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# Data, Now Bigger and Better!

# **Data, Now Bigger and Better!**

Genevieve Bell, Tom Boellstorff, Melissa Gregg, Bill Maurer, and Nick Seaver

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from humanities and social science disciplines. The references to genre, rhetoric, aesthetics, and etymology throughout this chapter reveal just some of the human biases that inflect our perceptions of truth. The vocabulary of post-structuralism, the philosophy of ethics and claims for accountability cannot be wished away by the leap of faith suggested by data omniscience and what Bell calls its new priests and alchemists. Remaining cautious of the benefits of size and scale, and adding vibrancy to the concept of data, we will be better equipped to know the difference between a gift and what is given.

# **Principles of Descent and Alliance for Big Data**

Bill Maurer

ping to monitoring their own or others' vital signs, the

As people make use of the Internet and mobile computing, doing everything from reading to shop-

human and the computer, working together, generate a wealth of digital information, "big data," traces of physical and digital interaction and activity. That data in turn creates an economy. What kind of economy is it? What are its signal organizing features, its constituent elements? Economic anthropology from Karl Polanyi to Marshall Sahlins opened the conceptual horizons of "the economy," challenging classical and neoclassical claims about the primacy and universality of the market. Ancient states simply did not have markets, but rather state-centered systems of tribute collection and redistribution. So-called simple societies around the world were based on reciprocity—the exchange of "gifts"—through which boundaries between groups were forged and sundered.

The debate in the early 21st century about the data economy wavers between market metaphors and practices, as well as arguments about redistribution and reciprocity. As we can see in this collection, industry professionals have absorbed *The Gift* and have even taken a page from feminist economic geographer J.K. Gibson-Graham (the pen name of Katherine Gibson and Julie Graham). They have read their Marx and Adam Smith, too, bits and pieces, at least. Patent law and business models alike demand that they attend, and quickly, to the sorts of relations their inventions are helping to create through the creation and exchange of big data.

The internet guru turned critic Jaron Lanier has been at the forefront of thinking through the implications of these relations. Who Owns The Future, his 2013 manifesto, is a controversial contribution to the conversation about the new economy of data, and is a useful entry point for a discussion of the kinds of persons and properties inhabiting a world of big data. It proceeds from a particular assumption about the relationship between property and human dignity. The notion of property with which Lanier begins allows him to tell an original primitive accumulation story: the Googles and Facebooks of the world—he calls them "Siren Servers"—are enclosing the commons, luring us to our own evisceration while expropriating us of our data.

I like the argument. I really do. There is also a comfortable familiarity to the story he tells. However, it leaves unaddressed the nature of the data we and the Siren Servers produce in digital networks. My data does not exist without the intercession of the Siren Servers, and the Siren Servers crucially depend on their coproduction of data with me. Lanier's liberal and

liberationist manifesto about property does not deal with the profound implications of this relation. Nor does it speculate on what kind of relation it might be, or how it might be performatively enacted or reenacted. Anthropology has as long a history of speculation on such relations as it does of rethinking the economy. Kinship theory, differentiating relationships of generation and descent from marriage and alliance, may provide alternative resources for speculating on data economies.

What if, instead of living through a moment of enclosure and primitive accumulation, we were witnesses to a new era of assisted reproduction, the creation of new beings, multiple and varied, through new kinds of relations of descent and alliance? My conceit is that the creation of new economies of data is like the Baby M case, which, in the late 1980s, began to pull at the fibers of Euro-American parentage by dissociating egg mother from birth mother, leading to questions over the status of who conceives, and in what sense, mentally or physically, and who carries to term? Questions of ownership are pushed back; questions of relation come to the fore.

Lanier argues that nanopayments will ensure human dignity in the digital economy. The central proposition of *Who Owns the Future* is that the political economy of social media and networked computing depends on the extraction of free labor from users, which creates a skewing of reward for effort—a star system, in which the few benefit, and benefit enormously, rather than a normal distribution in which people benefit according to their contributions to the collective endeavor we call the economy. One of Lanier's examples is Instagram, the photo sharing service, which sold to Facebook in 2012 for \$1

billion dollars. At the time, the company employed only 13 people. Lanier writes:

Instagram isn't worth a billion dollars just because those thirteen employees are extraordinary. Instead, its value comes from the millions of users who contribute to the network without being paid for it.

Lanier invokes a principle of "digital dignity" to counter this unfair arrangement. In a world of digital dignity, he writes, everyone would receive a small amount of monetary compensation, a "nanopayment," any time their contribution of data "measured from that person's state or behavior" contributes to the generation of value. The nanopayment would be "proportional both to the degree of contribution and the resultant value" (his emphasis). In a world of digital dignity, that data would be the commercial property of the person "behind" it: Lanier uses the metaphor of data as a mask, behind which there is a "real person." Making the data the commercial property of that real person makes it more difficult to deny that there is always a person behind the mask, and highlights that human beings make big data, not the other way around.

Commentators have taken him to task for his next assumption—that monetizing personal data will grow the economy, whose digital manifestation depends on the extraction of data for free from its users. A writer for *Forbes* noted that all that providing nanopayments for data would do is increase the measurable economy, the calculation of the GDP, but it wouldn't necessarily actually affect people's ability to consume. Still, as a writer for the *New Republic* put it, Lanier is criticizing the business models of Silicon

Valley which, through "dishonest accounting" allow the current state of affairs to continue: unremunerated data collection from millions of users whose activities add to the value of if not outright constitute the "big data" digital economy. There is an economic case for nanopayments—rejected by many commentators—but also a justice case, like the "Wages for Housework" campaigns of the 1970s. Getting the accounting right aligns for Lanier with "dignity." In this assessment, Lanier is very close to Aristotle in Nichomachean Ethics, for whom justice was a matter of proportionality, an "equality of ratios," as achieved with money as a medium of exchange, while "the unjust is what violates the proportion. Hence one term becomes too great, the other too small, as indeed happens in practice; for the man who acts unjustly has too much, and the man who is unjustly treated too little, of what is good."

Lanier draws together money, accounting and people, for an accounting as if people mattered. It is not surprising to this anthropologist of money that money itself occupies a central chapter in Lanier's book. There, consistent with the notion of dignity and inner worth of the person, Lanier exhorts his readers to remember that money is a memory device—he does not cite the famous anthropologist, Keith Hart, who made this argument the centerpiece of his oeuvre, nor does he cite the groundbreaking work of archaeologist Denise Schmandt-Besserat, whose discoveries involving artifacts from ancient Mesopotamia helped seal the deal for the origins of money in record-keeping practices (though he mentions the artifacts from which she drew her conclusions). Historically, money was a way to record and remember debts. It was a solution to an accounting problem, not a commodity in itself.

Modern money, however, passing from hand to hand, anonymously, lulls its users into forgetfulness. We become ignorant of the true source of money's value: ourselves. It is a small step, then, from the belief in the gold standard to digital money schemes like Bitcoin (which Lanier does not mention), which partakes of "the fallacious hope that information technology can make promises on its own, without people."

There are historical echoes and analogues of dignity and humanism. This is an unabashedly humanist text, and there's nothing wrong with that from my point of view. Indeed, like David Graeber's *Debt*, which Lanier invokes in the money chapter, Lanier's book is important for popularizing some key ideas in alternative theories of economics, ideas which have been gaining some traction in political, activist and intellectual circles. It also, by drawing attention to the human in the digital economy, spotlights the fact that value is only created through relationships. It is not some free floating, transcendent good, but something actively forged, debated, built by people living together with each other. This is always a useful thing to be reminded of.

Yet the concept of the human in this book is impoverished. It is also Eurocentric. The notion of dignity Lanier advances sounds like it came straight from Thomas Aquinas. The idea of a nanopayment sounds like a "just price" from the Salamanca school who, as Taylor Nelms has pointed out, not coincidentally were debating the status and property of the newly discovered peoples of the Americas.

Now, Lanier may intend these echoes. We are like the serfs of the feudal age whose digital labors are expropriated by our overlords Facebook and Google. Or, we are like the Indians of the New World, our

properties stolen from us, our persons soon to be enslaved or annihilated.

As someone who has been making the case for a while that that contemporary economy we call capitalism has a lot of non-capitalist elements central to its operations, I am sympathetic to the argument, and feel gratified any time arguments for the neo-feudal character of the economy make it into the wider public debate. As someone who takes pains to demonstrate the public infrastructures supporting a great deal of private wealth creation, I appreciate Lanier's discussion of the role of the commons and the dangers of creating closed loops that channel economic and social activities into one, privately held set of rails (he contrasts Apple with public rights-of-way).

But Lanier is rehashing an old, old story. A story about human dignity in the face of the enclosure of the commons. A story about the private property that inheres in the human person and its penumbra created by its labor. Lanier is calling for a liberal revolution that would free the digital market from the "levees" currently put in place by the Amazons, Googles and Facebooks that channel the flow of information, money and labor back to themselves. Again, Lanier's term for these companies is Siren Servers, which lead men and presumably women astray with their sweet song promising efficiency, access and speed. Demanding a nanopayment is, in effect, the demand of the creation of another levee that channels value back to users/consumers. Lanier seems to be echoing Karl Polanyi, who argued that when market excesses intrude too far on human freedom and flourishing, "society" must push back, to keep capitalism human. Lanier is a bit ambiguous on whether nanopayments are themselves a new levee or create the conditions of possibility for more gradual, smoother, less concretized ones. It is interesting to me that there is a homological slippage and etymological connection in English between levee—a water-controlling embankment—and levy, a tax or a state appropriation of property in the event of nonpayment of taxes. Both derive from the French *lever*, to raise. The taxation sense of the term is the more ancient, dating to the Renaissance. The water management sense, appropriately enough, dates to the industrial revolution. Neither allows for free flow. Each could be said to be a non-market intervention in an otherwise open economy, or an economy that would be open if not for all of the levees/levies currently channeling and redirecting and reshaping resources, production, value creation and circulation.

But property is a relation. Lanier uses the commonsense notion of property as a thing. The thing in question is data. Sometimes, the thing in question, the data, is a part of us; other times, it is us. (I would note here the We The Data project of Intel Labs, but set this aside for others to comment on.) Jay MacDonald, a reporter with Credit Card News, which interestingly enough interviewed Lanier, said his first book, You Are Not A Gadget, might as well have been called You Are Data, And That's Worth Something. The image is somewhere between that of John Locke's definition of property as a thing with which I have mixed my labor (or, infamously in Locke, labor under my control, such as that of my horse or my slave, taken as extensions of my legal personality), and The Matrix, where my very body provides the energy that powers a world of machines.

**But property is not a thing.** Property, classically understood, is a relation. It is a relation between persons with respect to things. In the case of my

Google profile, the data (I will henceforth just call it "the data" rather than "my data" or "personal data" for reasons that will become clear) is in Lanier's formulation either mine or Google's, the latter having expropriated it from me. Lanier's nanopayment proposal does not expressly oppose alienation. He just wants us to be paid for it. This is the Lockean logic. The value of the data comes from what I have added to it in order to constitute it.

Data, however, needs at least two to tango. Google is not Nature. It has a secret life, after Genevieve Bell; it has a backstory that tells of its origins. If we follow the Lockean paradigm, then the data is something created when I added my labor (my "clicks," my "likes", my shopping choices, my payment information, my location) to something in the commons—to Nature. Locke was trying to figure out how to justify a world of private property in which everything had been given In The Beginning to Adam. The answer was that humanity had dominion over everything. But an individual man could only claim as his property that which he had removed from Nature and altered by adding his labor (or his horse's, or his slave's) to it.

But Google is not Nature. Google is another entity, indeed, a corporate and legal person. So, I have not added my labor to Nature, a global commons, but to a privately created and owned system. (Nature, incidentally, is not nature either, if we have learned anything from Donna Haraway, but a complex of natures-cultures. It is never simply given to "man," nor is "man" ever simply encompassed by it.) That system has considerably less value (in multiple senses of the term) without the data that I contribute to it. But I can't even contribute that data absent that system.

Would it make sense then to see the data as the co-production of myself and Google? Would it make sense to see the network linking me to Google as a site of production? or even, as a site of generation? as a marriage?

The relation Lanier wants is a "full-fledged commercial relationship" between Google and me. He wants me to have "inalienable commercial rights to data that wouldn't exist without" me. But, as I've said, the data also wouldn't exist without Google.

Often when journalists, critics or even anthropologists want to draw a distinction between commercial relationships and other kinds of relationships, they call the other kinds of relationships simply, "relationships." Recently a businessman introducing himself to me indicated that he, like me, had an interest in "culture" because he understood that there were differences between "relational economies" and "taskbased economies." One often reads or says or teaches that capitalist relations "flatten relations," the relations presumed to be fuller, more multifarious or complex before subjected to the commodity calculus, the use of money as a universal vardstick for measuring value, or the wage relationship. In an essay for Hau: The Journal of Ethnographic Theory titled "Sorting out commodities: How capitalist value is made through gifts," the anthropologist Anna Tsing writes that "[c]apitalist commodities... come into value by using—and obviating-non-capitalist social relations, human and nonhuman."

Here's how our reasoning often goes. First, we (almost nonsensically) contrast a world of relations to a world of commodification where relations are flattened or obviated. The task then becomes to excavate the relations, to show they're there, to demonstrate

their importance—or to mourn their loss. Second, we think relations are good. They are good, good, good. There is always a virtue in the relation. It is about connection, not disconnection; inalienability, not alienation; the full human, not the eviscerated serf or automaton. Third, we then make all kinds of claims about that good, relational world, generally presuming that we know relations when we see them and that what we see is self-evident. But is it?

The datas and their relations to each other and with us and the Googles out there may be far more interesting than the liberal humanist or commercial framework will allow, and may offer other possibilities for imagining a politics.

What Kind of Relation is The Data? In The Relation, Marilyn Strathern pointed out that the use of the term "relation" to refer to the "joining of persons" (originally, through marriage or "blood" ties)—the root sense of social relation—emerges in English only in the sixteenth and seventeenth centuries, right around the time of European exploration, conquest, and justifications for private property. Before then, relation referred to a narration, the telling of a story. There is, she notes, a "consistent parallel, the repeated echo, between intellectual propagation and procreative acts, between knowledge and kinship" in the slippage between conception as an idea and conception as a procreative process, between relation as a story of logical interconnection and relation as a kinsperson. That slippage became evident and consequential in the Euro-American scene, Strathern argues, when the new reproductive technologies displaced rights in a child from its (biological) conceiver to its (mental or "intentional") conceiver, from, in a celebrated legal case from California in 1993, birth mother to the couple who had contracted her to carry a child to term, who had the initial "mental concept" of the child (the judge's term) and who thus "merit[ed] full credit as conceivers."

Who has the credit for the conception of the data? Another way of posing this question is, what kind of relation is the data? Is it my child, the offspring of Google and me? Is Google the original "conceiver" and am I more like the surrogate mother? Or is it the other way around? Alternately, does conception not matter so much as the alliance, the relation forged between Google and myself through the exchange of gifts, and the resulting products of our co-laboring?

Indeed, there are multiple "datas" here and they interact. (They're not even distinct data sets, really, and I employ the grammatically awkward "datas" to refer to them.) Every time an application updates on my mobile phone, I am told which "data" the application will access. The data is a relation—a kinsperson—and it has other relations with other relations.

Our Data, Our Selves? Or Our Data, Our Children or Siblings?

What Kinds of Relations Can We Have With Our Relations? In Lanier's model of human dignity, the datas would all be taken to be extensions of my single personality. This is, as I have said, a liberal humanist model, and a Eurocentric one. But I still like it, quite a bit—don't get me wrong! Absent other alternatives, I am just fine with joining the argument for the extension of commodity relations into our relations with the datas, and holding out the hope for a more relational economy in a time to come, while continuing, also, to point out that that relational economy is already here, if we care to look for it.

I want to go all anthro on Lanier. I will do so now, fully aware that in doing so, I am committing another kind of relation-trick: that of relativism. But bear with me.

A relativist take on relations would claim: relations always mean different things. What a biological father "means" here, might not be the same as what a biological father "means" there. This is not the kind of relativism I mean, however. I remain one of those anthropologists who really does not think it is possible to write other worlds in this world—my world, the English language, the words on the page written in a particular sequence and with a particular grammatical structure and frames of reference and pragmatic cues on how to read, embodied in the very materiality of the electronic screen or physical page itself. I think the only solution to this is to try to create, or to discover, others' projects (for want of a better word), others' ways of doing and knowing that are taking place alongside our own, and to see if we can follow beside them for a while. We won't pretend to approximate, or to replicate. But we might see if along the way there are resonances we can hear that suggest other possible worlds. (Dear reader, we can take this up at another time.)

Let me postulate that relations not only have different meanings, then. They also are produced in different *practices*, practices that unfold in different *temporalities* of action, and in terms of different styles or idioms.

This is the approach taken by anthropologist Jane Collier in her analysis of marriage and inequality in non-capitalist societies. Collier did for alliance what Strathern did for descent, consanguinity and procreation. Collier began with marriage because marriage is

where relations are made and sundered and around which gifts and payments circulate. She posed three distinct models for understanding relations based on the kinds of exchanges that take place around marriage in classless societies supposedly characterized by "the gift" (thus considerably complicating what we mean by "gift"). What she discovered in the process was that things like gifts and debts, far from securing or sundering one kind of relationship, involved very different practices, temporalities and styles. I will provide just two examples. It is impossible to do them justice, but I intend for them just to get the creative juices flowing on other ways of thinking about relations. These are indeed the bloodless algebras Nick Seaver recalls in his contribution to this volume. I want to see if we can grow new meat on their bones.

In what Collier calls the Equal Bridewealth Model, exchange relationships are demonstrations of one's claims to others, which are figured through an idiom of "respect." Elders organize work, but everyone has access to the tools they need to make a living for themselves. To get married, however, you need to give gifts, and to get the gifts to give, you need help from elders. Those gifts belong to the elders, and their quality and quantity indicate their perception of the worthiness of the groom. But the gifts actually derive from the work of the elders' dependents. Elders want to accumulate a lot of dependents. One has to demonstrate respect to get respect. One does not work to get things, but to get respect, which will translate into gifts from elders to give to wives' kin. Mother/son relationships here matter because a son can appeal to a mother for assistance in assembling goods needed from elder men for gifts and, if an elder refuses, the mother can redeploy the efforts of her children away from her

husband, thus denying him a route to respect. Women are thus often seen as both the giving mother and the disruptor of social harmony.

In what Collier calls the Unequal Bridewealth Model, relationships and exchanges are demonstrations of rank. People are presumed to be born into unequal ranked statuses. Yet rank can fluctuate and is unstable, so it has to be constantly demonstrated. Marriages are key occasions for validating rank. Wife-givers outrank wife-takers, that is, a husband is always "downhill" from a wife's brother, but marriage is an opportunity to climb rank by paying more for a high-ranking bride. How to accumulate what you need to make that payment? Your siblings, if subordinate to you, can provide you with the things you need to assemble a good payment. So, the sibling set is very important but also a site of constant jockeying for position. By extension, different sibling sets are themselves always jockeying for position in negotiating marriages so that one can climb rank. If you exchange nearly equal gifts, things can remain relatively stable, but as soon as someone falls behind, he might need to borrow, pushing him even further behind. Gift exchanges are arenas for displaying rank. Sibling relationships here matter because they provide access to resources needed to affirm the entire sibling set's rank relative to other sibling sets. Gender and generation fade; rank is primary.

These thumbnails hardly do justice to Collier's models or to the ethnographic and historical material, much less the people behind the stories. And she devised other models, besides these two. Let's spin out a few implications from them. Let's take Bell's anthropomorphisms to a new anthropological level. And, again, let's imagine that we are standing in relation to

"big data" where people were in relation to the New Reproductive Technologies at the time of the Baby M case.

Are we making children with Mother or Father Google? When I am the co-creator with Google of the data, is that data our child? What kind of claim do we have over that child, and what kind of claim do others have?

It all depends on who are the "conceivers" here, but if we start from the assumption—which we can challenge later—that Google and I are the co-creators, then what? That child wants to go out into the world. To do so, it needs to assemble a gift to permit it to comingle with other data. That gift has to be a demonstration of its respect for that other data's co-creators (say, you and Google, or you and Amazon). How is it going to do that? Google and I have to determine how worthy we deem that child, and it has to demonstrate its respect for us in order for us to make that determination. Things can change over time, and circumstances matter. (One might invoke the philosopher Helen Nissenbaum here, for whom context in data relations is everything.) But our decision to allocate the stuff it needs to co-mingle with other data depends on its giving us its labor as a sign of respect, and as an augmentation of our own capital. It has to work for us. Its and our gifts thus fulfill obligations and earn respect (I am tracking Collier pretty closely here).

One could spin this out further depending on whether Google is or I am in the position of the mother or the father. Nota bene that mother and father here are social roles based on gift relationships with others, not biological "relations."

Are we the siblings of the datas, and who is jockeying for rank with whom? When lots of datas

get created with lots of other entities (Google, Facebook, Amazon, etc.) are we all siblings? What kind of claims do we have on each other and what kinds of exchanges help us assert or change our rank?

A lot depends on how we determine who outranks whom. In Collier's Unequal Bridewealth Model, marriage is where such contests over rank take place. An easy way out is to either start with me (the embodied me) as outranking all the datas, or with the corporate persons (Google, Facebook) as outranking everyone else, or as me and the corporate persons together outranking our siblings, etc. But we can certainly start to model just by tracking apps' use of the datas, how the datas enact rank relationships with each other, and the effort to raise one's position in a ranked hierarchy through things like the pushing of a platform during an app update ("upgrade now and click here to import all your contacts to Google+"). The terms themselves suggest the ordinality of rank relations: update, upgrade.

When Johnson v. Calvert was decided in favor of the "intentional" parents in 1993, a debate was launched over the status of the supposed biological facts of reproduction. Marilyn Strathern pointed out that the idea that a mental conception took precedence over a biological one, while alien at the time for Euro-Americans, is precisely how some Melanesians think about the person—as always an idea first before being a substantial being. Today, with Lanier's Siren Servers and "my" personal data, we are having a debate over payment and ownership. But what kind of labors generate that data? Ought we to think in terms of alliance and generation rather than wages and work?

If nothing else, doing so would provide more conceptual tools for understanding where we stand

with regard to the datas and the Googles and Facebooks. Instead of assuming we're in the middle of a kind of primitive accumulation based on big data, we might consider whether we are negotiating a new kind of marriage. To dignity, one could counterpose respect, or alternately rank. These would each have different implications for unpacking current systems, and imagining new ones. I do not mean to sound too Pollyannaish, but I also don't see how we can think about "our" data without acknowledging the fact that it doesn't exist outside "the relation."

My point is to see if the empirical reality of us and the datas and the Googles might demand some deeper thinking than dignity. Until that time, I would be pleased to accept a nanopayment.

# Making Big Data, In Theory

Tom Boellstorff

Data is too big to be left to the data analysts! Here, Prickly Paradigm brings together five researchers whose work is deeply informed by anthropology, understood as more than a basket of ethnographic methods like participant observation and interviewing. The value of anthropology lies also in its conceptual frameworks, frameworks that are comparative as well as field-based. Kinship! Gifts! Everything old is new when the anthropological archive washes over "big data." Bringing together anthropology's classic debates and contemporary interventions, this book counters the future-oriented hype and speculation so characteristic of discussions regarding big data. By drawing as well on long experience in industry contexts, the contributors provide analytical provocations that can help reframe what may prove to be some of the most important shifts in technology and society in the first half of the twenty-first century.

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