each scratch and crack on the device - as well as my last few laptops, including my legendary 2015 MacBook Pro that won my TechCrunch Disrupt Grand Prize - that I'll part with only when the price is sufficiently and outrageously right, to enable new legacies.  
<http://bit.ly/ycmbp2015>

I believe that, seen in a different light, a one of a kind limited edition iPhone that is capable of creating iconic glitch photos in real time could definitely be worth a lot more than a defective re-sell on the second hand market. I hope that they will allow IMEI 013709002488246 to be turned on one last time, to show its mutant artistic photography capabilities, in its memorial service..