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Becoming NULL: Queer relations in the excluded middle

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This article investigates how computational media have come to shape the form and function of identity in contemporary society, suggesting that these technologies have conscripted users into systems of compulsory identification with or as a set of discrete categories for the purpose of value extraction largely divorced from or in direct contradiction with a radical politics of difference. The author suggests we must begin to imagine how queer theory and queer life might rearticulate themselves in ways that engage with and within technical systems, that is, to imagine a queer technics that is explicitly situated within the logic of information. Taking up this task, the essay proposes a queer politics of subtraction through an investigation of the now ubiquitous relational database management system known as SQL, suggesting its use of the NULL marker opens space for a queer indeterminacy.

Keywords: relational database management; SQL; queer failure; Facebook; queer theory; identification; darkness; opacity; whatever; thirdness; digital humanities

"Relations never contain nulls."

— C. J. Date and Hugh Darwen, *Databases, Types, and the Relational Model: The Third Manifesto* (2006)

In February 2014, the popular social media platform Facebook added the ability to select a "custom" gender for user profiles in the United States. Users were prompted to choose the pronoun they preferred the service to use in its friendly greetings and reminders to them, and could choose from a list of 56 newly available gender identities including Genderqueer, Intersex, Cisgender, and Two Spirit, among others (Goldman 2014). Some hailed the move as a progressive step forward, as it appeared for the first time that Facebook was allowing for a true range of gender expression to be made visible through its services and that users would no longer be limited to socially constructed gender binaries when using the platform (Associated Press 2014). And yet, despite this shift from 2 to 58, and despite this apparent explosion of the gender binary into a kind of gender multiplicity, the impetus behind Facebook's move remained deeply tied to a kind of binary logic, or at the very least a digital one. Put simply, while Facebook gave users more gender options with

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which to *identify*, they were still engaging in an act of *identification*.² They had simply broken up the ways in which they sought to enact that identification in order to make more users legible to targeted advertising based on a set of metrics that include gender and sexuality. As media theorist Lisa Nakamura (2002) suggests: "These sites want to know what you are so they can best figure out what they can sell you" (116). Here the user has simply been conscripted into enacting the labor of identification once reserved for sophisticated algorithms.³

This relationship between identity and identification is made all the more clear if we contrast this gesture of apparent inclusion with the controversy surrounding Facebook's so-called "real names" policy later that same year (Facebook 2017). In September 2014, Facebook began to shut down the personal profiles of a large number of trans* users, along with the accounts of pseudonymous performers such as drag queens and musicians. The company claimed that these profiles were using aliases that were in violation of Facebook's real names policy, and users were asked to produce documentation of the validity of their names in order to have their accounts reinstated. The resulting uproar reached across the LGBTQ community, and activists and community leaders met with Facebook representatives at their headquarters in Menlo Park, California, in an effort to resolve the block (Levy 2014a). Facebook claimed the move was part of its policy for policing false profiles intended to bully, harass, or hack other accounts. Drag queens and other performers who use Facebook as a means of advertising appearances and promoting shows saw this as an attack on their livelihoods, while trans* people saw it as an affront to their very existence, and an attempt to erase them from the network. After a month-long impasse, Facebook issued a public apology with promises to fix the issue and allow users to use whatever name they use in their daily lives, legal or not (Levy 2014b). Still, the question remains as to the stark discrepancy between what would appear on the one hand to be a gesture of LGBTQ inclusivity, and on the other, a gesture of exclusion and refusal.

To be sure, we might dismiss these anecdotes as a simple public-relations mishap, or as an unfortunate but understandable marketing decision given Facebook's ad-supported business model, but I would suggest that this case is exemplary of an entire structuring paradigm for the way computational media have come to shape the form and function of identity in our contemporary digital society. While identity may have once served as the basis for a progressive politics of visibility, it has been redeployed in the service of new regimes of identification for the purpose of value extraction largely divorced from or in direct contradiction with a radical politics of difference. This shift maps onto a much broader transformation away from disciplinary models of power in which individual behavior is regulated through the enforcement of norms, such that the construction of non-normative identities might embody a politics of transgressive refusal.⁴ In its place we find what Gilles Deleuze (1992) has termed societies of control, in which "the numerical language of control is made of codes that mark access to information, or reject it" (5). In such a society the individual is not regulated through the enforcement of norms, but through the soft power of access and legibility to technical systems, where "what counts is not the barrier but the computer that tracks each person's position – licit or illicit – and effects a universal modulation" (7). Put simply: Facebook doesn't care who you are or how you identify; it only cares that you have an identity that is addressable by Facebook. It is more than willing to accommodate the particularity of your unique user profile, but in

order for that profile to be useful it must be legible and, ideally, an accurate representation of your behavior and preferences.

We may think of this state as emblematic of a process of *compulsory identification*, that is, the mandate that one is identifiable but a generalized indifference to the particularity of any single identity. This is, in effect, a transformation from identity as an embodied practice to identification as or with a set of parameters, categories, and metadata, what digital media scholar John Cheney-Lippold has called measurable types. As Cheney-Lippold (2017) makes clear: "Google's gender is a gender of profitable convenience. It's a category for marketing that cares little whether you really are a certain gender, so long as you surf/ purchase/act like that gender" (7). Here the conception of identity or gender performativity is taken to its logical end, such that performance is no longer enacted by a subject that negotiates a socially constructed binary, but is instead captured and extracted as information to produce a data set indifferent to the goals and interests of that subject. Gender, race, sexuality, and other forms of difference are instrumentalized, flattened, and reified as a good enough approximation of a consumer subject. "It's a reconfiguration, a freshly minted algorithmic truth that cares little about being authentic but cares a lot about being an effective metric for classification. In this world, there is no fidelity to notions of our individual history and self-assessment" (9-10).

Of course, this transformation should come as no surprise – as it is effectively a reflection of the model for all information systems. As Tiziana Terranova (2004) has argued, within an information culture all communication is primarily concerned with the problem of signal and noise, and information flow comes to displace the question of linguistic representation and cultural identity from the center of cultural struggle (10). In other words, those sites that have most concerned queer theory and queer politics for the past 30 years – identity, performance, representation – are at best vacated by new media technologies, and at worst appropriated in the implementation of new forms of soft control. Given this transformation, it seems crucial that those disciplines which have, for decades, worked and struggled both with and against identity as the basis for a radical politics find new ways to address and critique this re-articulation of identity in the service of new forms of power through technology. Indeed, queer theory is uniquely positioned to take on this challenge, given its highly ambivalent relationship to identity as both a structuring form to be refused or resisted and a cultural logic that informs the objects, bodies, and practices that are made legible to it. Doing so would require queer theory to make good on its anti-identitarian critique, asking us to attend to queerness when it is not attached to queer bodies or queer subjects, and to imagine how queer theory and queer life might begin to rearticulate itself in ways that engage with and within technical systems.

This essay begins to take up this task. Rather than simply critique the pervasive use of identification technologies and their effect on how we understand our sense of identity and self, this essay looks to engage with the historical and technical specificity of these captive apparatuses in order to identify explicitly queer modes of being within computational systems. To this end I begin by asking: what would a queer technics look like – one that is explicitly situated within the logic of information systems but refuses this gesture of capture and extraction? In answering this question, I will look to what I see as a growing interest among artists and theorists of technology in the negotiation of identity through a politics of refusal, one that explicitly connects contemporary information systems with

an expansive literature in queer and critical race theory reaching back over three decades. From this frame I will turn to engage directly with those computational technologies that structure contemporary systems of classification, namely the database management system (DBMS) and its now ubiquitous Structured Query Language (SQL), fixating at last on the NULL marker within SQL and its system of three-valued logic. In reading the functional illegibility of this aberrant yet ubiquitous form I suggest that it might offer us a mode of becoming that enacts a queer logic sitting at the very heart of our contemporary technologies.

Whatever

If identity has been refigured as a system of capture, transmission, and extraction, within this very logic we might implicitly identify an alternative to this compulsion in its negation through failure, opacity, and illegibility. In this sense, any politics that hopes to resist the identificatory impulse of our contemporary digital culture might look to strategies of refusal, an opting out of visibility through the negation of the self, a becoming absent. Many scholars have taken up this task in recent years, seeking what Antonio Negri and Michael Hardt (2004, 342) have called "new weapons" in an age of digital media, a new tactics of disappearance for a society of pervasive visibility. This subtractive gesture goes by many names. In the tradition of critical theory it is the *whatever*, articulated in various forms by a range of thinkers including Pierce, Levinas, Lyotard, and Deleuze, though perhaps most clearly by Giorgio Agamben (1993), who suggests in *The Coming Community* that

Whatever is the figure of pure singularity. Whatever singularity has no identity, it is not determinate with respect to a concept, but neither is it simply indeterminate; rather it is determined only through its relation to an *idea*, that is, to the totality of its possibilities. (67)

The whatever is an expansive framework, additive rather than predicative such that all subjects may be understood as an excess of totalities rather than their restriction into any single identity. And yet, as media theorist Alexander Galloway (2012a, 123-124) notes, the whatever is not the neutral liberal political subject that believes itself to be beyond race, class, sexuality, and other forms of expressive difference, nor is it the Post-Fordist economic subject whose subjectivity fully embodies the unique, customizable, qualitatively special consumer of late capitalism under neoliberalism. Its mode is not indifference to the difference of others, nor is it the consumptive aggregation of difference as and for the self. Over the past decade, Galloway has repeatedly returned to the whatever as a model for what he considers the only tenable ethos in a society in which identity is no longer simply expressed but rather compelled from its subjects, extracted involuntarily such that they may be dragged into legibility to technology, to capital, and to power.⁶ Yet these calls often cannot account for how it is to be done without sacrificing difference on the altar of some whatever singularity. Rarely do such theories account for the reality that any ability to make oneself invisible is an unequally distributed privilege accessible principally to those normative bodies who are already least visible to power, and not by those who, in Frantz Fanon's (1986) formulation, have been "overdetermined from without" (116).

While this negative impulse is compelling, how can we enact disappearance in such a way that does not erase difference?

Here we must begin to look to those discourses and traditions that have, for decades, engaged in the complex articulation of identity as a structuring form, principal among them critical race studies and queer theory. For queer theory this retreat from representation sits at the heart of queerness as a non- or even anti-identity, though more specifically we might look to queer theory's use of failure as a mode of being with deep ties to queer forms of life. This connection between queerness and failure may be found in a range of theoretical practices and intellectual histories that reach back to the start of the twentieth century. As Heather Love (2007) notes in her work on the politics of queer history, "same-sex desire is marked by a long history of association with failure, impossibility and loss," such that "homosexuality and homosexuals serve as scapegoats for the failures and impossibilities of desire itself" (21). Queerness here is marked by failure not only because it exists outside of a given norm, but because it cannot be made useful to a given society. For early queer theorist Guy Hocquenghem (1972/1993, 93–112), it is capitalism that marks the homosexual as failed, where failure is understood as an incapacity for proper reproductive love. Without a clear connection between family, sex, desire, and consumption as afforded to heterosexual reproduction, homosexuality cannot be made productive to capital and is re-territorialized as a failed state of being. For literary scholar Lee Edelman (2004), the queer subject has always been epistemologically bound to negativity, occupying the space of the social order's death drive, an irrecuperable excess whose ethical value lies in "accepting its figural status as resistance to the viability of the social while insisting on the inextricability of such resistance from every social structure" (3). Queerness here is marked by its illegibility to the social order; indeed this is its very value. For Edelman, we must resist the legibility of a secure political identity lest we lose the radical difference that queerness offers. Refusing this move away from the political, Jack Halberstam (2011) suggests that living within failure and refusing the terms of success pushed onto us by capitalism, patriarchy, heteronormativity, neoliberalism, and other compulsory norms might allow for new ways of being in the world that need not disavow the possibility of a political imaginary, that may indeed form the basis for a politics of refusal. Failure here becomes a radical practice, one that is not without a future but instead reimagines how that future might come into being. In this, Halberstam echoes José Esteban Muñoz (2009) and his suggestion that queer failure might itself articulate a utopian imaginary, in that it often appears as failure from a dominant perspective. For Muñoz, "queerness's failure is temporal and ... potentially utopian, and inasmuch as it does not adhere to straight time, interrupting its protocols, it can be an avant-garde practice that interrupts the here and now" (155). For Muñoz failure and utopia need not be understood as oppositional modes, as failure can, for some, constitute a utopian imaginary.

This connection between queer forms of life and the refusal of futurity, productivity, and success is important not simply because it offers a radical theoretical frame, but because this compulsory logic of productivity in a capitalist society – and its connection to reproduction under compulsory heterosexuality – is also reflected in the future-driven teleology of technological development, and the insistence that technology necessarily moves us forward, improves our lives, and brings us closer to some promised utopia. Indeed, the history of technology is deeply invested in these narratives of invention and innovation, of progress

and futurity, and maps neatly onto the assumption that success is exclusively defined in terms of consumption and reproduction. It is this dominant utopian mode that queer failure looks to refuse, offering up ways of living otherwise.

Nonetheless, this failure is not without its limits. It suggests a binary state that is negatively defined in relation to a normative understanding of success. It presumes its own legibility as failure, and does not directly account for the ways in which queer modes of living are often negotiated and opaque. Thus, for Nicholas De Villiers (2012), it is *opacity* that enacts this mode of refusal and extends the work of Eve Sedgewick (1993) to trouble the epistemological claim that sexuality is a secret that can be known. Here queerness refers to those gaps, dissonances, lapses, and excesses of meaning that emerge when one's gender or sexuality are not made to signify monolithically. For De Villiers it is not the production of meaning through representation that is crucial here, but rather "the possibility of nonmeaning and nonknowledge as 'queer' strategies' (15), a tactic he terms *queer opacity*. For media theorist and artist Zach Blas (2012) it is *darkness* that unites each of these forms, a term derived from Halberstam's proposition that for queer artists,

failure presents an opportunity rather than a dead end; in true camp fashion, the queer artist works with rather than against failure and inhabits the darkness. Indeed the darkness becomes a crucial part of a queer aesthetic. (96)

Transforming this term, Blas (2012) suggests that we might understand queer darkness as not only an aesthetic but an ethos, a "refusal to cohere, to become legible, to see like a state" (129). Drawing on Galloway's (2012b) examination of the coterminous rise of cybernetics and black box technologies with the invisible revolt tactics of the black bloc, Blas suggests that queer darkness has a particular technological valence, while simultaneously attending to the relation between darkness and blackness evoked by Martiniquan philosopher Édouard Glissant's demands for a "right to opacity" (1997, 189–194). Here, we begin to see the expansion of *whatever being* into forms of life that account for refusal as a situated practice – one that is explicitly raced and embodied, even as it would prefer not to articulate the situatedness of any single identity form.

How then might we identify or describe this ethos if by its very definition it resists such a naming? Perhaps unsurprisingly, here many scholars of negativity, indifference, and obfuscation turn to literature, evoking the intractable figure of refusal and titular character of Herman Melville's 1853 short story "Bartleby, the Scrivener: A Story of Wall Street." While the most prominent analyses of Melville's "Bartleby" concern changes in the nature of the workplace and transformations under capitalism in antebellum America, many scholars have identified in Bartleby's infamous refusal a formula for the kind of liminal subjectivity that exists within a structure of power but refuses legibility to it, a mode of being that is at once disruptive but passive, a presence that refuses to be situated, contextualized, or named. In his 1993 essay "Bartleby; or, The Formula," Gilles Deleuze articulates this mode clearly:

The formula I PREFER NOT TO excludes all alternatives, and devours what it claims to conserve no less than it distances itself from everything else. [...] If Bartleby had refused, he could still be seen as a rebel or insurrectionary, and as such would still have a social role. But the

formula stymies all speech acts, and at the same time it makes Bartleby a pure outsider to whom no social position can be attributed. (Deleuze 1993, 73)

As with the whatever, we find in Bartleby not a politics of resistance but a refusal of the very terms of engagement. In "Bartleby, or On Contingency," Giorgio Agamben (1999) again extends Deleuze, suggesting that Bartleby may be viewed as "the extreme figure of the Nothing from which all creation derives; and at the same time, he constitutes the most implacable vindication of this Nothing as pure, absolute potentiality" (253-254). The Nothing once again evokes the whatever as neither productive nor oppositional, but rather as a subject filled with absolute potentiality, a subject that refuses the very notion of an authentic self that may be made externally accessible. As Agamben notes, "only inside an experience that has thus retreated from all relation to truth, to the subsistence or nonsubsistence of things, does Bartleby's 'I would prefer not to' acquire its full sense (or, alternatively, its nonsense)," as "potentiality, insofar as it can be or not be, is by definition withdrawn from both truth conditions and, prior to the action of 'the strongest of all principles,' the principle of contradiction" (261). It is perhaps telling that "Bartleby" may also be read as a tale of alienated labor – an alienation produced in part by a bureaucratic apparatus concerned with the classification and reproduction of knowledge, and a media technology for the management of information and, by extension, of those bodies and lives made legible as such. 8 In this sense Bartleby's alienation is not unlike our own, yet while Bartleby might serve as a model for a particular mode of refusal, the question remains as to how we might operationalize this form in a technological culture in which one's preferences need not be expressed, but are rather extracted.

As should be clear by now, I am not the first to suggest that an ethos of refusal is the only tenable position in the face of this broad system of identification and capture, yet the question of what such a withdrawal might look like is a fraught one. This is no doubt due to the very nature of such a provocation. If what we are describing is precisely that which escapes representation, it would seem impossible to prescribe its enactment as a discrete set of tactics. If all representation is essentially recuperable in this way, we are left only with a set of broad conceptual frames: opacity, darkness, the whatever. In lieu of such abstractions, we might instead choose to explore this gesture in the context of a concrete technical object, one that puts us directly into contact with those structures that, in the most banal, everyday sense, articulate this form of soft power. I am speaking here of the database, though more precisely to the relational database management system (RDBMS), and its most prevalent articulation, the Structured Ouery Language (SOL). Through an examination of this database form I propose a refiguring of this politics of refusal into a tactical subtraction, a corrosive heist of one's own metadata that refuses the utopian imaginary of a space outside systems of control, opting instead for a strategic withdrawal of legibility to that system, a making absent.9

Data relations

Database Management Systems are central to the organization and retrieval of information by computational systems. Their functional task is to facilitate interaction with multiple end users, hiding the complexities of data manipulation by providing a dynamic and platformindependent system in which data may be queried, modified, and deleted at will. Far from a contemporary technique, database management has been one of the central tenets of computational bureaucracy for the past 60 years. As computer historian Thomas Haigh (2009) notes:

The database management system is the foundation of almost every modern business information system. Since the 1950s, the storage, retrieval, and updating of large volumes of stored data has been a key requirement for most computer applications, which is why *data processing* was the common name for administrative computing work from the mid-1950s to early 1980s. Nothing has been more vital to the computer's success as an administrative tool than the development of software to hide the complexities of data manipulation from application programmers and end users. (6)

In contrast with the relative invisibility of database management systems as a backend technology inaccessible to most users, the database as a broad epistemological framework has been a central object of research and criticism in media studies and the digital humanities for decades. This is no doubt due to the significant shift that the database presents to the study of analog media forms such as literature and art, in which established methodologies for the analysis of narrative, aesthetic, and form must come to account for what media theorist Mark Poster (1990) has described as "database discourses." Likewise, just as the database has transformed traditional objects of critique, the database itself has become an object of analysis for scholars invested in the politics of technical systems. As Stephen Ramsey (2004) notes in *A Companion to Digital Humanities*, decisions such as

the inclusion of certain data (and the attendant exclusion of others), the mapping of relationships among entities, the often collaborative nature of dataset creation, and the eventual visualization of information patterns, all imply a hermeneutics and a set of possible methodologies that are themselves worthy objects for study and reflection.

Over the past 30 years much has been written on the ways databases structure knowledge, transform access to that knowledge for researchers, governments, and corporations, and have even come to displace the ontological supposition of what constitutes the subject itself. The database is today a near ubiquitous form, structuring and transforming not only the ways we access information but also the ways we have come to understand the world and ourselves as information, that is, as producers of data to be mined, processed, and interpreted. If, as Alexander Galloway (2012c) has suggested, "whenever a body speaks, it always already speaks as a body determined as such by various infrastructures both of and for identity formation" (121), I would suggest that we are today each compelled to speak our identity in the language of the database. Rather than presume a space outside of or prior to the database form from which we might posit a critique, I would instead ask what tools and techniques a material history of database systems might offer our contemporary database society. To this end I turn now to an examination of a particular database form in order to understand the way it structures knowledge, such that we might begin the task of identifying within its logic a space from which to articulate a queer ethos.

By far the most prevalent database system in use today is the relational database management system, and the Structured Query Language that serves as the standard language for communicating with that system. Facebook, Google, LinkedIn, Twitter, Wordpress, and

any number of other platforms all use a variant of SQL for at least some of their data management. Beyond social media platforms database technologies such as MySQL, PostgreSQL, and Microsoft SQL Server are widely used in businesses, hospitals, banks, and universities, such that it would not be an exaggeration to suggest that almost every person with access to a computer touches something structured by SQL every day. Our technical world is, in effect, shaped by the relational database as a model for organizing and retrieving information, such that its structure and affordances determine what is made legible to that world.

Prior to the 1980s databases were structured using a hierarchical or navigational system, in which records or objects were organized following the logic of a branching tree structure. Retrieving information from a navigational database required a given system to follow a so-called *pointer* or *path* from location to location down the tree until it found the appropriate record. The logic of the system was explicitly linear and procedural, and not without significant disadvantages. If, for instance, the structure of the database needed to be changed to accommodate new locations or remove old ones, the paths that connected the system could become broken or scrambled. To borrow an example from digital humanities scholar Alan Liu (2009): "It was like giving someone elaborate, procedural directions to retrieve a book from the library by taking the elevator to the fifth floor, turning left, going down four aisles (and so on), only to find that someone had added an extra aisle or even a whole floor" (250). Such a system lacked logical independence, as its function was dependent on an underlying structure that was highly rigid and did not easily adapt to change or transformation.

Beginning in 1970, computer scientist E. F. Codd began developing a new model for database management and design while working at IBM. In contrast with existing navigational systems, Codd's model proposed that a database could be thought of as a set of *relations*, and that a relation could, in turn, be thought of as a set of propositions such that all of the apparatuses of formal logic could be directly applied to the problem of database access (Date 2001). In the relational database model, information would be recorded as a set of data composed of a table consisting of individual records or rows, each holding data in discrete columns or fields. Unlike earlier navigational models, "each record in this table consists of a set of entities whose interrelation the database describes through the table structure alone, independent of any awareness of the underlying physical data model and even of the locational order of records." Instead, "data are related through a pure mathematics of value comparison and manipulation based on set theory and its database variant, relational algebra" (Liu 2009, 250). Data in these tables is thus parsed through computable set operations to produce a logical set independent of any restriction imposed by the sequence or connection of data in the internal program or physical system.

An example will be useful in clarifying this distinction. As discussed earlier, one of the most common uses of any database system is to track information about its users: their name, gender, hobbies, preferences, and so on. This task is central to the structure and function of social media platforms, online advertising, and other network-enabled technologies. ¹² In the navigational approach this data would all be placed in a single structure with pointers or paths to help navigate between records and find the desired information. By contrast, in the relational model, this data would be normalized into a user table, a gender table, a hobbies table, and so on, and made accessible through a declarative

programming technique that asks the system *what* to fetch instead of *how* to navigate to it. ¹³ The relational system thus functions independently of any underlying physical structure, and is largely indifferent to how data is organized or where it is stored in the database.

While much could be made of this shift from a logic of fixed hierarchy and inheritance to one of evolving relations among entities, significant here is the way the relational database comes to account for gaps and externalities within a predefined system. Unlike earlier navigational systems where changes in a given path would trigger an error condition, relational databases allow for connections and relations to evolve and transform, such that the system will not break if an item or path in its database is modified or removed. Relational databases are thus flexible structures well adapted to systems of control and management, as data may be freely inserted, deleted, and edited, as the database will perform whatever maintenance is needed to present a legible view to the application or user, a process known in database theory as normalization. This flexibility is present throughout the relational database in its initial development and only expands as Codd formalizes his definition over the following decades, culminating in a list of 12 "rules" that describe what is required of a database management system in order for it to be considered relational (Codd 1985). While Codd's earliest models all depended on a bivalent logic known as "the law of the excluded middle" (anything that is not true is false and anything that is not false is true), in Codd's 12 rules he introduced the systematic treatment of NULL markers for representing "missing information and inapplicable information in a systematic way, independent of data type" (Codd 1985).

As databases are tools for the efficient storage and retrieval of information, most systems prize the efficient and accurate reproduction of discrete information. Therefore, in theory, every value in a database should be evaluated as true or false (for example, either a year is or is not 2018). However, "in the real world there is enormous pressure to enter records into a database even if some of the values in a record are either unknown or nonexistent (e.g., no declared publication date for a book)" (Liu 2009, 254). As a result, most all major relational database programs allow for the inclusion of NULL as a means of marking this space of indeterminacy. Significantly, unlike other uses of null in computer science, such as null pointers in C++, null characters in ASCII, or set theory's null set, NULL in the relational model is not a synonym for an empty string or the numerical value 0. While the number 0 would indicate an explicit lack of some quantifiable thing, and therefore be numerically meaningful in the calculation of a given value, NULL indicates the absence of any value whatsoever, such that linguistically it is not considered a value at all, but rather a "marker" that indicates a state of indeterminacy. Any attempt to incorporate null markers into numerical legibility will therefore contaminate the database as a whole, since, as N. Katherine Hayles (2007) notes, "any operation containing a null value will give the same as its result Null values can thus quickly spread through a database, rendering everything they touch indeterminate" (1605). Once again an example will be instructive here. As discussed above, relational databases are highly adaptive, and will work around NULL marks to produce a legible data set that excludes them. If the database record of a Facebook profile contains certain unknown values, such as a user's gender, it nonetheless remains legible to and will not break the database table even if it restricts the kinds of comparisons that can be made to it. Queries by advertisers seeking only female-identified users will not contain the profiles of users whose gender

is unknown, but comparisons with these unknown records will not produce a contaminating indeterminacy that disrupts the proper function of the database as a whole.¹⁴ The use of NULL thus marks an indeterminate mode of being that is at once within and outside, part of and illegible to a discrete system of relations, a "middle" that explicitly marks an indeterminate, incalculable, unknown state of being.¹⁵

Yet for many Codd's inclusion of the NULL marker remains a controversial intervention in database theory and design, and some scholars in computer science refuse to acknowledge any database system that contains NULLs as relational, as the epigraph that begins this article clearly suggests (Date and Darwen 2006). For these researchers the indeterminacy of a three-valued system is counterintuitive, producing inconsistencies that complicate its logical function. Yet one of the earliest products of Codd's three-value form is the Structured Query Language or SQL, developed at IBM in the early 1970s and infamous for its widespread use of NULL. The ubiquity of SQL cannot be overstated, and along with it the ubiquity of this indeterminate third form. While the NULL marker may be viewed as a deviation from the pure logic of relational systems, it is none-theless a ubiquitous one. ¹⁶

I would refer not to

In the NULL marker we find a space for indeterminacy, that is, for a mode of subtraction that is nonetheless deeply situated within the logic of the system it inhabits. It is here that we might begin to surface a queer technics lying at the heart of the database form. Here, I mean queer in the broadest sense, as a means of inhabiting a third space that is both legible to but cannot be made productive for a given system of meaning. I would resist any effort to view the NULL marker as inherently or exclusively queer, or as corresponding directly with a discrete set of lived conditions, but likewise I would insist this is not simply a slantwise appropriation of a technical object or a "queering" of the database form. Instead I am suggesting that the NULL marker corresponds with the epistemological condition of queerness as an excessive illegibility collapsed into an unwieldy frame, an aberrant third-ness within an otherwise normative system of relations. In this sense, NULL is not a state of being, but rather a mode of relation invested in the production of unknowable markers, a practice of becoming.

Yet the NULL mark is more than an abstract relational mode, and if we look beyond its technical articulation in the database form we find a broad historical precedent for modes of living that have for centuries modeled this form of negotiated visibility. In refusing the generic formulation of a whatever subjectivity, we may insist instead on the centrality and political exigency of those forms of life that have historically embodied, in Alexander G. Weheliye's (2014) terms, the negative ontological ground for the construction of Western modernity for the past 500 years. While becoming NULL may suggest an explicitly queer relational mode at the heart of computational systems, it is essential that we recognize the deeply political stakes of this strategic illegibility, particularly as it adheres to racialized and sexualized bodies that have for centuries developed tactics for the negotiation of visibility with respect to systems of power that would surveil, quantify, and police them. Extending this work, we might argue that the dehumanization of the subject transformed into data – which is a central tenant of contemporary techno-capitalism – is predicated on the

dehumanization of black and queer life that is the precondition for the construction of the white political subject made newly visible to power through the targeting and tracking of identity, a formulation queer theorist Shaka McGlotten (2014) names *Black Data*. For McGlotten, "black queers help to frame what is at stake in these debates insofar as we quite literally embody struggles between surveillance and capture, between the seen and unseen, between the visible and invisible." Simone Browne (2015) likewise proposes a *dark sousveillance* "as a way to situate the tactics employed to render oneself out of sight, and [to name] the strategies used in the flight to freedom from slavery as necessarily ones of undersight" (21). Following McGlotten and Browne, we may likewise insist that if we are to understand the conditions of visibility under technology that the NULL marker obfuscates, we must make central those forms of life demanded of, developed by, and extracted from marginal and marginalized subjects for centuries. Centering black and queer life in this way offers a radical reformulation of the subtractive mode offered by the NULL marker as a technological form, that is, as a tactic of negotiated visibility that removes itself from the productive logic of the system that would seek to identify it.

Becoming NULL thus tasks us with making visible those relations into which we are interpellated, such that we might cultivate a subtractive illegibility to them. Doing so does not allow for the illusion of some privileged space outside of this predetermined system of relations, as we are of that system even as we seek to manufacture an illegibility to the normative function of it. As such it does not correspond with the utopian imaginary of a not-yet-here, but instead exploits a mode of living within a present system that is saturated with technologies of identification. While one cannot simply refuse the tracking and profiling that form the very conditions of engagement with contemporary technology, we might render such data tables inefficient, inaccurate, or indeterminate by falling out of legibility to them. This manufacturing of contradiction exposes the very conditions of who and what are made visible in this way, such that the NULL form may nonetheless produce a transformative critique.

To be clear, the NULL mark is but one site at which queerness may be seen to operate within those technical systems that continue to shape the form and articulation of contemporary identity. We should not take this as a singular object or practice on which to fixate, as it is rife with contradiction and continues to transform alongside those technologies it informs. Nonetheless, an engagement with the NULL marker and its attendant logics suggests a need for queer theory to engage with the particular forms our technology takes, and not simply the effects those technologies have on queer forms of life or the use of those technologies by queer-identified subjects. Indeed, queer and critical race theory are uniquely positioned to imagine modes of being beyond the compulsory logic of visibility that dominates contemporary discourses within and beyond those corporate enclaves that shape the tools with which we think, work, and relate with one another.

Notes

 As Bivens (2015) has shown in her work on Facebook's coding of gender across the platform's 10-year history, while the 2014 change may affect the representation of gender on the level of its interface, this spectrum is not mirrored in the storage of that information within Facebook's database or in its advertisers' access to gender data. Instead of registering gender selection as

- a meaningful value corresponding with these 58 total options, gender information is extracted from a user's pronoun choice, which is functionally limited to three options: male (him); female (her); neutral (them). Ad targeting is even further restricted to only male and female.
- I use this term in a double sense: in computer science, identifiers are lexical tokens that name entities, such that identifying entities makes it possible to refer to them, which is essential for any kind of symbolic processing.
- 3. On the political and ethical tension between the utopian imaginary of disembodied network technology and the racialization of subjects by those same technologies, see González (2009).
- 4. I refer here to Foucault's work in *Discipline and Punish* (1977/1979) while also acknowledging his refusal of identity as an essential quality of an individual subject, but rather describing the self as a discursive formation produced by the ways individuals act upon themselves within structures of power to produce particular modes of identity and sexuality. Nonetheless I would argue that contemporary discourses on identity and (anti-)normativity correspond with this earlier disciplinary model without taking into account the ways in which society has been transformed by new technical forms, namely computation.
- 5. I draw here on Adrienne Rich's work on "compulsory heterosexuality" (Rich 1980).
- Most recently Galloway (2017) has outlined this framework as a fundamental rift in contemporary philosophy between, in his words the "Swervers" and the "Fuck-Annies," the latter in reference to Lee Edelman's refusal of the social order and the child in *No Future* (2004).
- Galloway (2012, 121) has acknowledged this inequality to some degree, arguing for the decoupling of difference from both injustice and valorization, which he suggests is more and more possible through the figure of the whatever.
- 8. For a detailed history of paperwork from the mid-eighteenth century to the present, see Ben Kafka (2012).
- 9. This ethos of subtraction clearly resonates with the tactics of obfuscation described by Brunton and Nissenbaum (2015) but refuses explicit ties with the language of privacy and its ties to a petit-bourgeois individualism.
- 10. Much of the backend functionality of these sites is inaccessible to researchers, and in recent years large platforms such as Facebook have turned to other database models to account for the massive scale at which their platforms must operate. Nonetheless the RDBMS and SQL remain the most prominent database forms, and their logic informs that of more contemporary systems.
- 11. To give but one example, all Android and iPhones have access to an SQL database called SQLite, and many mobile apps developed for Google, Skype, and DropBox use it directly.
- According to Priymak (2013), Facebook claims to have one of the largest MySQL database clusters in the world, comprised of thousands of servers across multiple data centers on two continents
- 13. A restrict operation, for instance, would convert the data set into a derivative table showing only those records that correspond with a given field, restricting all but those records matching a particular gender.
- 14. To be clear, as Bivens (2015, 5–7) notes, Facebook does not allow for a NULL mark in place of a user's gender value. In its initial deployment *c*.2004 the site offered three possible gender values: 1 for female, 2 for male, and 0 for users who chose not to respond. With the introduction of custom gender options in 2014 the number 6 was added to indicate a custom value that functioned identically to 0 as an indeterminate (though not formally NULL) value.
- 15. Here the NULL marker diverges from debates in queer studies between those who would seek inclusion in normative social institutions such as marriage and the military, and those who see the task of queerness as the dismantling such institutional norms (Warner 2000). The NULL marker does not offer an outside to the protocological structure that contains it; it simply manufactures an illegibility to the productive functioning of that system.
- 16. In 1990 Codd proposed a four-valued system, which included "Missing But Applicable" and "Missing But Inapplicable." That said, the idea of multiple Nulls with different definitions

- has not gained widespread acceptance in the database practitioners' domain but remains an active field of research.
- 17. While SQL remains widely used, there is a growing enthusiasm for explicitly non-relational or NoSQL databases, which work better at scale and run well on distributed systems such as cloud services.

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