Cart(ont)ology: Mapping Self-as-Network in Three Carts

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Abstract

We live in a networked world to which we find ourselves entirely ill-adapted, clinging to outdated means of perceiving and understanding our environment. Part art intervention, part philosophical project, cart(ont)ology proposes the convergence of cartographic and ontological approaches to the question of being/becoming. It seeks to account for both individual entity and its networked presence in a single discursive movement. Through the development of three interwoven artworks – a pushcart, inventory-qua-cart, and PCBs-qua-cart – the author explores how we might engender a network sensibility in ourselves which encompasses our relations with not only people but also machines and objects, and which renders us better adapted to act within our networked existence. Embodied across these three scales, the physical carts created serve as abstractions through which to understand networked relations from the local context outwards. They are also a performative investigation into how we might engage in a radically active receptivity as a means of network-oriented perception, encounter, and exchange.

Keywords

research-creation, performance, complex systems, networks, semiotics, intervention, assemblage, ontology

A Crisis of Networks

Networks aren't what they used to be. Despite decades of post-structuralist semiotics, we remain uncomfortable with the privileging of process over object, and networks have been co-opted from the notion of a mutable set of relations to nothing more than a large and interconnected but fundamentally stable structure. Christopher Kelty writes:

> "At the time, the word network [...] clearly meant a series of transformations [...] which could not be captured by any of the traditional terms of social theory. With the new popularization of the network it now means transport without deformation, an instantaneous, unmediated access to every piece of information. That is exactly the opposite of what we meant." [1]

Of course this doesn't prevent us from living in them, and living in them seemingly well. We are not ignorant of the value of networks; rather, in the words of theorist Anna Munster, we suffer from "network anesthesia – a numbing of our perception that turns us away from their unevenness and from the varying qualities of their relationality." [2] We ignore the ever-changing forming and reforming of relations which make networks dynamic entities. [3]

Above all, we neglect to address this dual-edged notion: it is the activity of their individual nodes that keeps networks in constant flux, and yet if the network around us is constantly changing, so must we be by extension, however still any of individually may be standing.

In her work Munster proposes how we might understand networks differently. My project is similar, but ontological in another sense as well: I suggest that to better understand and live within networks we also have to change how we think about and exist within ourselves. True we are already astute navigators of networks, albeit in particular of other human nodes within networks, and we are keen theorists of the powerful potentials of complex systems and networked life. Yet we recognize only insufficiently how deeply and perhaps existentially we are affected by our networks, and ignore how a network-level perception might radically change the scope of human and human-object relations. Our day-to-day encounters and existence are marked by the stilted continuation of a worldview in which there is us and then there is our surrounding network and environment of people and objects and machines, to be used or modified or displaced or engaged with as we see fit.

Towards a Cart Ontology

As a counterpoint to this state of affairs I propose a cart ontology: or, what it means to be a cart. Make no mistake: remove three letters (the "ont" of the individual, according to cell biology) and it serves as a kind of cartology, as well, an emphasis on what realities about larger systems might be expressed through the local; a complementary conceptual tool to deterritorialization. Cart(ont)ology as its awkward formulation suggests is a site of slippage between the well-traversed ideas of cartology and ontology.

Mine is as much philosophical project as it is performative experiment. I suspect that we are all carts of a sort – more likely we are several all at once – and research (surveyed briefly below) in genetics, parasite ecologies, and psychology is suggesting much the same thing.

So what is a cart? Well it is mobile. Carts are meant to move through space and time, and thus in our terminology, easily enter into and out of different assemblages and relations. Carts also exist, in-the-world, as a site of contact among people and objects. In contemporary art and architecture one must never take for granted the notion of something physically existing. This material existence is

crucial as well because it prohibits us from collapsing the notion of a cart into that of a vector, or some other immaterial means of transmission.

Yet more than most things we encounter, carts are defined by their relations. Just ask Google to show you a "shopping" versus a "gypsy" cart. At what point these relations become so central as to become part of the very identity of the cart is more than a question of worthwhile debate. It is the very crux of this project.

The premise of cart(ont)ology is not that we exist both as physical and networked individuals but rather that we exist simultaneously as both individuals and networks. It is an attempt to engender an understanding of this nature as concrete, experienced reality, not merely conceptually.

This is not just about the shopping and gypsy carts, of course. Everything and everyone may be characterized by a cart(ont)ology. Carts themselves – carrying pretzels or shawarma or medical equipment or toys or people – are the most basic exemplar and the abstraction through which we can begin conceptualizing this. As the capacities of an entity increase beyond those of carts as we typically know them, through sentience to movement to decision-making, the cartology of any network in any given instant becomes more complex. But this project exists especially for human beings in all their sentient, moving, desiring decision-making, as part of an equally desirous wish to better adapt us to our own networked existence.

Why Cart(ont)ology

In what ways can we be said to *be* (synonymous with our) networks? Deleuze and Guattari have already proposed multiplicity and molecular becoming as alternative ontologies; this project theorizes a similar understanding via our networked relations. Such a multiply defined existence is not a matter of conjecture; it is not even new, although its landscape is being shaped by contemporary technologies, surveillance tactics, and biological research.

Take for example the fact that researchers have found they can identify 95% of cellphone users based on four sole instances annually of knowing a user's location at a given time. [5]. Or the alarming accuracy to which our identities can be constructed and even future life events predicted as circumscribed by no more than Amazon purchase records, Google searches, online activity rhythms: in a word, datapoints, many of them, of all kinds. [6] Are these examples of our identity being externally assayed based on our networks, or ways in which our networked self is becoming equally or more our "actual" self?

What about research into how seasonal weather modifies human gene expression? [7] The way colour, sound, and sunlight almost universally affect our eating habits? [8] How parasites and bacteria alter animal behaviour? [9] How famine turns grasshoppers into locusts? [10]

What cart(ont)ology contributes to the theorizing of ontology is a reflexive gesture: remapping the self-as-network back onto the self-as-entity. It presumes that there is a direct relationship among nodes in an assemblage or network (insofar as the existence of relations is likely the

criteria that compelled us to define some set of entities as a network to begin with). Let us also postulate that a network is characterized exclusively by the positioning of its nodes, albeit not necessarily their geographic or spatial positioning but rather any descriptor of its edges and relations that makes sense to apply. For our purposes there need not be any history to a network, other than the latent history which led to this configuration being precisely as it is now. The networks' possible future states are informed by its current configuration and the relatively imperceptible (virtual) capacities of each and every node.

From here, the experiential component of cart(ont)ology suggests that it is possible for each node, by virtue of its immediate access to its surroundings, to literally perceive, feel, or absorb information about the network's state, at potentially higher levels of abstraction than we traditionally attribute to perception (but ones which a few examples will show we do not typically exclude from it, either). This is perception, as Anna Munster describes it, as "a making of the world and of sensing itself, as we go." [11]. Anything existent within the immediate network is available to be perceived or acted upon, informing the actors' actions and the network's future. Likely much of it is already doing so, without the actor's realization, which is precisely why I suggest that beyond simply being in-a-network, a given entity *is*, in some ways, its network.

Also, because networks overlap, this perception may effectively extend beyond the immediate network insofar as each individual node exists at once as individual actor and an expression of (its own) network conditions.

It is crucial to note that cart(ont)ology is not restricted to human actors: networks conceived in this sense necessarily include people, objects, plants, machines, bacteria, etc. The individual-as-network aspect of cart(ont)ology is influenced by Jane Bennett's object vitalism, wherein "the concept of *agency* [...] becomes distributed across an ontologically heterogenous field, rather than being a capacity localized in a human body." [12]

At least in many circumstances, human nodes' capacities for action tend to outnumber those of their non-human network neighbors. Humans are also the only ones who might be reading this essay. Thus cart(ont)ology, despite urging a network-level perception and process of decision-making, is fundamentally human-centric in situating its impetus upon human actors. It inquires how we might act upon this object-oriented understanding to engender in ourselves alternative perceptive approaches that render us better adapted to life as networked beings. What precisely this might look like is the subject of my artistic research.

The Cart(s)

And so I am building a cart. Not one, but several carts! With a post-structuralist wolf in each. Many networks – and all self-organized critical systems – have the mathematical property of being scale-free, following a power law irrespective of their size or accretion. Well so do carts! Or, better said, so does the abstraction of a cart:

so does a cart ontology. To arbitrarily adopt the metric system as a means of illustration, entities that I would argue function like a cart at different scales might include:

- meteorites (kilocart)
- spaceships, urban plans (hectocarts)
- caravans and markets, airplanes (decacarts)
- my cabinet-of-curiosities street peddler cart (base)
- inventory (decicart)
- printed circuit boards (centicarts)
- altered genes (millicarts)

I am building three of these, from the street cart down. The contribution of my carts as physical objects is in the vein of art as research practice, as elaborated upon by Graeme Sullivan among others. [13] As such my philosophy of cart(ont)ology is still very much in process. At the time of writing I believe that each of these three objects already highlights different elements of cart(ont)ology; several rules will make these ramshackle real carts further exemplary of their cart abstraction.

First, the large street peddler cart (which houses the others) will not "know" or broadcast its location. This is an aesthetic not obligatory decision. It provides a space through which the networked reality of the cart can be emphasized over its physical one, since the latter of these is not about to be missed anytime soon, measuring about five feet long and three feet wide and set on rather prominent wheels. Furthermore, unlike its shop, food cart, and gallery brethren (especially mobile ones) it lacks an online presence of its own authorship and so can be experienced only through some degree of directly networked relations: through what I or its visitors have to say or show of it. There is also a mythology regarding the cart's inability to know its own location.

Speaking of which: fictions are an important aspect of my project because they expand one's understanding of the potentialities present in a given context. In the words of critic Steven Shaviro, writing on the philosophy of Alfred North Whitehead:

"Whether true or false, delicious or repugnant, a proposition points to a *potentiality*. That is to say, propositions are neither actual nor fictive; they are 'the tales that might be told about particular actualities.'" [14]

In network terms, propositions (of which mythologies and fictions are instantiations) expand the (virtual) capacities to action of the node which has encountered them. How this affects and may be understood through cart(ont)ology is among the questions I will be exploring.

Second among my rules, the cart inventory must be continually updated, to the point of absurdity if possible. Everything *is* in fact always changing. If it is impossible enough to keep track of amidst our many trillion cells and surrounding molecules, it becomes downright inconceivable as soon as we remember we are an open not closed system and part of networks whose other components are also always changing. The absurdity of the inventory highlights the relative reasonableness of the proposition I am making: that we actively absorb these changes not through conscious observation and recording

but rather as perceptions and affects, which may be acted upon through lived experienced.

Printed circuit boards, the centi-scale of the project, are already exemplary of a cart(ont)ology for the ways in which they house a regulated system but are designed to interface with the local environment through the input or output of signals. Their cart nature will be enhanced by making them mobile, by activating them atop small robots and through their sale as products.

Technically what else is on the cart makes little difference for my performative experiment, and indeed the most important feature is that these contents can change from day to day or even minute to minute. Nonetheless I have chosen the first collection of works quite specifically to highlight tensions between the physical and networked (virtual) body, whether these be of humans, objects, or locations. This is for two primary reasons. One, since I am situating this cart not only in the world but also in the context of "art", for the latter's sake the objects onboard might as well reflect the project's larger concept in the meta- approach of which contemporary art is so fond (and perhaps this also gives it a certain elegance). Two, I think I believe in cart(ont)ology and yet in my everyday existence I typically fail to feel like a cart. By exploring the tensions across the tripartite existence of biological/physical being, that of self-as-node-in-networks, and that of self-as-network, I hope to engender in myself the approach to networked existence I am propounding here.

One side of this largest of my carts is thus devoted to a project which collects breaths: both their forms, generated as a 3D model from sensor data, and then saved or 3D printed in ceramic, and the expired air, collected in small vials and labeled with name and mood data when granted. On the other side several works more directly juxtapose physical and virtual or networked bodies. Among these is a set of vessels, composed partially of local clays, whose shapes reflect the horizon line of the landscape where the material was collected. A separate series of prints compares the actual location of an entity (usually myself) to the location that would have been interpolated based on a triangulation of related data points. And so on.

Cartology Through Radical Receptivity

Thus far I have elaborated on the ways in which these three (or more) actualized cart forms represent and allow me to further investigate the idea of cart(ont)ology. They are all meant to change over time, to move or be moved to different settings, and to be encountered by different people: changing circumstances which I undertake as experiments into the nature of carts.

In addition to describing contemporary states of being/becoming, however, cart(ont)ology should propose an alternative means of being-in-the-world which takes optimal advantage of the peculiarities of the networked multiple self. The conceptual crux of cart(ont)ology as lived experience is a notion I refer to as radical receptivity. It owes much to Alfred North Whitehead's philosophy in

its conceptualization, again encapsulated here by Shaviro:

"Activity, no less than passivity, is a dimension of receptivity itself. Every experience, every feeling, is at one and the same time an 'inheritance' from the past and a fresh creation. And both of these dimensions are contained within an open affectivity." [15]

Radical receptivity involves opening oneself to the network aspect of being. It urges us to recognize that we are constantly being affected by everything with which we are in direct contact whether the chemicals in our blood, the knickknacks on our desk, or the people we're communicating with. As suggested above, by extending this notion out through several degrees of overlapping networked relations, we may be said to be more or less directly affected by even non-local conditions.

Radical receptivity is necessary because complex circumstances increasingly render linear thinking and other historically useful approaches inadequate. This is an ontological problem, not one of a lack of data. Manuel DeLanda elaborates:

"The reason why the properties of a whole cannot be reduced to those of its parts is that they are the result not of an aggregation of the components' own properties but of the actual exercise of their capacities." [16]

Capacities which are always in flux, whose precise outcome can never be known, merely statistically estimated. This may be sounding familiar. After all, a very basic observation of complex systems is that even deep knowledge about the workings of individual components is insufficient information to be able to predict the emergent properties of the system as a whole.

The privileging of man and his ability to impose his will on his environment is part of a distinctly western philosophy and worldview, if not also part homeostatic drive. [17] Yet now more than ever, man finds himself caught in the throes of enormous networks where it would be impossible to know all of the individual actors and nodes in most cases, let alone the landscape of an entire system. As non-omniscient human beings moreover with our own constellations of vested interests, we cannot effectively assess these systems in the ways heretofore favoured, much less make predictions about their futures or our futures within them. And yet much of human society is dedicated directly to these efforts. Cart(ont)ology and radical receptivity seek a way out by encompassing within ourselves our surrounding networks, in all their flux.

What does radical receptivity look like in action? This is where the philosophical project ends and the art-as-research-process begins. The streetcart I am constructing is a traveling incubator full of objects and fictions. As I reinvent the mythologies of the cart and objects onboard, as my collection of archived breaths grows, as I engage with the public about these projects and ideas, as I move to diverse locations: the introspectively performative aspect of my project is that I will be actively attempting all the while to engage in a praxis of radical receptivity. I hope to explore its contours, define its practice, map its limits, and suggest its potentials for a concretely networked existence.

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