Appealing to Your Better Judgement: A Call for Database Criticism

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Included in the Gathering: Electronic Literature [Frame]works for the Creative Digital Humanities
On the database itself as a cultural and textual artifact, a site where reading and interpretation combine with quantitative methods.

Like so many in comparative literature, I knew exactly two works of electronic literature as a BA student: *Dakota* by Young-Hae Chang Heavy Industries and Shelley Jackson's *My Body — a Wunderkammer*. I loved both of these works, but was skeptical about the future of digital literature considering we only encountered it in classes, never in daily life. Imagine my delight when I found out about public electronic literature databases! It felt like entering a candy shop, filled with so many works I could browse through endlessly. Works that I liked, works I did not like, and works that I really wanted to read but unfortunately were no longer available online. Although various individual works became close to my heart, it is the impact of having all that data about so many works at my fingertips that stayed with me most.

Of course, the databases I enjoyed so much did not materialize out of thin air. Multiple research groups around the world are eagerly implementing documentation practices to preserve electronic literature and prevent it from disappearing due to technological obsolescence. Within the field of electronic literature, there are numerous directories, collections, weblogs and libraries of varying scopes and sizes, often developed within the larger context of a research project. These databases function as ongoing developments as well as a main outcome of the research projects in which they were originally built and funded. Research teams highlight the function of their database as both a research space and a form of dissemination. As a result, engagement with online databases has become a leading way for scholars, artists, and readers alike to encounter works of electronic literature as well as get an overview of the field.

Although acknowledged as an indispensable and difficult process, database construction is, in practice, too often underestimated as merely a preparatory task in Digital Humanities. Authors in gender studies, feminism and postcolonial theory are key actors in thinking through the politics of Digital Humanities in gathering and using data, with recent publications such as the edited volumes *Bodies of Information: Intersectional Feminism and Digital Humanities* (eds. Losh and Wernimont) and *Disrupting the Digital Humanities* (eds Dorothy Kim and Jesse Stommel). Moreover, Katherine Bode's *A World of Fiction: Digital Collections and the Future of Literary History* also argues in detail how the "supposedly precritical activity" (3) of data collection actually form "extended historical argument[s]" (3) about the data and research process. As the mainstream attitude both in academic and non-academic settings underestimates the value and complexity of public databases, this conception leads to a lack of apparatus in regards to the reception as well. As Burdick et al. argue: "aside from the struggle for resources, there is an urgent need for a critical language to describe digital projects and for common – yet flexible – standards for evaluating animation, navigation, information architecture, and other features of born-digital projects and platforms" (114). Scholars in electronic literature and digital humanities have taken tentative practice-based steps to fill this lacuna. By scrutinizing this progress from a meta-perspective, I envision how to shape the practice of evaluating databases in the present and future.

In this article, I address the reception and evaluation of databases as part of our scholarly practices. Through the conception of database criticism, I provide a critical apparatus to approach databases in terms of aesthetic and qualitative characteristics. Although database criticism can be a valuable practice across fields that have public databases, I develop this framework specifically in electronic literature because of its reflexive nature when it comes to the application of digital media as well as the great reliance of the field on the existence of databases. Digital Humanities is the use of digital methods and tools in humanities research. In my reflection, I pay special attention to the humanistic processes of engagement with digital methods and tools. Databases contain data, capta, information, but they are also texts. At the core of interacting with texts are the practices of reading, studying and evaluating. Reading is the primary interaction with texts, and approaching databases as texts advances our understanding of interacting with databases. This leads to the scholarly activity of studying databases as cultural objects or media texts. In parallel to other forms of academic dissemination such as monographs and edited volumes, I finally argue for an evaluative database criticism that has aesthetic and qualitative criticism at its core.

Reading databases

Although electronic literature databases are generally conceptualized as networks of information, engaging with them involves reading many pieces of text, from scanning lists of works' titles to reading entries of specific works that include both metadata and descriptive entries. As users and researchers, we should not overlook our own acts of reading. Throughout this browsing and reading process, users interpret the database

both in constructing ideas of what an individual work will be like as well as creating or adjusting their mental image of what the field of electronic literature entails. Focusing on the activity of reading databases allows for a reflection on the database format and its presence in daily and academic life. Researchers use databases by applying quantitative methods to literary texts and bibliographic data, but rarely analyze the database structures themselves. Literary studies have a long history of developing theories and methodologies around reading and understanding texts, but how can we make use of this research when reading databases?

The methodology of hermeneutics describes and prescribes the process of interpretation of texts in which every part informs the understanding of the whole and the whole informs the understanding of each part. Hermeneutics is a diverse field of study, religiously and non-religiously driven, and prominent hermeneutic thinkers such as Friedrich Schleiermacher and Hans-Georg Gadamer are foundational in many comparative literature programmes. Following Luce Irigaray, Lisa Watrous critiques hermeneutics as "limited to a simple uncovering of a taken-for-granted tradition" (162), asserting that "understanding must also include an opening for the reconstruction of the relational – an ethical call" (162). Lorraine Code, however, especially values Gadamer from a feminist perspective because of his "engaged, situated, dialogic, and historically conscious" (4) hermeneutics. A major strength of hermeneutics is its consideration of the process of interpretation as an active process. Unlike pure close reading, criticized by Bode for presuming the "centrality and assumed singularity of the text" (33), hermeneutics proposes that context and readership are key elements of interpretation. In addition to part and whole, Gadamer focuses on the oscillation between text and context. The backgrounds and expectations that the reader projects onto a text, our "fore-meanings" (Gadamer 280), influence our navigation and interpretation as well as the lessons readers take from the text. Gadamer sees hermeneutic interpretation, then, as an opportunity for the reader to examine the origin and validity of their "fore-meanings".

The absence of linear progression in reading databases disrupts as well as enhances the function of the hermeneutic circle. Although there have been various nonlinear reading (and writing) practices throughout history, the hermeneutic circle generally presupposes a finite text that can be read from beginning to end: characteristics that databases seem to lack. Perhaps this is the reason that interpretation is less explicitly addressed when databases are concerned. This is, then, a great place to start redefining what acts of interpretation are as active processes. The interpretation of databases, after all, still follows the hermeneutic circle outlined above: individual entries are read with the knowledge that it is one text in a larger database, and the vision of the entire database is influenced by reading individual texts. Looking for works, browsing lists, and clicking hyperlinks in online databases makes for a multilinear reading experience. Unlike reading hypertexts, however, readers do not aim to construct a sequential narrative from the subset of nodes they read, but rather interpret the texts as a database as well. The perspective of the database allows for an uncovering the elements of organization and overview. Interaction with the database constructs imaginaries, which

include ontologies and ideologies of the database and its content. As Lev Manovich famously states: "Database (the paradigm) is given material existence, while narrative (the syntagm) is dematerialized. Paradigm is privileged; syntagm is downplayed. Paradigm is real; syntagm is virtual" (49). Manovich juxtaposes database and narrative, but the database's affordances do set up the potential for narrative and coherence. Readers actualize this potential through the process of interpretation, whose "fore-meanings" include a familiarity with databases in daily life. This approach makes an updated model of the hermeneutic circle suited for reading digital texts.

Tom van Nuenen and Inge van de Ven's digital hermeneutics integrates humanistic methods of interpretation with the technical aspects of digital humanities methods:

> Digital hermeneutics in our conceptualization describes a circular structure that vacillates between the big data ('N=all') perspective of the whole, and a close reading of the part, or the sample.(4)

Their conception of digital hermeneutics differs from more general uses of the term in its proposal of a specific method. Van Nuenen and Van de Ven posit digital hermeneutics as "an alternative perspective that considers reading in terms of scale variance, of zooming in and out between part and whole, thus discovering the myriad shades of grey between close and distant" (3-4). They differentiate between four scales of texts that corresponds to four methodological steps: contextual reading, distant reading, hyperreading, and close reading. These scales are subsequently applied to the same corpus, giving complementary insights. For the first three readings, Van Nuenen and Van de Ven use computational methods followed by the non-computational close reading. In addition to applying digital hermeneutics to database structures rather than 'actual' texts, what follows are the different modes of reading that users of public databases will recognize, rather than separate computational methods to be deliberately employed. Instead of regarding electronic literature databases as very specific functional objects, this approach shows them as media texts, as objects for engagement.

Van Nuenen and Van de Ven's *contextual reading* involves a comparative corpus analysis, assessing the specificity of their main corpus. This contextual or comparative scope is integral to the engagement with electronic literature databases. The field has numerous collections and databases, each of which have a specificity in approach or corpus. The Consortium of Electronic Literature (CELL) is an organization that develops infrastructure to bring together various databases. One main output of CELL is a search engine that draws from ELMCIP Electronic Literature Knowledge Base (ELMCIP KB), Electronic Literature Directory (ELD), Nouvelles Technologies, Nouvelles Textualités Répertoire (NT2), Archive of German Electronic Literature (ADEL), Ciberia, and Arquivo Digital da POesia.EXperimental (PO.EX), and counting. This means that one can search a work of electronic literature via the CELL search engine and find multiple records of that work from different databases. Searching for Antero de Alda's *Scriptpoemas*, for example, retrieves records from ELD, ELMCIP KB, and PO.EX. This allows the reader to see which elements of the works are represented, whether they are using the database as an entryway to the work itself or they already

know the work itself and want to know (or contribute to) how it is documented.

When discussing reading databases, *distant reading* is likely the first thing that comes to mind. Through computational methods, researchers can look for patterns in a large corpus of data, often using statistics or network visualizations. Jill Walker Rettberg, Scott Rettberg ("Emerging"), and Álvaro Seiça ("Digital"), for example, have all used data from the ELMCIP KB for quantitative as well as qualitative research. Yet the 'reading' part of 'distant reading' is commonly debated (Drucker "Why"). When considering the database as the source text rather than the methodological intermediate step, the reading process is much more prominent. When, even playfully, browsing through any electronic literature database, listing and counting are common activities. Researchers can see how often tags are used, how long lists are, and draw conclusions from these counts. Even before the exact statistics and visualizations, this provides an overview perspective, zooming in and out based on numbers.

Distant reading in this non-computational sense, then, overlaps in part with Van Nuenen and Van de Ven's third scale, *hyperreading*, for which they use a concordance tool. Multiple specialized concordance tools for digital humanities research can reveal the immediate context of words in texts. On a basic level, however, everyone hyperreads using simple search functions and filters, reflecting the concept of hyperreading as the fleeting, fragmented way in which people engage with internet texts (Hayles 72). Whereas a contextual reading involves looking for the same creative works in different databases, hyperreading involves different creative works in one database. Searching for "database narrative" in the ELMCIP KB, for example, shows the immediate context of the phrase without (or before) reading the full records and actual works. It turns out that "database narrative" is used in two specific contexts, altering the concept: it refers specifically to narratives with an explicit database aesthetic, but also more generally to any narrative that needs a database to function, thus including most combinatory and hypertext works as well. In addition to finding an overview of the field, this type of hyperreading provides both the anticipation of reading individual works of electronic literature as well as the sheer pleasure of browsing itself.

Finally, Van Nuenen and Van de Ven *close read* fragments of their corpus. Due to the required level of engagement, close reading practice generally focuses on understanding specific sections rather than full texts and extrapolating these analyses to a body of work. As long as the reader takes the database seriously, electronic literature databases do not resist close reading methods nearly as much as they are generally assumed to. This approach can be especially salient in fields where documented objects simply cannot be accessed directly. In electronic literature, documentation and metadata are often surrogates for actual works that have become unavailable due to technological obsolescence or copyright issues. When close reading the records, one does not only get an understanding of the work recorded but also an understanding of the record itself. Close interpretation happens in many subareas of the database, perhaps most obviously when reading the description sections present in nearly every electronic literature database. The ELMCIP KB explicitly asks for a short description and allows

contributors to copy-paste descriptions of works from elsewhere as long as they source it. Even these little texts can be close-read alongside the folksonomic tags and many fields of metadata. Other databases, such as the peer-reviewed descriptions and glossary in ELD and the so-called "enriched" records of NT2 have longer, more interpretative descriptions that can themselves be cited. Many databases in electronic literature also display the creators of individual records, giving authority to the record as text. In any case, users are expected to read the texts to familiarize themselves with the database and its content, even if their eventual goal is to do a quantitative or qualitative analysis of individual works.

Bode argues that "in conceiving data and computation as providing direct and comprehensive access to the literary-historical record, they deny the *critical and interpretive activities* that construct that data and digital record and make them available for analysis" (20, my emphasis). This is a warning for researchers to include a critical perspective in doing quantitative research, of course, but this focus on "interpretive activities" is also a reference to the act of reading. Not everyone considers their careful engagement with databases as reading, despite reading many textual elements. Others might not realize that their readership happens in databases, despite the omnipresence of the database structure in digital culture. Yet everybody reads databases, whether we are aware of it or not. Media scholar Christiane Paul states that "the aesthetics of a database are inherently relational, be it on the level of potential (the data container being its carrier) or the actual relationships established by the software component" (98). This relationality can be parallel to the various levels of analysis of digital hermeneutics when applied to databases. I encourage scholars to consider the database as text and to take seriously the use of the database as acts of reading and interpretation specifically in combination with quantitative methods.

Studying databases

What follows from reading databases is the opportunity to study databases as cultural and textual artifacts, beyond the methodological artifacts they are generally designed to be. I concluded in the previous section that everybody reads databases, whether they are aware of it or not. Simply speaking, then, we can take the practice of studying databases as an awareness of reading practices, making the databases suitable and necessary objects for cultural studies. In this section, I give an overview of the ways in which the academic field of electronic literature has approached databases as research objects, which I link to the ideological status of databases in Digital Humanities and society at large. This section functions as a bridge between a theorization of reading databases and the necessity of evaluating them.

Despite close collaborations and exchanges, there is diversity within the approaches to writing about electronic literature databases: PO.EX and the ELMCIP KB have a variety of publication types; CELL discusses their progress primarily within sessions at conferences; Ciberia and NT2 in descriptive articles; ELD in ontological discussion; and there are no publications about ADEL. Nearly every publication refers to the other

databases to explain their specific approaches. PO.EX, NT2, and Ciberia in particular highlight their language-specific content as a corrective to the field's focus on English-language works in the past. The aim of documenting a field also leads to conversations about canonization, which is most centrally discussed in Saemmer's comparative study and is peripherally mentioned in many sources (Goicoechea; Goicoechea and Sánchez; Pablo and Goicoechea; Scott Rettberg "Collective"; Scott Rettberg "Developing"; Rettberg and Baldwin; Tabbi; Torres). Combined with the fact that the implementation in CELL is nearly always seen as a major objective (before implementation) and a major accomplishment (during/after implementation), these reports and presentations show that project leaders think of their own databases as not simply a documentation process, but a connected, accessible, and productive part of the future of electronic literature. As such, we can approach these databases as media texts and objects with cultural value in the artistic and academic electronic literature community.

These texts are complemented with an emerging number of publications that can be categorized as studies of databases from a humanities perspective. Scott Rettberg's keynote address at "The Digital Subject" International Conference ("Collective"), for example, takes the perspective of collective memory to describe the ELMCIP KB, which exists "not only to preserve the past of a field, but also to provide a platform for its further development" ("Collective" 8). In doing so, Rettberg links database structures to their role as media texts: "databases that help to provide information and access to many works, provide a sense of critical and cultural context, and provide an apparatus for documenting collective memory of works and practices that may or may not be readable in ten years or twenty" ("Collective" 9). The incorporation of collective memory in a reflection on the function of the database opens up opportunities for more specific and theoretically grounded research into databases. Álvaro Seiça also approaches the database from the perspective of memory, but takes his theoretical influences from Derrida and poststructuralism rather than the social sciences from which collective memory originates: "the archive is our attempt to preserve memory, in this case, to preserve digital literary works from being lost. We foster the creation of multiple archives and databases in order to combat our state of fearing loss" ("Electronic" 97). Seiça points out the need to study databases as media texts due to their media specificity: "given the unstable character of distributed, networked and programmed media, and the consequent fragility of digital artworks, the issue of its archivization and preservation has raised a lot of debate and different critical angles" ("Electronic" 98). In these ways, scholars in the field of electronic literature grapple with ways to describe and understand the central place that databases have in the field.

Adeline Koh assesses that Digital Humanities projects and talks put a strong emphasis on tools, data analysis and computation (40), going on to say: "what *aren't* you going to see as much of? Emphasis on *why computing,* the *conditions under which computing is manufactured,* a *cultural analysis* of the ideologies of computing" (40). And it is these underrepresented elements that play such a powerful role in the development and directions of Digital Humanities, which can be discussed from the perspective of databases. The ideological status of databases in Digital Humanities reflect the larger

context of the ideological status of databases in society. Cultural critic and philosopher Hiroki Azuma argues that the grand narrative has been replaced by a database model of small narratives, which he finds in his analysis of the subculture 'otaku', consisting of manga and anime collectors. He argues that the grand narrative is thus becoming a "grand nonnarrative". The developed reading proficiency on different levels of abstraction, then, means that this so-called grand nonnarrative in my understanding is not that far removed from the grand narrative; in addition to all the small narratives in and about works, reading and interpreting databases does instill a singular narrative about the ontology of electronic literature. This cultural analysis is reflected in the ideology and conditions of electronic literature databases. Although not as normative as a canon, documentation is inescapably a value judgment that works are meant to be preserved, that they belong to a grand (non)narrative. The reasons why certain works are included and others are not can be ontological, social, or practical, nevertheless they construct and perpetuate a narrative about the field of electronic literature as a whole. Koh sums up her argument by saying that "humanities computing has focused on using computational tools to further humanities research, and not to study the effects of computation *as a humanities question*" (41). Electronic literature databases are in the fortunate position to be both digital and public humanities projects and as such, the field has the opportunity and the responsibility to scrutinize the academic and cultural objects that the databases are. This includes the self-reflexivity of scholars in electronic literature and Digital Humanities, but I look forward to seeing scholars across humanities and social science fields take on these public databases as their research subject.

Evaluating Databases

Addressing practices of reading and studying databases contributes to countering the idea that quantitative research is "supposedly constituted without human involvement" (Bode 22). As Bode argues, this is "a perspective that overlooks the fact that all collections are selections, made according to (implicit or explicit) arguments about value, and with varying degrees of expertise and funding" (22). Valuable contributions such as Safiya Umoja Noble's *Algorithms of Oppression* and Katy O'Neil's *Weapons of Math Destruction* address biases in the production of big datasets. These books deal with the nature and active and passive production processes of big data, looking at the content of these data sets. Naturally, a main reason that this critique is so urgent is the broad implications and audiences of these datasets. Their different containers, such as public databases, always shape datasets. I examine the nature of the database structure and the reception of this format. In this final section, I take the insight into reading and studying practices to a higher level by establishing an outline for the critical evaluation of databases.

As literature and theatre can generally count on specialist reviews to inform potential audiences, Geert Lovink envisions a similar genre of internet criticism, producing reviews in a qualitative manner rather than practical evaluations. He asks:

> How can we develop a rhetoric that follows the footsteps of literary and theater criticism, yet is tailored to the technological specificities of the internet and the twenty-first-century global condition? Will Net criticism generate a literary style of its own, similar to the review or essay with their connections to the rise of book culture in the eighteenth century? (63)

Addressing these questions requires insight into media specificity. For why would people be interested in writing and reading criticism? Coming back to the section of reading databases, the absence of internet criticism can be understood through the absence of linear progression in databases as compared to the bulk of literature and theatre. Database criticism specifically benefits from a comparison to other scholarly dissemination. When it comes to monographs, for example, one reason people read reviews is to see if they want to invest time in reading the book. Instead of starting at the beginning of a book or performance, reading the review can give potential readers insight into the quality of the work overall. Rather than a beginning, middle, and end, the "database is relational and nonhierarchical. It is a structure that persists while its content evolves and is displaced" (Daniel 150). Rather than offering an overview, the reviewer takes a snapshot by considering the database's elements. How is this different from an individual person trying out reading some elements on the database that interest them?

Additionally, we have to consider how one would review a necessarily unfinished project. Lovink asks: "How can we transcend the massive output of product reviews that mainly look at communication mishaps, factory mistakes, version incompatibilities, and delivery problems of the latest consumer goods?" (71). Lovink's question is especially salient in the close-knit community of electronic literature, in which databases are often connected to each other. Can we review databases without saying "please fix this", as we are able to do with reviews of monographs?

Database criticism takes into account at least these core vectors: data and scope, browsing experience, aesthetics, and representation of labor. Although interrelated, I choose to address them subsequently to explicate their role in the database.

Data and scope

Despite the gains from big data approaches, not all fields and research groups have the opportunity or desire to implement these methods in the same way. Critical Data Studies applies different strands of critical theory across stages of collection, analysis, storing, and dissemination when engaging with data. Jen Jack Gieseking notes that: "big data must be sized up through its mythos, measurements, and the pace of its accumulation" (2). Gieseking not only provides an alternative that makes doing data research more attainable, but also better as "new insights can be gained by accounting for multiple, nested, and imbricated scales of data" (3). How do we build this assertion into a database review?

Every public database has different objectives and means in making a database. Although seemingly natural and obvious, current reviews of data-driven research often fail to address this reality. In electronic literature databases, most data needs to be added manually because of the variety and particularities in the field. Many other fields have similar concerns. The dazzling status of "big data", then, is currently unattainable. Additionally, perpetuating bias in data collection and quantitative research is inevitable. Rather than seeing this as a failed attempt at big data or an excuse for sloppy data, database criticism can consider how the data is captured, which implications are made about the research potential of the data and how big of a discrepancy there is between those two. In other words, the objectives and means of a database need to be identified and the reviewer has to think along *with* them in reviewing the database. After all, "admitting the unknown, partial histories and knowledge is a difficult admittance for data studies but a crucial act" (Gieseking 6). By taking these elements into account, too rigid standards on the quality of the database can be avoided while still taking a critical stance on data collection and presentation.

Experience

The constructive approach to data has been discussed as a distinction between data as passive facts and capta as actively taken and positioned. Johanna Drucker argues that "no 'data' pre-exist their parameterization. *Data are capta*, taken not given, constructed as an interpretation of the phenomenal world, not inherent in it." (Drucker "Humanities" n.p.). The collection of all data, then, constructs an interpretation of the dataset as a whole. More generally, Susan Stewart argues that "it is not sufficient to say that the collection is organized according to time, space, or internal qualities of the objects themselves, for each of these parameters is divided in a dialectic of inside and outside, public and private, meaning and value exchange" (Stewart 154). She goes on to state that "while we can 'see' the entire collection, we cannot possibly 'see' each of its elements" (Stewart 155). This begs the question: what "entire collection" do we see when browsing a database?

We often discuss the user interface (UI) and user experience (UX), yet the experience of the user in browsing a database goes far beyond technical organization and navigation. This browsing experience constructs ideas about the data. It is impossible to read each individual record, but through contextual, distant, hyper and close reading, users perceive public databases as a whole. Although databases might not form a narrative in the traditional sense, they inevitable perpetuate ideologies or at least ontologies of the subject they document. This can have large consequences, especially when the database deals with sensitive subject matters. Jorge Felipe-Gonzalez, for example, has done vital work in discussing the production and data of various digital resources about Latin-American slave trade. This caution of perpetuating bias is not all-encompassing, browsing through a database also brings you the excitement of getting to work within an organizational structure that was previously unavailable. Intertwined is the sheer pleasure of going through a collection or database; getting the overview, selecting

relevant works for analysis, using filters to create mini-collections within a large dataset. A good database incites the pleasure of anticipation. Experience, then, should not be overlooked.

Parallel to literary and theatre criticism, database criticism has the opportunity to put emphasis on the experience of going through the database. Questions that need to be addressed here are: what "grand nonnarrative" comes across from browsing through the works? Which options does the user have to make selections of works? How does the database encourage or discourage the pleasure of anticipation? In this manner, in the evaluation of the database reflects the central influence that the browsing experience already has.

Aesthetics

Although aesthetics is nowadays often considered in terms of beauty, Alexander Gottlieb Baumgarten's conception of the field involved embodied experiences of all senses. Aesthetic choices, then, are not innocent or trivial, but rather draw on larger ideologies of abilities, styles, and experience of the intended audience. Dorothy Kim addresses the role of interface design in terms of visual pleasure, stating: "pleasure is central in organizing and producing the digital humanities. Visual pleasure, the pleasurable experience of the user/subject, and the ease of the project's interface are always central in building" (232). Engagement with aesthetics can be uncomfortable. It is appealing on a surface level to deny the importance of aesthetics in the database, arguing that the data 'speak for themselves'. Kim however posits that, "instead of hiding how visualization and visuality of the digital interface organize and interpret informational data, how exactly can we make room to highlight how visualization is an interpretative act?" (239). Regarding databases as cultural objects in aesthetic terms, does not deny the role of the database within academic environments; the aesthetic has always been part of academia.

Although open access is a buzzword, and rightfully so, we need to recognize that availability does not equal accessibility. Alana Kumbier and Julia Starkey argue in relation to libraries that we need to acknowledge and research the history and present of exclusory design and "in collaboration with people with disabilities, imagin[e] how things could be otherwise and working toward our shared, expanded notion of access" (488). For a database review to be inclusive, it needs to address matters such as how the page looks when zooming in on the text, how appealing it is to navigate based on screen readers, and how large hyperlinked buttons are. These are not elements that take away from the beauty, they are rather aesthetic choices at their core.

Database criticism provides the opportunity to address these often ignored but vital issues when it comes to databases. Questions that need to be addressed here, then, are fundamental: How does the database function in terms of pleasure, both visually and relating to other senses? What does the interface design presume about users' abilities, styles, and experience? How does the design take into account users with disabilities?

Labor

While literary criticism might still dabble in the idea of the sole literary genius and theatre criticism with the coordination of coherent production teams, databases comes to fruition within the 'network', a term which "has a specific ambiguity, as it at once talks about the social as well as the machinic" (Lovink 73). The danger here is that the network highly depends on the labor of many while at the same time this network becomes non-apparent in the final product. Digital labor, then, needs to be addressed, and there are various valuable contributions from different disciplines. Theorist and activist Tiziana Terranova rightfully asserts that "labor is not equivalent to employment" (45) when it comes to digital production. And even in employment, there is a discrepancy between labor and academic recognition. As Brundage, Gregory and Sherwood argue, we need to start "recognizing new and emerging forms of valuable labor in the university. This does not simply entail new forms of digital scholarship, but the very 'support' work that makes such scholarship possible" (307). In terms of database criticism, this leads to the following question: how do we review something that is the process and product of many individuals in a network? As the answer is, of course, by addressing head-on the presence and presentation of labor.

A focus on labor brings forth the core elements addressed above. It is in line with Kim's imperative to "make archival labor - usually hidden from view - clear and apparent" (251). In his discussion of big data, Gieseking points out that "proponents of the digital humanities work tirelessly toward the digitization of archives, almost always facing severe issues with funding and labor" (7). Rather than being impressed by automation processes or data size, a review should look closely at how labor is organized and how the acknowledgement and representation of this labor is part of the aesthetic and browsing experience. This includes the work of project teams, programmers, editorial boards, individual editors and contributors (and how they are chosen), and other actors. The explicit evaluation of labor, then, can be part of the improvement of the value placed on labor in developing and maintaining databases in academia.

The value of criticism is tied to the essence of the database. In developing a writing genre to evaluate public databases, we have the opportunity to combine elements generally regarded as essential to the database with elements that we wish to be part of the field. In my recommendations above, I argue that aesthetics, experience and representation of labor need to be addressed in addition to a focus on data as these elements all bear a mark on the functioning of the database and the value that is has for different audiences.

Concluding remarks

Building a database is a research activity that involves getting to know the documented subject intimately in terms of developing an ontological scope of what is documented, understanding the ideological context of production, and drilling down to the essentials of what elements need to be documented. Rather than a one-time publication, the database is an ongoing publication that requires many different people to maintain and

develop further throughout the existence of the database, often beyond the funding period of the initial project. Reading databases, especially if part of a research project, is shaped by the research and labor that people put into the database. At the same time, reading database also has the potential to have a shaping effect of the continuation of the database. After all, participation in the field involves reflection on what that field contains or should contain.

Yet all of these arguments are moot if current academic and funding institutions do not value all this work. Lovink's request to go beyond bug reports and version updates parallels the discussion in the academic field of electronic literature. Simply speaking: we know how important our databases are, but the publication of public databases falls outside the conventions and norms of academic publication. Robin Wharton makes the claim that "we need to acknowledge how new modes of open access and open source scholarship and publication may involve reconfiguring the means of academic production, and the relationship between author and producer, reader and consumer, text and commodity in ontologically significant ways" (392). Publicly available databases fit within the bounds of open source and open access scholarship in themselves, as they are publications of integral parts of the process and result of research (projects). It is in the interest of both the quality and the esteem of the databases to develop ways to study and evaluate them by considering the particular database structures that we engage with in the field of electronic literature. By considering the acts of database engagement, database criticism transcends the idea of databases as a preparatory task and allows for an emphasis on the textual, cultural, and aesthetic modes that determine the role of publicly available databases for a field. To achieve this mind shift, I need nothing less than to appeal to your better judgment of databases.

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