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Terms of Reference & Vectoralist Transgressions: Situating Certain Literary Transactions over Networked Services

These are my terms of reference. I will attempt to discuss the network in terms of certain contemporary practices of writing. Writing is here understood as what arises following upon the inscription of language such that—at an arbitrary subsequent moment of time—it may be read. Writing is language that has, as a minimum, been read by its writer, but further reading has ceased to be dependent on subsequent linguistic performance by the writer. The physical material and media associated with writing—typically perceptible to human readers in the form of graphic arrangements on a notionally two-dimensional surface—is not to be identified with any “materiality of writing” in the sense of an ontology of writing itself. Writing only exists as it is read; or as function of its virtual, potential, and intermittent readability; or as function of memory, which is simply a special type of transcription within human readers.

It is important for me to set out the terms of reference above because I will also discuss practices of writing over the network as we are coming to understand it. I will assume that I should not, prejudicially, define the network as one of my terms of reference because, precisely, the understanding of network is emergent in our present situation—historically and literally. I will nonetheless briefly develop network as a term of reference since it appears now to be the most widely used, and increasingly predominant surface for the inscription of writing. I refer to the network as a “surface” in relation to writing in order to reiterate the special requirement of human readability that writing retains in order to exist as writing. Writing is multiply embodied within the media systems associated with the network—

devices for encoding, computation, and display; protocols for storage and transmission—but this is simply an aspect of the processes of inscription. To be writing, it must be able to come to a surface, on a network terminal, as terms of reference for human readers.

I will pretend to be definite about the network. The network under discussion is the internet. This particular network has a remarkable history that is much studied. Within my terms of reference, I will highlight one or two properties of the internet. It was deliberately developed as a distributed system, having no need of a central mechanism for control, surveillance, or policing at either the point of access or to ensure network continuity and maintenance. Relatively straightforward protocols still allow arbitrary devices to join and leave the network at will. When a device joins the network, it may do so as a peer: it may have (or be associated with) an address on the network that is, in a number of significant senses, the equal of every other such address on the network. In the West at least, the human user or reader is not required to engage in explicit contractual or state-implicated administrative procedures in order to connect a device to the network. I am deliberately simplifying a complex situation, but here my point is to stress our sense of an underlying correspondence of relations. On the network, functioning like an open commons, the relationship between a terminal and the network has been constructed so as to correspond with the relationship between an individual human writer and reader, and a kind of pre-institutional, neo-Romantic world of reading and writing that we associate with Western liberalism.¹ I would argue, further, that this correspondence evokes the configurations of affect associated with the latter relation and reinforces a sensible belief that connections on the network are commensurable with a certain widely approved, predominant sociopolitical understanding of self and society.

Overall, as a function of massively popular consensus, the effect of this correspondence is that we feel good about the network, and perhaps—perhaps too often—we think good about it. We give in to it. We have certainly, on a massive scale, given into it. We have given into it to the extent that it now stores and gives access to what is rapidly becoming *the* world of reading and writing. We undertook this work of transcription ourselves because it seemed good to us. Now a collective commons of peer devices on the network appears to accept, to hold, and so stand ready and able to give back for us to read so much of all that we have written into it, especially since the mid-1990s. Indeed, so much has been inscribed into the network that new services have been developed, especially services of search, helping us to find our way through all this writing and get back to reading, of a kind. So far so good, in a sense. The story is familiar to almost all of us.

In recent years, network triumphalism has come to focus on the benefits and affordances of “big data.” The ability to store, digitally, and analyze, algorithmically, overwhelming quantities of data has rendered it “big” in

combination with the near-ubiquity of portable and mobile devices, fully networked and capable of collecting, transmitting, and aggregating both data and meta-data gathered from an ever-increasing proportion of human movements, actions, and transactional, communicative exchanges—from the highly significant and valuable (finance, trade, marketing, politics, etc.) to the everyday and commonplace (socializing, shopping, fooling around, etc.). Personal analysis of all but a minuscule part of this data would be humanly impossible and so, at the cost of commensurate, individual human attention, algorithmic agencies promise to predict trends and visualize patterns from what has been collected with unprecedented statistical accuracy and previously inconceivable power. The question of what this data represents—what exactly it gives us of the world—remains little-examined. The cost of collection is so low; the methods of collection are now incidental and habitual, while the tangentially related profits—derived chiefly from the reconfiguration of advertising—are massive, and far from exhausted.² If corporations remain somewhat uncertain as to what their data represents, they no longer have any doubt as to its value, to the extent that the more powerful corporate players are fixated by the production of enclosures for the data they collect, by software architectures that are closed in the sense that logged-in transactions take place “safely” and in a regulated manner within corporate domains. Human users move in and out of these domains and begin to perceive them as the global architecture and constructed geography of a (new) world where they also dwell. In the current historical moment, while data remains big as a function of its cultural and commercial promotion, I propose to characterize those corporations capable of building and enclosing domains or clouds of data as “Big Software.”³

In the political philosophy of McKenzie Wark, the enclosure of big data by Big Software produces the specter of a new and newly exploitative phase in social, economic, and political history. In *A Hacker Manifesto*, Wark proposes the existence of a new exploitative class: the owners and controllers of the vectors of cultural and commercial attention that proliferate in an age of digitally mediated information.⁴ This “vectoralist” class acquires and exploits the labor of a “hacker” class, which creates but does not necessarily commercially exploit those algorithms that collect and manage what we now think of as big data. Whatever one may think of Wark’s witty and provocative post-Marxian contextualization for his suggestive and important ideas, there is no doubt that they give us vital purchase on the analysis and understanding of momentous and transformational historical forces.

The emergence and development of internet services and the implicated vectoralist enclosure of the network by Big Software is crucial here, crucial for a critique of the network that has economic, political, and psychosocial ramifications. This critique is well under way, and its effective elaboration is, of course, far beyond my present scope.⁵ In conclusion, I will return to a more specialist discussion of language use, of writing and reading within

the network of Big Software's enclosing vectors. Before doing so we must remark the extraordinary fact, so I believe, that significant sociopolitical tendencies of the network can be detected and identified by reflecting on only three institutions, two of which are now also powerful and influential corporations: Google, Facebook, and Wikipedia.⁶

Google led the way among the pioneers of Big Software. Its ascension to vectoralist superpower may well have been unwitting but is nonetheless determinative. Only software that is sited on and definitive of the network will figure as what I am here calling "Big Software." After producing software for terminals or for off-network corporate computing, the software giants of a previous era acquired conventional intellectual property in order to diversify their investments. They acquired what was already considered investable property. By contrast, the pioneers of the new world, of the network, merely gathered and enclosed the data that we human writers offered up to them from the commons of language, as, fundamentally—at least for the time being—writing. Contemporary Big Software vectoralizes linguistic data, harvested from the commons of language, using proprietary indexes and other big data processing techniques. Google pioneered these processes with its infamous page-rank algorithm, once it became allied with the Google AdWords services.⁷

Wikipedia is the odd one out.⁸ Although the existence of Wikipedia is difficult to imagine without the synergies provided by other networked services and affordances such as those of Google, here we see that there has been no enclosure, no implicit non-mutual reconfiguration of terms. Rather, terms of reference are still negotiated by peer terminals or by newly created institutions of editorship. Any reconfiguration of terms is still a function of compositional strategies within the purview of readers, working, at least notionally, from the site of a terminal, as so-called "end users." Within Wikipedia the data that has been offered up from the commons is still in the commons and on the surface of inscription: readable. It is writing. Processing of terms within Wikipedia is a matter of more or less traditional editorial practices negotiated by peer terminals that configure themselves into contestable hierarchies of authority. Arguably, the attributed, time-stamped editorial event on a platform such as Wikipedia is the model for the future of scholarly knowledge building and dissemination, lacking only the active and sympathetic engagement of ultimately commensurate institutions such as universities and publishing houses.⁹

In the case of Facebook, we see that the process of enclosure becomes perceptible, established, normalized. What was freely offered up to the network by any peer terminal is now taken into Facebook. The simple homepage is no more. It is inside some other service, predominantly Facebook itself. At the point of being taken in, whenever a peer terminal uses Facebook, terms are agreed and the terminal ceases to be a peer, as it implicitly ratifies Facebook's terms of service. Indeed, this model vectoralist

corporation has actually chosen to recast its terms of use as a domain-defining "Statement of Rights and Responsibilities."¹⁰ For some time now, Google has been realigning its vectoral strategies in order, evermore, to bring the human terminal within itself, lest, instead, terminal readers use their services from within Facebook, or remain entirely without, as unregulated terminal peers. Google's provision of Gmail, requiring accounts and stable linked terminal identities, was a major turning point in a process that now drives Google+ and demonstrates that vectoralist predominance depends on bringing terms and terminals within an enclosure where as many as possible human readers and writers exchange their terms on terms that allow these once human terms to be harvested for the accumulation of big data.¹¹

It would require independent corporate-historical investigative scholarship to propose and document the historical moment when there was a fundamental change in Google's understanding of its business, its self-reflexive grasp of vectoralism. Nonetheless, the introduction of Gmail was remarkable and is datable. I would speculate that, shortly before the introduction of Gmail, Google realized that its famous search box was not a portal but a mouth. It understood that the collection and analysis of all the search terms continually being supplied to it by human writers was far more valuable than any indexes it had generated from what had already been inscribed on the surface of the network. By definition and protocol the surface of the network is open to and, in principle, independently indexable by any terminal peer. Thus, we still think of Google as a gift. We could have worked to build our own indexes and we may still do so, but, as it happens, a Good Search has been provided for us. The True Search has been Freely Given. Or so we say to ourselves. Any other terminal peer might have done the same; the trick was simply to have discovered the one true search at the historical moment just before Moore's law made it feasible for a terminal peer to do the same on any scale. The free service worked. It was and is used by all-but-every terminal on the network. Google as the zero-degree of the portal—transparent, self-effacing access to some other writing on the network that a human user wishes to read—was precisely that: nothing. For now we see that Google is entirely focused and founded on everything that we feed into its mouth, everything that is proper to us as desiring humans, or, more precisely, proper to the network-authorized agencies of human and posthuman desire.¹² Google must find a way to keep an overwhelming and representative majority of such entities feeding it with data or, better yet—learning from Facebook, its vectoralist peer—a way to take into itself, as Google+, every property and method of symbolic human self-representation on the network. As of the present day, a vast majority of human terminals on the network willingly and frequently write into one particular space, the maw of Google. At the very moment of doing so and by dint of this action we agree to terms of service, terms that establish a hierarchical, non-mutual, non-reciprocal relationship and we allow the abduction of our terms of reference.¹³

The act of making of the agreement by such means is likely to be asserted as an initial article of the terms themselves. Contracts are often agreed more or less implicitly—by the shaking of hands, after a loose verbal exchange, and so on—and, as such, they may nonetheless be recognized in custom and in law. In the case of Terms of Use or Terms of Service, the contract is most often explicit from the point of view of the provider, while the human terminal is likely to remain unaware of the agreed terms in any detail.

It is interesting to consider that the textual, documentary articulation of such agreements has really only come into its own as an aspect of day-to-day life since the advent of Big Software.¹⁴ Once software has been manufactured on such a scale as to provide a service to many human users, there may no longer be a person involved with the service who is available to articulate terms, nor any associated physical products or objects. Even today, when we buy a book, by contrast, we may do so from a person able to describe its facilities. In any case, we do not expect to be agreeing to terms of its use, set out in detail by a publisher or retailer, nor to think of the book as, itself, providing a service. A book's terms of use are adequately specified by the conditions of its production and distribution, and subsequently by its physical properties, which are immediately accessible to us.

However, when we read or write with a computer, we are often in the position of using the services of remote software applications that we do not own or license. Merely by doing so, we will have agreed to terms of use. This clearly implies some regulation of any medium of exchange that the service requires, most commonly, digitally encoded language itself. Our reading and writing comes to be, literally, mediated on terms.

Language is a commons, and yet by contrast
 With *first nature's* free resources, it is constitutive
 Of culture while all at once incorporate *within*
 Those cultures it enables. As language is a commons,
 To use it, we need not agree to terms.
 Now, counter to our expectations and our rights,
 Agreements as to terms of language use
 Are daily ratified by the vast majority
 Of so-called users—you-and-I—by all of us
 Who make and share our language on the Internet.

This situation had long been in place before the provision and effective promotion of network-based “cloud” computing. Now Big Software runs from the “cloud.” It invites us to the cloud, offering services associated with our provision of data. Terms of use regulate this mediation of our data and—often “by default”—the same terms may cause us to agree that our data will be mined and manipulated, albeit anonymously, as we move it into the “cloud.” Both the tools we use to read and write and the material traces

of our textual practice come to be stored on systems that are removed from us as readers and writers. We are increasingly dependent on self-regulating, proprietary services without which we cannot gain access to our reading or our writing, and whenever we do gain access, we do so on terms. These circumstances have momentous consequences for textual practice, and their careful consideration is crucial.

As a phrase of current English, “terms of use” associates, like “terms of reference,” with the “terms” of “search terms,” “key terms,” crowd-sourcing “terms” or “tags,” the “terms” of an argument or discourse, and with our “use” of these and all others terms as an aspect of “language use”—the “usages” of all linguistic interlocation. Language is a commons, and yet, in contrast to the commons of the world’s natural resources, it is a commons that is directly constitutive of culture while at the same time incorporated “within” any culture it enables. This is demonstrable in that there are only enculturated languages (plural), and thus, in each instance, a particular language is one of a plurality of commons that welcomes any user of its specific, located resources. As a commons—radically co-constitutive of the cultures within which we dwell—in order to use a language, we do not expect to agree to terms. Rather, languages set out the terms of reference for culture itself, the only articulable terms it knows. This makes it all the more important, in an era during which the “digital (mediation of) textuality” comes to predominate, that we take full account of any implicit agreements as to terms of language use where these are being reiteratively ratified by a vast and growing population of highly influential language users.

We cannot proceed without continuing to refer to the most obvious example of Big Software that is currently used by hundreds of millions of people, all of whom have thus agreed to terms. Google sets out terms of service that regulate the significant aspects of textual practice in which it specializes.¹⁵ This one company processes more text, more linguistic material, than any other computational service on the planet. The particular service—page-ranked indexed searching—that established Google as a commercial and culture powerhouse is founded on textual analysis of web pages and their tagged links.

Services, like those of Google and many others such
 Still expressly offer their results in swift symbolical
 Response to phrases of a language we call *natural*:
 Words composed by human *writers*, desirous
 To discover something that they wish to *read*,
 If only with the aim of transacting through commerce,
 And so satisfying a moiety of our more venal cravings.¹⁶

Google’s and most other related services are still explicitly designed to be responsive to phrases or clauses of natural language composed by human

writers who wish to find something to read, even if only with the goal of undertaking a commercial transaction or satisfying a desire. Intimately linked to this service provision is the question of how these and now many other interconnected services relate to the vital institutions of literary culture, in at least two ways: at a collective level through their effects on (not an exhaustive list) publishers, libraries, and universities; and at an individual or collaborative level through their effects on literary aesthetic practice.

Although the objects of our culture have each
 Their specific materials, now these may be mediated
 By the insubstantial substance of machines
 That symbolize—or seem to, in potential—
Every thing. The *digital* appears
 To us historically unprecedented, thus:
 It presents itself as servant and as Golem,
 Non-vital but commensurate, un-alive
 And yet all-capable: of service, of facility:
 A limitless archive of affordances,
 And so it ceases to be some *thing* or *substance*
 Amongst others; it becomes the currency
 Of all we are: essential infrastructure,
 Determinative of practice and of thought.
 Despite this, it still seems made by us, and lesser,
 A servant still, and so we treat the digital
 As if it remained *in service*, though it sustains—
 Or seems to—all that we desire to be.
 We will not live without it, yet we believe
 That we still choose to purchase and to *use*
 A relation that is optional, elective, and we
 Manage it as such.

One of the ways in which digital mediation appears to be historically unprecedented is that it offers itself as a service or facility or catalog of affordances (such as word processing for writing), but it quickly goes on to establish itself as essential infrastructure. Thus, it becomes remarkably determinative of practice and ideological framework while nonetheless continuing to be managed and developed as if it remained a service. It also presents itself as a low- or no-cost commercially viable service, and therefore, in a number of senses, it seems to be optional or elective. This same syndrome plays out in the relationship between, for example, a university's management of its "computing services" on the one hand and its intellectual mission on the other. Before an institution like a university fully realizes and internalizes (administratively) the fact that practices

demanding digital infrastructure will be constitutive of its academic mission, its computing services are willingly swallowed up by more “cost-effective” and more innovative services provided from outside the institution. These, as infrastructure, may then go on (in a more or less subtle manner) to reconstitute and reform the institution.¹⁷

“Electronic” and/or “digital” literature, along with “digital,” “new media” and “net” or “network” art, pioneered new practices outside those paradigms of cultural production that are challenged by such infrastructural developments, but digital cultural practice is not, by that token, necessarily in harmony with the interests of new, as-yet-unconstituted cultural services. It seems to be only recently—since the middle of the first decade of the twenty-first century—that sharp contradictions have become clear: between a putative new media as service provision and the Big Software realpolitik of new media as fundamentally constitutive of cultural and critical practice: determinative not only of potential but of possibility.

On the one hand, Big Software has begun to shape a world that has its own architecture and momentum, on a scale that ceases to be perturbable by individual or independent collective action. Big Software carves out real estate in the world of the network in the same way that fences established the earlier enclosures of other commons.¹⁸ The “land” being enclosed is human attention, and the chief symbolic vector of this attention is language use. On the other hand, this same Big Software is dedicated to channeling and storing the chiefly linguistic flows of potentially transactive data through its new architecture. At the initial and any subsequent moment of use, the tacit performative language set out in terms of service transforms what the user offers as data into capta—captured and abducted data—that may, as granted in the terms, be used by the service for entirely other purposes than those for which it was supplied.¹⁹ For example, a user may search for words with which to read and write, but the words of the search will be taken and correlated with other searches and language data in order to reduce the friction of future searches, and more specifically to reduce the friction of searches that will bring the most revenue to what is, after all, a commercial service. Any reader and writer’s cultural—Arts and Humanities—use of networked services will be, at best, misaligned with these services’ use of a reader and writer’s data, but then, the reader and writer do not, typically, set out terms of use for that portion of their data that they offer up to capta.

We see that the question of how, that is, on what terms, such services relate to literary culture very much applies to the individual practitioner, to collaborative project-based groups, to any writer writing to be read.

Even for those writers
Who may be in denial of any digital mediation
Of their practice, networked services are likely
To provide for them: crucial points of reference,

Essential to the composition of their texts,
 And intimate with whatever artistry they own.
 If this is the case, then, given how the structures
 Of the network and its services are deployed:
Terms of use have, literally, been agreed.
 The commons of language is, in part, enclosed
 by its very makers. The writer has conceded
 That he or she is happy to supply a phrase—
 How many? And to whom? And on what terms?—
 And then to receive, to read, and to transact
 With *results* that have been fashioned from the store
 Of every other *user's* phrases, and from the indexed
 Language of all that you-and-I have published
 On the *Internet* since it began.

The published internet and associated textual intercommunication amounts to one source for the corpora of Big Software services. If we consider the freely searchable Google Books corpus, we discover an equally extraordinary situation relating to a traditionally privileged cultural domain: the world of letters, the world of print culture. Google acquired access to as many books and journals as possible and digitized them without secure knowledge concerning what they could or could not do with the scanned texts. Apart from any directly profitable use Google may or may not have projected for the digitized books—by way, for example, of the publication or sale of copyright-orphaned and out-of-copyright material—there is the simple fact that one company has now, in a sense, taken into itself some major part of everything that has so far been written. A single network service now holds this material, although, because of existing copyright law and other agreements, it may be prohibited from representing this information in the original form that it was given—as complete books, or articles, and so on. Authors, publishers, and libraries have, for the moment, successfully resisted the handing-over of certain rights relating to the distribution or sale of integral works within this vast database,²⁰ but this overlooks the fact that Google nonetheless possesses the data, makes it accessible to its own internal processes, and, when users search this corpus, serves results back to contemporary readers and writers, in new forms of processed capita, and under explicit terms of service. Although we may be amazed, if not dazzled, by the analytic power that these results can provide in some contexts—integrated with or in parallel to those of the now-familiar internet search—as users of these services we might ask, on what terms was this data supplied, and whose data was it in the first place? Does any such service have an innate right to use this data in the way that it is manifestly being used? How is it being used? How can we find out?

“Results that have been *fashioned*,” which is to say
 That they, words orthothetically abject
 To those within our selves, have been shaped
 By *algorithm*: and to this circumstance the writer
 Has agreed.²¹ Perhaps we may, you or I, pretend
 To have some general understanding of these algorithms’
 Behaviors, yet the detailed workings of such processes
 Are jealously protected. Indeed, they are proprietary,
 Closely guarded and esteemed as highly valuable
 For reasons that may be entirely divorced from
 Or at odds with the tenor of our queries.
 The underlying transactions and the relationships
 Devolved are very different from any that arise
 When you or I take down our dictionary to look up
 A word.

As writers and readers, we are forced to consider that our relationship with language and literature will never be the same. If the medium of literary art has significantly migrated to the network, where it is gathered, channeled, and filtered by Big Software on a massive scale, daily touching the linguistic lives of huge populations, then new practices for reading and writing with and against such services must surely arise and go beyond any uses that are constrained by the terms of service or use now made unilaterally explicit by contemporary service providers.

However the *power* of the cultural *vector*
 Represented by the mouth or maw of Google’s
 Search box and its ilk is all unprecedented.
 For any artist-scientist of language, it is like
 The revolutionary and revelatory power
 Of a newly discovered optic, allowing you-and-I
 To see, suddenly and spectacularly, farther
 Into the universe of language by several
 Orders of magnitude. The writer may observe
 And get some sense of the frequency or range
 Of usages for words and phrases in our living,
 Contemporary tongues, up to the millisecond—
 All in a few keystrokes and clicks. This extraordinary
 Facility—inconceivable until just now—is presented
 As a freely open service, in the guise of what
 Has already been cited as “cultural vector.”

Oriented

Where? And how? By whom? For whom? To what
 End?

It is only necessary to cite this one apparent by-product of search—one of many—to get some sense of the awesome cultural and, here, linguistic power that appears to be offered to us users by key service providers. In the domain of the literary, working writers now habitually make reference to search engine indexes, and discover contexts for the language they compose in a manner and to an extent that they could never previously have imagined. It is, I would venture, a facility that gives us habitual access to no less than an instance of the literary sublime: an encounter with overwhelming quantities of language, arguably beautiful, that is, through the search terms we type, manifestly and directly linked with words of our own: a literary sublime, touching what we write as we write it.²² Nonetheless, we must recall that this kind of cultural power is founded on the algorithmic processing, analysis, and indexing of what was and is published on the network as data by human writers. It may have been given as true data but it is then processed and analyzed as *capta*.²³ In the case of the language that was posted to web pages and then indexed as such, at the time of the event of inscription or publication, onto the surface of the network, those human writers involved were not necessarily or in principle using the services of contemporary Big Software.²⁴ Natural language data was and is given over to the network and then it was and is harvested by increasingly powerful and sophisticated algorithmic processes, and these processes themselves were not and are not, generally speaking, subjected to “terms of use” in relation to the specific substance of what they harvest, predominantly still, to date, language. Most human writers, posting to the web, do not specify terms of use for search engine robots or their corporate instigators. Thus, when these writers come to interrogate the processed and indexed *capta* that has been culled and sorted from their linguistic commons, human writers’ acquiescence to network providers’ terms of service constitutes a non-mutual non-reciprocal relation or, at the very least, a relation that forecloses the possibility of productive mutuality with fairly regulated, well-understood institutional commitments.

And yet surely, given the previously all-but-inconceivable, if obvious, benefits that services like search provide, surely, in the circumstances, it must be worth it for human writers and readers to continue to agree to terms. I do not think that it is.

Even were we to concede that the circumstances of Big Software, big data, and the cloud demand important, irreversible changes in the relationships between individuals and their institutions, and that certain of these changes were clearly of significant value for all stakeholders, there remains the simple fact that we have not sufficiently examined and drawn out the implications—for ourselves as individuals but also and perhaps even more importantly for the institutions that constitute our socioeconomic and political relations—of the specific terms to which we agree when we offer up our self- and institutional-representations-as-“data” (that is, *capta*) within the vectoralist enclosures of Big Software.

That this momentous shift in no less
 Than the *spacetime* of linguistic culture
 Should be radically skewed by *terms of use*
 Should remind us that it is, fundamentally,
 Motivated and driven by quite distinct concerns
 To those of art. Here are *vectors* of utility and greed.

The reconfiguration and reform of institutional relations with Big Software's network services, with vectoralist interests, those founded on the aggregation of so-called "big data"—this is one of the most important socioeconomic and political tasks facing all of us now. I make this statement as a practitioner and theorist of writing, and this chapter is a specific call for writers to take a self-consciously expert, forward-looking, and responsible role in what will be a necessary struggle, since, for the immediate time-being, the formations that I am critiquing as non-mutual and non-reciprocal are manufactured from language, the very medium of the writer.²⁵

I have just stated the tenor of my chapter. In lieu of a conclusion, I set out a number of instances that I characterize in terms of vectoralist transgressions, thresholds we have already crossed but that might well still give us pause, and cause us to consider ways in which we should undertake a profound renegotiation of terms with vectoralist agencies.

Whenever we transact with networked services a significant number of events occur for which the question of transgression is crucially at issue. A transgression is a crossing over and beyond; more specifically, over and beyond the thresholds of social conventions, the conventions of institutionally sited practices. As we transact with language using networked services, our words move across many thresholds and in so far as our words represent and embody our identities, our subjectivities, our subject positions, they move us back and forth over these thresholds. We may bracket or suspend the negative connotation of transgression or may even, in a spirit of subversive reform, affirm transgression as value per se. Judgments of cultural value and positive or negative effects on ourselves and our institutions are suspended in the following anecdotal narration. The remarkable thing to me, as I set them out, is the extent to which so many of these transgressions are ill- or unconsidered by human agencies. They seem to be "merely" the "inevitable" consequence of manifold technological processes, network enabled.²⁶

The first transgression is the transcription of language into the digital as such. We send language over a threshold into the digital by typing into a computer via, typically now, a word processor. The structure of linguistic representation or transcription is, if not identical with, then absolutely amenable to digital forms of representation as fundamental abstractions of the symbolic. This fact of linguistic abstraction is an essential part of how language is, although it does not follow that human language is reducible to any of its essential (and necessarily multilingual) forms of representation.

Through print and typewriting, peoples of alphabetic systems of inscription have long been used to representing language in terms of the discrete symbolic abstractions that we know as letters.²⁷ The difference of word processing is that, as we type, the letters and words and larger units of language cross over and become immediately accessible to the realm of data, or more properly of capta, of whatever is considered linguistic data by the predominant technological regime. Our words transgress into capta, and they persuade us to transgress there also. We do this without thinking of it, and all the while it changes our relationship with language fundamentally, as we have seen.

The word processor is running on a computer, and our letters and words have now transgressed, crossed over, and gone beyond previous conventions of writing, to be “within” the computer and its associated systems of storage. Meanwhile the Google Books project has been word processing for us by scanning every book possible and so bringing all of what was previously in a largely unindexed realm of reading and writing “within” the same regime of capta where anything we have word processed already dwells. This is another transgression, bringing all that has been written over a conventional threshold into the world of “big data.” Again, we consider this unthinkingly as good, as an aspect of corporations such as Google “not being evil,” of their mission to “make [the world’s information] universally accessible and useful.”²⁸ In terms of the conventions of copyright (based on eighteenth-century conceptions of intellectual property, modeled on real estate as much as anything), we are sensitive to transgressions that might be consequent on Google’s acquisition-by-scanning of all the writing that has been published, but we have not worried over the transgression of digitization itself. We have not considered the consequences of having all that was not indexed, suddenly subject not only to index but to many other analytical algorithms. If, for reasons to do with copyright and the interests of copyright holders, Google is not able to make all of what it has scanned universally available to us human readers (either freely or for a fee), we do not question Google’s right to have scanned this cultural material and to make whatever use of it it wishes “privately,” “within” the corporation²⁹ (see note 20). Surely, there is a vast amount of culturally and commercially valuable information that could be mined from all that capta, and this is something Google is apparently free to do for itself, while we, meanwhile, may only get access to some small part of this material on terms, terms likely to be determined by the capta holder. Suddenly, I feel transgressed against, as well as taken beyond a threshold. I was once a reader who visited libraries. Now I become aware that every book and all that has been written are both closer to me than they have ever been before but also differently, if no less accessible. I know it is there on the network, at my fingertips, but I can’t be sure of getting to it without agreeing to terms and establishing my (network) credentials. On the other hand, across some, to me, impassable threshold, I know that Google has it all.

As I am word processing—always already transgressing many former conventions of reading and writing—I cut and paste some of the words proper to my writing back and forth from word processor to browser. Initially, perhaps, I am pasting them into the mouth of a search box, using these words from my writing to find something with which they are associated in the indexes beyond the threshold of the all-consuming, consumer-driven maw. Or I may want to acquire some sense of how other writers have used these same words of mine, of yours and mine, in other contexts. So many transgressions in a single simple action! I have carried my words to a threshold and launched them over it into a far-distant database where they will be collected and time-stamped and geolocalized and associated with whatever other “anonymized” traces of human interaction that my computer has encoded and made accessible to the processes and algorithms of the search provider. The search box and its “page” are in no way passive. As soon as they detect the “presence” of my language, they react and send me back words and images that are intimately, orthothetically associated with mine. These words and images of words occupy and then transgress my attention with the explicit intention of influencing my future action. I seem to accept all this unthinkingly and it is proposed to me as either “useful” or neutral. I am not in a position to set out human-interpretable terms for my subsequent interaction with the processes of the page but merely by having pasted letters and words into the search box maw, I have explicitly agreed to terms and from this point on any action I take that ventures beyond certain thresholds set out in those terms will be explicitly deemed a transgression by whoever inscribed these terms of use. Even if I remain unsure of what is and is not a transgression, the network service provider and its algorithmic agents will be quite clear, and they will act on their judgments immediately and automatically.

One of the most interesting and profoundly contradictory thresholds for transgression, established by terms of use, is that between robotic or algorithmic processes and those initiated and carried out by humans. The feeding mouths of networked service providers desire human capta and logged-in, signed-up “captive” human participants. They want to know what humans want for the simple reason that they want to please humans. Humans still, currently, control the processes of commercial exchange. It is, ultimately, humans who are to be persuaded to buy things in response to appropriate advertisement. Networked providers are currently repaid for their services in a proportion correlative with human readers’ responses to advertising.

If language is a commons then what appears
To be a gateway or a portal to our language
Is, in truth, an enclosure, the outward sign
Of a non-reciprocal, hierarchical relation.

The *vectoralist* providers of what we call *services*
 Harvest freely from our searches in themselves,
 And from whatever language we have published,
 Using fantastically powerful and sophisticated
 Algorithmic process, lately known by many names,
 As *bots*, *robots*, *spiders* and the like, but we *users*—
 You-and-I, who make and publish all we write—
 Are explicitly denied, according to their *terms of use*,
 Any such reciprocal opportunity. We may not freely
 Use our own algorithmic processes to probe
 The universe of *capta*—our captured and abducted data—
 Even though our aim may be to imitate,
 Assist or to prosthetically—aesthetically—enhance:
 To beautify the human *user*.

Thus, ideally, no robots should access these networked services. Many problematic contradictions arise here. What the terms of service mean is that no bad robots need access these services. But who decides what is or is not a robot and whether it is bad? Every computer linked to the net is, as it links, a robot. It is a robot made for linking to the net. This is manifestly good. Our computers are good robots or at least they are neutral, transparent representatives of their humans to the network. The browser is a robot that is run by the same computer that is running the robot connected to the net. The browser is clearly a good robot that understands a number of good protocols that build good channels for human desire. But a browser could easily be turned bad, with a little malevolent programming, for example, to do random, non-human searches by itself.³⁰ The browser might become a bad robot, a transgressor, disregarding terms of use or even, indeed, the law. Say all the robots I'm running are good: good network connection, good browser. What if I, a human, type too many mad, bad, or aesthetic searches into my browser's search box a little bit too fast and a little bit too regularly. Google's (good) robots will ask me if I'm human simply because I'm behaving like a "robot." I may have to solve a captcha to prove to a good robot that I am human, albeit a slightly bad human who has been, clearly, acting like a bad robot. What if I, a good human, write (that is create or compose) a program that acts like a bad robot for good reasons, for aesthetic, culturally critical reasons, or simply to recapture and reclaim some of that superb big data that lies on the other side of the mouth-threshold where the powerful indexes dwell? Well, if I do that, it's pretty bad, and it's against most terms of use. Big Software can, it seems—via innovation, hyperhistorical momentum, and force majeure—deploy whatever robots it wishes—to index the web pages that humans have written or to police human access to its services—and Big Software will deem these robots "good" without need of justification or regulation. But any robot that you or

I build and that interacts with these services is “bad” by default, guilty until proven innocent, normally without any reasonable opportunity to prove itself one way or the other. In these extraordinary circumstances, there are undoubtedly multiple transgressions of processes and actions in relation to whatever threshold we maintain between the human and the algorithmic, the non- or post-human. Our institutional management and understanding of this threshold is undertaken by forces that are neither mutual nor reciprocal. The de facto control exercised over these relations by corporations such as Google and Facebook is very much under-examined. However, one thing is made clear to us: we should not behave like non-humans, and perhaps not even like unusual humans with unusual interests.

And so, why not?

The foremost reason is: the harvested *capta*
 Might be muddled and so rendered less effectively
 Correlate with its primary purpose: to represent
 In a *normalized* form, the most frequently expressed
 And potentially most profitable human desires,
 Such that advertisement may be intimately associated
 With our harvested phrases, ideally, all at the moment
 Of harvesting itself, with human eyes to read
 Not only a desired *result* but an intimately associated
 And immediately *transactable* new desire. Moreover,
 the *vectoralist* ads are made with sign chains that are
 Orthothetically disposed towards the language
 We have written. This also is previously unknown:
 That advertisement intended to induce a profitable
 And non-reciprocal exchange be made from some thing
 That is *proper* to its addressee. This is material
 Appropriation of cultural interiority to venal desire,
 Wrongly subjecting and reforming you-and-I
 Within a false enclosure of precisely that which
 Should never be enclosed: the openness of all
 That we inscribe. As yet, the so-called *interaction*
 of so-called *users* is falsely founded on unwitting, habitual,
 And ignorant *terms of abuse*.

In these late days, we have become involved, as humans, with a highly complex and sophisticated system of chiefly robotic, Big Software-driven processes, while, at the same time, being expressly constrained in the interactive use of our own robotic or algorithmic processes. Interestingly, certain unusual and even aesthetic processes may be substituted for those we might describe as robotic or algorithmic, but they may nonetheless be automatically—immediately and materially—disallowed by the undoubtedly robotic agents

of our providers' terms of service. This highlights the fact that, despite a rhetoric of universal access and maximized usefulness across any domain of information, we are being coerced into using processes that are, minimally, mimetic of normal human users, normally equipped. We are coerced into using normalized "human" processes that will engage with those of our network service providers in such a way as to perform transactions leading to huge marginal profit for these providers.

Currently, this marginal profit is derived from the management of human attention so as to direct it to advertising. This may be all very well when the media of interaction are, substantively, contiguous with and devoted to commercial transaction and exchange. However, network services will enclose, monitor, and process any and all linguistic practice by their users, everything from everyday, habitual intercommunication to "high-literary," "high-theoretical," "high-critical" correspondence and production. These services exist to process (albeit, typically, with anonymization) and vectoralize the commons of language, the commons of symbolic interlocution. This co-option of a vast domain of linguistic events and transactions in the service of vectoralist redirection of cultural attention requires stronger critique than it has so far encountered, allied with general and thorough resistance and regulation by existing social institutions of all kinds, including those of literary aesthetic practice.

Perhaps the most intimate, linguistically implicated transgression enacted as a result of human interaction with network services is the capture of words that are proper to the human writer and the manufacture of advertisements from these very words. The words in question may have been enveloped by a login, by their enclosure within an email message, by their insertion into a search field.³¹ However, terms of service—enclosing the "enveloping" frameworks themselves—ensure that these thresholds are transgressible by algorithms that will extract words and phrases, associate them with putatively desirable commodities and services and then, incorporate them, across other framing thresholds, within the bodies of advertising copy. This copy may then be instantly re-presented back to the human reader who wrote the words for entirely other purposes and in entirely other contexts.³² The abstraction of linguistic elements guarantees, to an extent, our inability to own or hoard them as such; however our reading and writing of sequences of words, linguistic elements, does cause them to exist as proper to ourselves, authored. I consider this the operation of linguistic ontology, bringing written words into being within and belonging to the human subject (who may then, of course, abject them for other human subjects).³³ Even the catastrophically flawed legal conventions of copyright establish strings of words as licensable "things," belonging to an author. So, then, taking words of mine to make advertisements is, I argue, even more of a corporally invasive appropriation than would obtain if an advertising algorithm captured the image of its addressee and then

cast him or her in a desirable and commercially transactable circumstance. It is a remarkable trick of symbolic practice that this visceral, if linguistic, appropriation—reaching into our private interiorities—goes all but unremarked while the analogous appropriation of personal audiovisual imagery will cause sensation and controversy as it begins to occur—when the live-captured image of my face appears seamlessly composited into a billboard’s advertising photography as I pass it, showing me modeling designer clothes, sailing on holiday in the Mediterranean, or experiencing the beneficial effects of a new palliative drug.³⁴

But then, we have agreed to this use of our words. Would we have done so if we had any idea of what we were and are agreeing to?