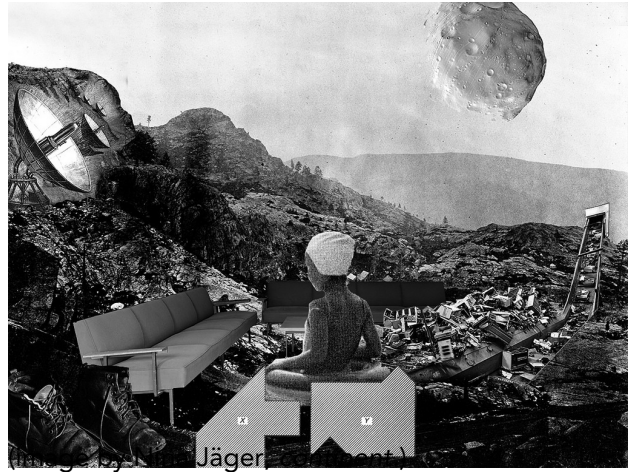


Jennifer Gabrys

A Continent. Inter-view



Jennifer Gabrys is Reader at the Department of Sociology at Goldsmiths, University of London, and Principal Investigator on the European Research Council funded project, Citizen Sense.^[1] Examining the intersection of environments and communication technologies by deploying theoretical and practice-based work, Gabrys has developed a remarkable body of research that runs from Benjaminian elaborations of rubbish heaps to self-critical and DIY/DIT (do-it-yourself/do-it-together) engagements with IoT (Internet of Things) technologies. Her publications include the book length *Digital Rubbish: A Natural History of Electronics* (University of Michigan Press, 2011); and articles like "[A Cosmopolitics of Energy: Diverging Materialities and Hesitating Practices](#) ." *Environment and Planning A* (2014). Her most recent monograph, *Program Earth: Environmental Sensing Technology and the Making of a Computational Planet* (2016) is now available from University of Minnesota Press.

[cc.cc: How did you get here?](#)

JG: How did I get to this point in my trajectory? How did I arrive in Berlin on this latest adventure? This question raises all kinds of points about trajectories, about migrations. I am from the United States, and I have moved to London where I work at Goldsmiths doing a whole set of practice-based research projects. I am here in Berlin now to discuss some of that work, on citizen sensing, environments, and technology.

I have also practiced landscape architecture in the States, an experience that provides a backdrop for me in discussing the technosphere, a concept which threads together many interests that I've had for a long time related to the environment and technology. These topics all continue to be attractors that I am continually circulating around.

cc.cc: What technical systems are operating on us right now?

JG: I think systems is an interesting word, but I inevitably would want to unpack that word because it is so tied up with cybernetic logics. What do you mean by systems? Systems can often seem to be these totalising structures. I am working with Whiteheadian philosophy that doesn't necessarily think of overarching systems, but rather thinks more about concrescences^[2], propositions, and speculative adventures.

Inevitably, while things might sediment or concretise into systems of interconnection, I would hesitate to refer to them in the usual overarching way, as definitive structures. I think systems can have a very deterministic logic when describing practices, and ways of life. So I use the term 'environment' instead, as a way to circumvent the logic of systems a bit, and to think about how environments become particular kinds of inhabitations, as it were. Actually, this is a topic I take up in my book, *Program Earth*, and there is a tiny bit about that in my talk.^[3] But I am slightly wary of thinking about things in terms of systems, because of the totalising logic that potentially comes with them.

cc.cc: This runs somewhat in contrast to the technosphere as a concept, because it does not describe concrescences, but, as Peter Haff describes it, is something that can be viewed as a top-down technological meta-system.

JG: I would not disagree with what you say—as I was listening to Peter Haff's morning discussions in "Triggers,"^[4] I realised there are many points of contrast, and it will be interesting to see if those come out later today since we are on the "Datum I: Self-Fantasy: On the Autonomy of the Technosphere" panel together. I hesitate to think of something as totalising as a Technosphere, although I very much take his point that technology has become enfolded into our practices, ways of life, such that we can almost think of it as a geological layer, or stratum, or process. I find that quite interesting.

Trying to conceptualise a complete and total sphere is potentially quite limiting. In the morning discussion, I also detected a need to think about process as part of that, and how it may not be such a totalising system. There are many different ways

in which technologies play out; that is one of the things that we are looking at in the Citizen Sense project and in my work with environmental sensors. You can not just make blanket statements about environmental sensors, mapping the globe in particular ways, because they are used for different things, and in different systems or in different environments. I would hesitate to use the term technosphere so liberally.

cc.cc: It seems people are often referring back to Peter Haff, asking 'what he originally meant by this term—the technosphere'? This is itself a kind of mode of thought that lends itself to totalisation. The concept becomes a singular 'something' you need to point to, or hang everything from.

JG: Inevitably, it is a term that is proliferated in many different contexts—as I was looking up technosphere on the HKW Twitter feed; many different people are using it in different ways. There is something interesting about that, trying to define a "sphere" of the "techno"—is there such a thing, or is everything shot through with the techno? Is there such a thing as "techno"? When can you call something a technology? Is it an artefact, a device, a set of relations and practices? Is it a way that something starts to sediment over time, so that it has a whole set of practices and affordances bound up with it? The other thing I look at is electronic waste: does technology still count as a technology at *that* point? At the residual end of technology, where it may no longer have a function, but still has a set of material implications and impacts?

It is interesting to think, "At what 'point' would you even begin to identify the technosphere as the technosphere?" Peter was talking about the free flow of information as part of that, but I am looking at the blockages and the disruptions and the points where information might even fail to have the effect it is meant to have. Rather than a free flow, it is pools and eddies, backroads and garbage dumps, Superfund sites^[5]—all kinds of ways in which the Technosphere is *not* a singular entity.

cc.cc: What pieces of the technosphere do you have on you?

JG: What counts as technology? Over lunch someone said something about "not liking technology," and I did not say anything, but I thought that is very interesting because if they do

not like technology, do they not live in a house, do they not use indoor plumbing, do they not have lighting, central heating? We have come to think of technology now as primarily digital—fast-paced, moving digital technologies, information, big data, and all the rhetoric that goes along with those things.

One of the reasons I look at electronic waste is also inspired by Walter Benjamin who thought about technology not as something that is always on the leading edge, but as something that inevitably becomes a fossil, and that loses its initial promise of realising some kind of utopia. In its fossilised state, it looks more like rocks or trilobites or sedimented coral. There is no longer this assumption that technology is the most future-forward thing. We are then able to look at technology in a broader sense: as all of the artefacts around us that are organising environments in particular ways, that we are entangled with, and that form the kind of subjects we are, and the relations we have with other subjects if we acknowledge them, such as more-than-humans. Simondon also asks what the human is—that we are also something that's always in process, along with technologies.

If I had to pick a technology, it would have to be with that in mind. So, I would say my shoes, because I walk everywhere, and I think my shoes are the most interesting technology I have on me right now. I could do without my *laptop*, but my shoes...

cc.cc: What is the technosphere?

JG: As I understand it, there is a reference point being used at this event, which is Peter Haff's work, and he's a geoscientist—he's thinking about technology as a kind of geological layer, bound up with humans and all the rest of it. With my earlier comments in mind, questioning the notion of a sphere, of an overarching system, I would say we need to rupture a notion of a singular technosphere. We need to think about these multiple environments where technology is playing out, potentially creating localised, distributed, and other kinds of technical relations. We should be thinking about the technosphere in more distributed ways, in more multiple ways, in more relational ways—inevitably, in more processual ways.

cc.cc: Please pick one image that resonates with your idea of the technosphere.^[6]

JG: The satellite farm. This is where my book *Program Earth* starts, from Sputnik and thinking about remote sensing. In this book I quote Marshall McLuhan, and I paraphrase here, "when Sputnik was launched, ecology was born."^[7] He had this understanding of the notion of Earth systems as very much being bound up with particular communication technologies, and ways of sensing the planet. He wasn't even necessarily talking about remote sensing in a scientific sense, but more in relation to a popular imagination—in a displacement of planetary engagement into an outer orbit, and looking back on the earth as a system to be managed.

This is where I begin my *Program Earth* study, not because it is a study of satellites, but because it begins with the notion of the Earth as an *object to be managed*—that sensing is a tool for doing that, and that sensing has come down from outer space to the ground, and is now distributed through multiple different environments. I guess that would be a way of thinking about the technosphere, with my caveats in mind of what the technosphere is doing.

cc.cc Notes

[1] EDITORS' NOTE: "The project, which runs from 2013-2017, investigates the relationship between technologies and practices of environmental sensing and citizen engagement." More at www.citizensense.net.

[2] EDITORS' NOTE: "Every actual occasion receives data from every other actual occasion in its past by means of prehension. Whitehead calls the process of integrating this data by proceeding from indeterminacy to determinacy 'conrescence.' [...] In human beings (and all other sufficiently complex animals), the conrescing structure of the dominant occasions entails that consciousness is a derivative form of experience that only appears in the latest stage of conrescence. [...] A conrescing occasion is most heavily influenced by the preceding occasion in its immediate past and the determinate

character of this occasion limits the possibilities of the present." J.R. Hustwit. "Process Philosophy ." *Internet Encyclopedia of Philosophy*.

Global Theater in Which There Are No Spectators but Only Actors," *Journal of Communication* 24, no. 1 (1974): 49.

[3] EDITORS' NOTE: Gabrys is referring to her presentation on the panel "Datum I: Self-Fantasy: On the Autonomy of the Technosphere," Friday, 2 October, 2015. Video documentation of the panel is available at www.hkw.de/en/app/mediathek/video/43981.

[4] EDITORS' NOTE: Video documentation of Haff's talk is available at www.hkw.de/en/app/mediathek/video/43982.

[5] EDITORS' NOTE: "Superfund site" is a metonym for places that are severely contaminated by hazardous waste. The phrase refers to the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), a United States federal law designed to clean up sites contaminated with hazardous substances and pollutants. See www.epa.gov/superfund.

[6] EDITORS' NOTE: During the discussions, interviewees were asked to pick from a set of images. A rather random collection of different phenomena that served as a prompt for thought on forms of appearance and the visuality of the technosphere. You can view the set here www.flickr.com/photos/57221817@N07/25411316686/in/photostream. The discussion here refers to www.flickr.com/photos/57221817@N07/25141413350.

[7] EDITORS' NOTE: The full quote reads, "Perhaps the largest conceivable revolution in information occurred on October 17, 1957, when Sputnik created a new environment for the planet. For the first time the natural world was completely enclosed in a man-made container. At the moment that the earth went inside this new artefact, Nature ended and Ecology was born. 'Ecological' thinking became inevitable as soon as the planet moved up into the status of a work of art." Marshall McLuhan, "At the Moment of Sputnik the Planet Became a