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Digital Humanities: An attempt to place itself in a new modernity

Dibyajyoti Ghosh

Jadavpur University, Kolkata, India

Abstract

Modernity is often reflected through pedagogy, which in turn is frequently shaped by capitalist forces. The nature of academic disciplines continues to change with time and notions of modernity. Inter-disciplinarity, or a shifting/ dissolution/ creation of disciplines reflect prevailing notions of modernity. It is in this background, that I plan to examine the rise of the digital humanities (henceforth referred to as DH), and the manner in which DH tries to place itself in a new form of modernity. Rather than looking at specific literary and cultural texts, I shall look at the nature of texts. The paper aims to show as to how DH has changed the way of thinking about texts and accessing texts. Rather than looking at a text as a linear narrative, DH opens up the possibility of visualising para-textual matter—matter not contained within the text itself but implied by it. In a way, DH also suggests a post-modern dissolution of the text itself—if the linear narrative is not more important than the para-textual matter, is the value of the text being undermined? This paper tries to conclude by connecting these implications of DH with the nature of how such suggestions of radicality justify the inclusion of DH as a marker of the ‘modern moment’ seeking to wilfully set itself against the past.

Modernity is often reflected through pedagogy, which in turn is frequently shaped by capitalist forces. The nature of academic disciplines continues to change with time and notions of modernity. It is in this background that I plan to examine how Digital Humanities (henceforth referred to as DH) tries to place itself in a new modernity. I shall divide my paper into three sections. The first section will be utilised in discussing the nature of academic funding for DH, the second in looking at how DH changes the notion of the text, and the final section in trying to analyse how DH interacts with the idea of modernity.

1. The nature of academic funding for DH

It is an obvious truism that academics is governed by funding. DH is primarily reliant upon soft funding, that is, temporary, non-long-term, highly competitive funding, as opposed to hard funding which governs permanent teaching positions in Indian colleges and universities. Given that in 2015, the skills needed to practice DH are not usually acquired by students at either the school level or even at the undergraduate level, DH is a post-graduate subject of academic study. In India, the only full-time DH course is the one run by the School of Cultural Texts and Records at Jadavpur University, Kolkata. That course is a post-post graduate diploma course. The course is funded by a one-time grant from the currently discontinued UGC-Teaching and Research in Interdisciplinary Innovative and

Emerging Areas scheme. Under the scheme, the course could only be a one-year post-post graduate diploma course. In other countries, DH is also taught at the Master's level.

Given the nature of soft funding for DH, DH projects tend to be short-term (that is, something which can produce demonstrable artefacts after a period of funding ranging from a few months to a maximum period of say 5 years). Also, given that DH projects are not very well-funded but at the same time require full-time professional service, DH practitioners tend to be either permanent teachers or post-postgraduates on an ad-hoc basis. The nature of soft funding for DH also ensures that DH is restricted most often to the nature of projects, something that is seen as a research activity, as opposed to a teaching activity, which as mentioned earlier, there is only one instance of it in India as of March 2015. Such research projects also have short-term goals, as a result of which once the period of funding ends, there is practically no scope to keep updating the project. The humanities research involved in most DH projects is a laborious task and has usually a longer period of validity as opposed to the technological aspects of DH projects. However, whenever the funds run out, the technological aspect of DH projects is no longer updated. Given the short-term validity of technology, most DH projects seem outdated technology-wise within say a period of 5 years since its completion. Thus, unless the data sets that underlie DH projects is made easily accessible to the public at large (such as the Folger Shakespeare XML-TEI texts), the data of most DH projects is not amenable to re-use.

This nature of research attributed to DH is often thought of as the reason why it alienates other humanities practitioners who are not keen of using DH methods. The fact that a large number of computer science graduates are also often leaders of DH projects and programmes makes DH an area where humanities graduates are often wary of treading. DH funding is also most often granted only to permanent teachers who are allowed to take on project staff. Thus, the nature of DH funding makes it a risk-laden career choice for the project staff. On the one hand, in India, such career experience is not considered for valid Academic Performance Indicator (API) scores, where digital output is not yet a valid form of research output. Moreover, collaborative research, involving much more than 5 or so research fellows, is not amenable to the division of API scores. On the other hand, DH 'seems' the practical long-shot risk in the face of dwindling academic funding for the humanities in general.

The question of whether DH is an attempt to re-fashion the humanities in order to make it seem relevant and palatable to funding agencies and education policy makers is a point of contention. DH as a term is the successor to the term computing in the humanities or if one were to narrow humanities just to literary and linguistic departments, then to literary and linguistic computing. This is borne out by the renaming of organisations such as the Association for Literary and Linguistic Computing, founded in 1973, to the European Association for Digital Humanities in 2011. Computing in the humanities can be traced even further back, to Roberto Busa's work on Thomas Aquinas in the late 1940s. Such quantitative research in the humanities can be traced even further back to 19th century academic scholarship in making lists, catalogues, concordances, etc, which as a non-university activity can be perhaps traced back to the earliest times of writing. On the other hand, 'close reading', a term which has given rise to, and in turn has gained new meaning with the discovery of 'distant reading' in the age of DH, can be traced back not only to the New Criticism of the 1940s but even to an earlier form of

reading prevalent for much of human history, and was specially important during the Protestant Reformation.

DH, even without the withdrawal of academic funding from humanities programmes worldwide, has a rich history behind it. However, with the added financial pressure on the humanities, DH is often touted as an escape-valve for the humanities to redeem itself and bolster its relevance. With the radicality of the digital era, DH seems a logical frontier for the humanities to seek and explore.

It can be argued that in a country like India, which has a low per capita GDP, a high Gini co-efficient and ranks high on the Multi-dimensional Poverty Index, DH is perhaps not the most pressing concern for government funding agencies in the humanities, primarily the UGC. Access to education, primary, and also tertiary are much more important concerns. However, it is impossible to ignore the employable skills that are emphasised upon by government policy makers repeatedly. In the face of it, and of the repeated emphasis on technology (given the huge proportion the IT service sector contributes to the Indian GDP) and even on the unskilled quality of humanities graduates, it is perhaps not too early for DH in India. It is perhaps also for DH practitioners in India to decide upon how best to take DH forward in India so as to make the humanities more relevant to contemporary Indian society.

2. DH changing the notion of texts

When it comes to texts, which are only one aspect of DH among others and only one aspect among others of humanities more broadly speaking, the results of DH can be broadly classified into two by-now well-known frames – ‘distant reading’ and ‘close reading’. I shall try to answer two questions in this paper.

- a. How has ‘distant reading’ through DH changed the notion of texts?
- b. How has ‘close reading’ been affected by DH?

Distant reading has undoubtedly changed the notion of the corpus, the canon and the genre. If you are aware of Early English Books Online (EEBO), the point is borne out. DH has also changed distant reading by its lists, databases and the ability to carry out searches on the level of a computer. For instance, the English Short Title Catalogue (ESTC) is a resource which has a very different form in its digital version as opposed to its pre-digital print version. The bibliographic table in the Bichitra Rabindranath variorum website offers much more information than any pre-digital print bibliography of Rabindranath could offer.

The computer’s ability to search, as exemplified by the EEBO-TCP search functions, or the Bichitra search functions offer a new dimension to scholarship. Ultimately, a text is what the reader makes of it. It takes a reader, such as say Stanley Fish on interpreting the variorum, to understand a text or the nature of texts in new ways. The potential that the digital text offers is perhaps best utilised by a reader who can use that potential to its fullest extent.

What kinds of new reading does distant reading offer? For instance, my ongoing PhD dissertation is titled ‘Books on Animals in Early Modern England’, and I look at texts from roughly 1575 to 1700. One of the first things that I noticed while reading for my PhD

was that animals weren't called 'animals' in early modern England. They were called 'beasts'. However, in the twentieth century when I was born and I picked up English, 'animals' was the term I was introduced to in order to understand non-human, moving, living creatures. 'Beasts' was a term used to denote strange creatures. So when did 'beasts' become 'animals'? Given the amount of reading that one has to undertake for a PhD in the humanities, by the time I had read a lot of early modern English texts, I could say that it happened sometime around 1650, just before the foundation of the Royal Society in 1660, and the term 'animals' was being used by the people who went on to be associated with the Royal Society later. With the help of the EEBO-TCP N-Gram Browser, I also found out that the word 'animal' started being used more frequently from roughly 1645 onwards and in about 50 years, that is by 1695, the word 'animal' was used more than the word 'beast'.¹ If one takes the plural form of the word, 'animals', then it probably increased in usage from roughly 1635 onwards, and continued to be used in parallel with the word 'beasts'. A combination of the analyses of usage of both the singular and plural forms of the words indicates that from roughly 1635-1645 onwards, the word 'animal' started being used increasingly in place of the word 'beast'. Post-1700, the word 'beast' started falling into disuse and was increasingly used to denote strange creatures instead of common animals, or it was used in religious texts which followed earlier religious terminology where the word 'beast' was used to denote 'animal'.²

Thus, it is not, as Luddites (and I shall return to my use of this term later on in this paper) fear, that this DH application does away with the need for actual close reading of texts. Rather, DH supplements close reading of texts in this example. In the examples of bibliographies such as the ESTC or the Bichitra bibliography, DH suggests texts which one can subject to close reading.

When it comes to close reading, how has DH changed the notion of reading? For instance, a DH representation of *Hamlet* can look like this—
<http://www.thomaswilhelm.eu/shakespeare/output/hamlet.html>

The representation is primarily based on the XML-TEI texts of Shakespeare created by the Folger Shakespeare library, with its detailed annotations highlighting speakers, acts, scenes, etc. Thus, one can visualise the number of words and lines spoken

¹ Data from the EEBO-TCP N-Gram Browser, developed by Anupam Basu and others at the Washington University in St. Louis,
http://earlyprint.wustl.edu/tooleebospellingbrowser.html?queryTerms=animal%2Cbeast&spellings=original_spellings&smoothing=False&rollingAverage=none&adjustDomain=False and
http://earlyprint.wustl.edu/tooleebospellingbrowser.html?queryTerms=animals%2Cbeasts&spellings=original_spellings&smoothing=False&rollingAverage=none&adjustDomain=False

² According to Google books Ngram viewer,
https://books.google.com/ngrams/graph?content=beast%2Canimal%2C+beasts%2C+animals&case_insensitive=on&year_start=1700&year_end=2000&corpus=15&smoothing=0&share=&direct_url=t4%3B%2Cbeast%3B%2Cco%3B%2Cso%3B%3Bbeast%3B%2Cco%3B%3Bbeast%3B%2Cco%3B.t4%3B%2Canimal%3B%2Cco%3B%2Cso%3B%3Banimal%3B%2Cco%3B%3Banimal%3B%2Cco%3B.t4%3B%2Cbeasts%3B%2Cco%3B%2Cso%3B%3Bbeasts%3B%2Cco%3B%3Bbeasts%3B%2Cco%3B.t4%3B%2Canimals%3B%2Cco%3B%2Cso%3B%3Banimals%3B%2Cco%3B%3Banimals%3B%2Cco. This data (though the corpus for generating this data is much less than the EEBO-TCP corpus for older books, and is thus less reliable for books published before the 20th century) shows only two periods (1807-1808, and 1813-1814) post-1700, when there is a relative increase in the use of the word 'beast/s' as compared to the use of the word 'animal/s'. This increase is largely due to religious books published in those two periods, which used the word 'beast/s' following the terminology used to refer to animals in religious books published in the sixteenth and seventeenth centuries.

by a character, and develop communication networks among the characters, based on the shared scenes and the number of lines spoken by the characters. As a Stanford Literary Lab (the name of the organisation—‘Literary Lab’ is a fair indicator of the kind of work it does, and there are those who advocate such work and those who do not) pamphlet in May 2011— <http://litlab.stanford.edu/LiteraryLabPamphlet2.pdf> pointed out, there are certain critical issues which are involved with such visualisations. Yet, as the authors of that pamphlet pointed out regarding the character of Horatio, it takes a certain way of reading to discover certain features about a text. Just as Stanley Fish suggested a new way of interpreting the variorum, it takes a different mindset of accessing digital texts in order to interpret the potential it has.

Similarly, a text of Rabindranath’s *Raktakarabi* can look like this— http://bichitra.jdvu.ac.in/content/collation/bangla/drama/linefeed_parser/b_d_rak_001/index.php.

Thus, both distant reading and close reading highlight several para-textual features of the text and texts in general, which a reader is unlikely to observe through a conventional reading of texts or a linear reading of a single text.

A more radical way of interpreting such visualisations is to think of the visualisations itself as the text, and also the message, if one were to take Marshall McLuhan’s 1960s proposition of *Understanding Media*. Yet, as the authors of the Stanford Literary Lab pamphlet point out, such visualisations in a way undermine the text itself. I add here, that if the para-textual matter is as important as the linear narrative of the text itself, does it suggest a kind of dissolution of the notion of the text? The post-modern dissolution of the notion of the text suggested by FW Bateson in the early 1970s is reinforced by the DH emphasis on para-textual matter and on diverting attention to features of the text other than its linear narrative.

The answer is suggested by DH practitioners themselves when they suggest that DH methods and tools are only to be used as a supplement to well-established practices of close-reading. DH distant reading makes available to the reader more texts for close reading than what one would have otherwise thought. One is better informed of the choices one makes when one subjects one text to close reading instead of another one. One is more aware of the quantities of texts. Similarly, when it comes to close reading, DH methods and tools bring out another aspect of an individual text which is so close that it is beyond normal human abilities. Thus, DH distant and close reading, at a great macro and micro level, expand the frontiers of both individual texts as well as the notion of texts.

It has often been argued that whereas the social sciences tend to think of types, the humanities often focus on individuals. Those who are not too fond of DH distant reading, argue that, with DH distant reading, the humanities tend to resemble the social sciences with every individual with its history and emotions, reduced to a faceless type, another brick in the wall, albeit with its own little network-relationship quirks. The answer to this is also probably the same as the previous answer, that DH distant reading is only to be used as a supplement, not as a replacement, to well-established practices of close-reading.

One can argue that a synecdochical method of accessing material manifestations of the past is the most widely used form of accessing material resources. Distant reading,

despite its ability to broaden one's scope, does little to do away with this form of exclusion through synecdoche, as one ultimately ends up subjecting to close reading only certain resources and not all resources. However, what DH manages to do is to change the notions of synecdochical representation. It can be argued again however, that the material resources which are the subjects of DH study, are synecdoches themselves of the past, of what gets digitised, what gets archived, what gets published, what gets recorded and so on. Out of all that human beings think/ feel and do, very few of such activities are written down. Out of all that human beings write down, very little is published. The sampling continues. Not all published material make it to some bibliographical list. Very few of even those items are archived for long-term future use. Digitisation of non-born-digital material is also a rare event. Very few material artifacts are digitised. Thus, there is a constant sampling or creating representatives of what to select.

This diminishing selection is obviously closely related with power. Not many people have the power/ capacity to write. Illiteracy and leisure are two major constraints. Publication is an exercise in appeasing the powers and the moneyed. Bibliographical lists are based on a sense of elitism. Lists are only made of elite collections and publishers. The rest are termed 'ephemera' or temporary material artifacts. Archiving is again a matter of taste. Digitisation again brings in an element of elitism when only certain collections are considered important or elite enough to be widely representative of archives.

Thus archiving and digitisation are activities in synecdochal expressions of power. However, DH manages to create changes at the smallest level—that is, at the level of digitisation. It is beyond the scope of DH to change the synecdochical representation of resources at any level beyond the smallest level of digitisation. But at that level, it manages to change the notion of the 'canon'.

3. DH and modernity

I used the word Luddites in the previous section not without some hesitation. There are very good reasons to be a stereotypical Luddite. The nature of literature departments for instance and their future, an example of which is seen in JM Coetzee's *Disgrace*, continue to pose a fear for those in the profession. It is in this background that DH practitioners proclaim the radicality of DH (as indeed I have done in this paper). Among most DH essays is a notion of radicality, a kind of wilful break-away from the past and a kind of self-fashioning.

The digital age is perhaps the marker of the present 'modern' era. The humanities too feature in this digital age. While ebooks outsold print books on Amazon sometime in 2011³, and print books outsold ebooks in the USA in the first half of 2014⁴, the underlying message is that ebooks are a significant method of accessing texts. With the increasing amount of time one spends in reading electronic texts, be it news sites, blogs and microblogs, encyclopaediae, websites or crowd-sourced texts on social networks, the

³ <http://phx.corporate-ir.net/phoenix.zhtml?c=176060&p=irol-newsArticle&ID=1565581>

⁴ <http://www.publishersweekly.com/pw/by-topic/industry-news/bookselling/article/64170-e-books-remain-third.html>

nature of understanding the notion of a text changes. The humanities, and study of literature too changes with this change in the notion of texts. Even when it comes to tertiary education and literature departments or humanities departments more broadly, the notion of the text is undoubtedly affected by the change in the way of accessing texts by accessing them in a digital format. Multimedia texts, or data visualisations also change this notion.

In Europe, Australia and North America, where DH is more of an academic concern than it is in India, the flourishing of DH doctoral and postdoctoral funds is in keeping with the reduction of permanent teaching positions in the humanities. One is seen as more of a career path that one may choose to walk up than the other. With all ages of modernity re-adjusting academic disciplines in keeping with its capitalist forces, the suggestions do not seem too difficult to grasp. India's economic situation bodes well with the humanities as a tertiary field of study, as the humanities are easier to economically sustain than either the sciences or more vocational courses requiring more substantial physical infrastructural funding. On the one hand, India's policy makers emphasise on the need for science and technology. On the other hand, the humanities are given a free rein as that is what the budgets allow. In India, as in Europe, Australia and North America, DH is a risky career choice. The future of DH seems more stable outside India, as of March 2015, yet the forces of capitalism reign globally.

Those aspects of the study of humanities which are not amenable to DH methods, or even those languages and cultures which are less affected by digital methods, such as Indic languages, are likely to be labelled pre-modern. For instance, the Bengali book publishing industry, which has not yet made much of a move in the electronic textual realm (owing to several factors such as lack of OCR-enabled corpuses, and disinclination of major market players such as Amazon to allow non-Latin scripts onto their Kindle ebook store) is frequently labelled as being stuck in the old world. Letterpress printing, largely obsolete in economies such as North America and Europe, are a fact of existence in Bengal. It is often cheaper to print small cards in Bengali script from a letterpress in Kolkata than to type it into a computer and take print-outs for someone without a personal computer. The forces of capitalism force some observers to term such cultures as pre-modern based on the fact that some aspects of it may not have embraced a digital transformation. This is what leads to a kind of fractious modernity in cultures such as India. The high Gini co-efficient is an indicator of these multiple cultures.

Trying to be a Luddite is perhaps a way to acknowledge the existence of this fractious modernity and the discontent that such a modernity encompasses.

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Dibyajyoti Ghosh is a student in the Department of English, Jadavpur University where he is working on his PhD thesis titled 'Books on Animals in Early Modern England'. He is also interested in textual studies and digital humanities, and worked full-time for four years on matters textual and digital.
