Should we write about history, or about doing history?

Analysing the role of methodology in digital history and Swedish intellectual history

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Abstract

This article explores diverging ways of accounting for methodological questions in the history writing of digital history on one hand, and Swedish intellectual history (*idé- och lärdomshistoria*) on the other. By highlighting differences in how the two fields treat these central historiographical issues, I aim better to understand some of the difficulties of conducting and publishing research in Swedish intellectual history, based on digital-history methods.

The study is separated into two sections: first, I make a qualitative analysis of texts containing reflexive discussions on method, produced during the early discipline-forming phases of each field. Then, I do a distant reading of peer-reviewed articles in *Lychnos* published 2005–2020, as well as of a recent edited volume in digital history. This analysis provides an overview of recent discussions on method in these two fields, while it at the same time serves as an example of how such methods shape the way we write history.

Keywords: history writing, method, digital history, history of science and ideas, distant reading, collocation analysis

Introduction

Historians of scientific authorship have long underlined how publications are formed by conventions and genres, which in turn are intimately intertwined with "the discursive regimes" in which diverse disciplines operate.[1] Historical disciplines and fields are hardly an exception. Choices of style and several other genre conventions are part of the literary boundary-work

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Lychnos 2022, DOI:10.48202/24042

(using Thomas Gieryn's term) that shapes expectations of diverse scholarly communities.[2] One such key difference, which varies between different historiographical traditions – and perhaps most clearly between qualitative and quantitative fields – is whether to place one's own research process or a historical narrative centre stage. In this article, I compare the role of explicit methodological discussions, and discussions of research process, in the two historical fields addressed by this themes issue. The Swedish historical discipline of *idé- och lärdomshistoria* (roughly "history of ideas and learning", or simply intellectual history, which is the English term I will use in the following), has at least traditionally eschewed explicit methodological discussions in publications in favour of more suggestive historical narratives.[3] The emerging field of digital history, on the other hand, has at times been criticised for focusing too much on method to the detriment of historical narrative and scholarly argumentation.[4] In the light of what seem to be two different ways of relating to method in history writing, it might be relevant to reflect more closely on how historical narratives and reflexive analyses of historians' own research processes are treated differently in publications of these fields.

In digital humanities and computer science, scholarly publications and the distribution of relevant keywords in their texts have been used to study boundaries of diverse research fields.[5] While this article has a similar approach, it however differs from many of these studies in that it embraces a mix of qualitative reading and digital methodology. Furthermore, I do not wish to delineate the fields through qualitative analysis, but instead to understand different dynamics between writing historical narratives and reflexive discussions of method.

This article is separated into two sections: first, I carry out a qualitative close reading of texts that contain reflexive discussions on the role of method, written at times when scholars in each field seem to have wished to delineate their discipline through discussions of methodology. These texts consist of publications written by intellectual historians from the mid-twentieth century, and corresponding texts by early twenty-first-century digital historians. Through these publications, I examine different ways of relating to method and history writing. How do these texts discuss the role of method in their field, and how do they relate method to genres and styles of history writing? This initial qualitative approach does not aspire to any generalisable conclusions about the historical development of research fields. Instead, I hope to outline some particularities of how authors in these two specific fields have related literary style to methodological questions. This outline will then serve as a context and a point of comparison for the discussions in the second part of this article. In this latter section, I carry out a distant reading of peer-reviewed articles in

Lychnos published 2005–2020, as well as of articles from the volume *Digital histories. Emergent approaches within the new digital history* (2020). Distant reading is an umbrella term for several more-or-less advanced statistical methods for analysing text, often with the aid of digital technology, with the aim to get a holistic view of the textual composition of large text sources.[6] Using this approach, I examine how these texts discuss method, and hence what role methodological discussions have in each field. How can we use digital methods to compare genres of history writing? Also, do digital methods shape the way historians write history? By highlighting some fundamental differences in how authors in the two fields treat these central historiographical issues, I aim better to understand some of the difficulties of carrying out and publishing digital studies of intellectual history, which need to relate to both these fields at once.

Methodology and history writing in twentieth-century Swedish intellectual history

Attempting to make clear-cut analytical definitions of these two historically contingent research fields is bound to fail. Still, in each field we can find discussions of disciplinary identity that are as old as the fields themselves. What disciplinary boundary-work was carried out by early proponents of the fields – i.e., twentieth-century intellectual historians, and early twenty-first century digital historians – and might their texts give historical context to the role of methodology in the history writing of each field today?

Swedish intellectual history has existed as a distinct subject for education and research at numerous universities since the 1930s. At that time, from an international perspective, the fledgling discipline could be seen as a combination of on the one hand the newly established field of history of science, championed by, e.g., George Sarton, and on the other of the contemporary history of ideas of Arthur Lovejoy and Wilhelm Dilthey's hermeneutics.[7] Since 1936, *Lychnos* functioned as a key annual academic journal for Swedish intellectual history, and as an important national publication channel. The very same year, Johan Nordström argued for the need of a history of science that "studies scientific life in its connections to the human history in its totality."[8] Interestingly, the boundary-work performed by early promoters of intellectual history in Sweden did not only concern the creating of disciplinary delimitations, but just as much involved a form of negative boundary-work consisting of connecting with other forms of historical scholarship. For example, in 1957, when asking himself what history of science [*lärdomshistoria*] actually was, Nordström's disciple Sten Lindroth underlined how "Every

delimitation between different historical disciplines is something ephemeral and extraneous." Still, he continued, if nothing but for practical reasons, historians needed to sort themselves under a specific discipline.[9]

From its onset, similarly to Sarton's international ambitions, an important aim of several intellectual historians was the historical analysis of a wide range of scholarly forms of knowledge, including philosophy, natural sciences, and mathematics. In a large debate in Swedish newspapers in 1967, concerning the role of intellectual history, several writers identified the discipline's intermediary position, and ambitions to understand other knowledge forms from a historical perspective, not only as a defining feature but also as a problem. Especially: how were historians, without expertise in philosophy and natural sciences, to examine and understand the historical developments of these forms of knowledge, which arguably belonged to a very different culture of knowledge?[10] Some proposed that the study of twentieth-century science required an interdisciplinary competence, which combined knowledge of the studied knowledges as well as of historical methodology. The need for interdisciplinarity competence, seen as necessary by some scholars of the field, thus emerged out the field's objects of study and the perceived difficulty of understanding the subtleties of their historic developments.

At the same time, following Nordström, twentieth-century intellectual historians embraced a methodology grounded in a qualitative historical tradition. In line with Dilthey's hermeneutics, they repeatedly identified understanding and imagination as key methodological tools. For example, Nordström's contemporary Gunnar Aspelin proposed in 1937 that the primary method of the discipline was "to imagine and understand the historically given way of looking at things."[11] Two decades later, Sten Lindroth likewise argued that it was through understanding [*förståelsen*], and imagination [*inlevelsen*] that intellectual historians could interpret not only scholarly historical documents, but also sources that could be seen as "religious, literary, and artistic".[12] In 1978, Bo Lindberg and Ingemar Nilsson echoed this statement, describing how "the most important element in what could be called Nordström's method, is the aspiration for imagination and historical understanding."[13] In a *Lychnos* article from 1983, Gunnar Eriksson, responded to objections to this Nordström tradition, and especially rising criticism of its lack of explicit methodological discussion. According to Eriksson, for "Lindroth, already the word 'method' could cause aversion", and "method was something one talked about when you did not have anything to research." However, Eriksson continued, a lack of explicit methodological discussions was not the same as a lack or methodological or theoretical awareness. In Eriksson's view, the choice of *style* among twentieth-century intellectual histo-

rians was a consciously maintained contrast to the natural sciences.[14] Instead of:

> preferring numbers to words, formula to long sentences and a highly developed and strict terminology, the Nordströmians have written in the literary style of the humanist tradition, where the language comes across as overflowingly rich, suggestive, and loaded with qualities, maybe not without its ambiguity or at least with a rich pattern of sentences and expressions on diverse scales.[15]

Despite the field's debate about method of the 1980s, writing as recently as in the 1990s, Nils Andersson and Henrik Björck argued that the methodology of the field had displayed a relative continuity, and that this method, though phrasing had varied over time, in various ways had centred on "placing things 'in their context'."[16]

Since the 1990s, Swedish intellectual history has seen rapid methodological developments, and has been quick to adopt approaches from for example new cultural history, science studies, and a number of other fields centred around new methodological and theoretical perspectives. Meanwhile, following a broader international trend as seen for example in the history of science, focus has been moved from long diachronic surveys, to more narrow microhistories.[17] At the same time, these microhistories have generally incorporated broader theoretical ambitions, giving them an analytical scope that older diachronic histories often lacked. As pointed out in the collection of essays published in the early 2000s, the field was no longer more or less defined by the Nordström tradition.[18] How these more recent developments have changed the discipline's way of writing about methodological questions, will be discussed further towards the end of this article.

Method and writing in emerging digital history

In comparison with intellectual historians, digital history is a relatively young field. In an international context, the field has existed for a little over two decades, and the establishment of the Virginia Center for Digital History in 1997–98 has been identified as an important starting point.[19] While scholars of digital history have been obsessed with the novelty and future potential of their methods, as seen from recent titles of books and papers that highlight the field's emerging status, this trope of newness has also been criticized by authors who have pointed to historians' use of computers for quantitative statistical analysis as far back as the 1960s.[20] Still, it is evident that digital history gradually has gained more of an institutional frame during the early twenty-first century, and that propo-

nents of digital analysis imagine much broader uses of statistical methods than how they have traditionally been used by quantitative historians. Instead, drawing together historians inspired by methods embraced by a larger community of digital humanists, the field has experimented with methods to visualise history, as well as to analyse, e.g., large texts, and historical recordings of audio and video. Often, digital historians have also rallied around a wish to return to a new *longue durée*, based on analysis of big data, often in clear opposition to microhistory that has been perceived as having lacked a broader relevance.[21] In Sweden, during the last decade we also see a development of annual digital-history conferences, courses at master's level at several universities, several announced positions, and even a newly established environment for digital history at Lund University. Still, compared to Swedish intellectual history, the institutional boundaries of digital history are still somewhat unclear. Swedish digital history has for example no publication channel, neither analogue nor digital, equivalent to *Lychnos*.

Like among early proponents of Swedish intellectual history, we find a form of negative boundary-work among proponents of digital history. For example, in 2013 Gerben Zaagsma argued that it would be problematic to view digital history "as a field in its own right or a specific sub-discipline". Such a view "feed[s] into the myth that historical practice in general can be uncoupled from technological, and thus methodological, developments and that going digital is a choice".[22] Instead, he proposed that "digital history is a transitional term that exists for a reason: it has helped to emphasise and put into focus new practices [...]; and it highlights how data and tools are changing historical knowledge production."[23]

Another similarity between the early disciplinary in Swedish intellectual history, and more recent examples from digital history is the way both fields are described as being defined by their interdisciplinary, or intermediary, positions. While these discussions of interdisciplinarity might be similar at surface level, digital history is however imagined as interdisciplinary in a radically different way from how early proponents of Swedish intellectual history framed their field. Whereas intellectual historians, as discussed previously, considered themselves to be interdisciplinary by merit of their objects of study, the objects of study of many digital-history projects align with traditional historical disciplines, such as political history, media history, or social history.[24] To a major degree digital history has focused on textual historical sources, which has also drawn criticism from scholars in, e.g., visual or material history. Moreover, while references can be found to studies of the history of computing, for examples in introductions drawing up the history of the field, digital history is generally not a history of the digital.[25]

Digital history is thus not defined as digital by virtue of its object of study. Instead, digital historians' conception of their field as interdisciplinary primarily revolves around questions of methodology, and especially the way the field aims to integrate methods from computer science into historical research practice. It has thus been argued that digital-history projects require several different forms of skills: of asking the right historical questions, of building datasets, and of data processing. Moreover, authors in the field underline how digital history increasingly is carried out in collaboration between historians and diverse computational experts, and how the field can be seen as a trading zone between historical disciplines and computer science.[26] In these discussions, interdisciplinarity is framed as methodological intermediation and authors in the field thus discuss the strategies for drawing together and integrating diverging knowledge traditions. For example, in a recent survey of the state of the field, digital history has been characterised as "a community of practice of researchers from different backgrounds who look across institutional and disciplinary boundaries to engage in historical practices with the methodological and epistemological concepts of other disciplines."[27]

Consequently, recent works of digital history often discuss the limits of historical expertise. Can historians be expected to learn how to program? How would the integration of such skills into historical research practice change historical research, and historians' professional identity?[28] Moreover, in stark contrast to the aversions to explicit methodological discussions shown by some twentieth-century Swedish intellectual historians, digital historians have wished to challenge what they have seen as a culture of methodological secrecy. As argued by Kristen Nowrotzki and Jack Dougherty, "historians rarely reveal the underlying processes that led to [their] finished products".[29] Many digital historians have instead put these methodological processes in the limelight, sometimes, according to critics, to the detriment of scholarly argumentation and the presentation of novel conclusions.[30]

These reflexive texts from Swedish intellectual history and digital history thus hint at two very different approaches to writing about method. Especially, the way the fields relate "numbers to words, formula to long sentences and a highly developed and strict terminology" (to paraphrase the previous quote from Eriksson) are diametrically different. While the early proponents of Swedish intellectual history conceived a genre of history writing where methodological questions were an invisible foundation, subtly underlying a narrative style marked by free flowing and suggestive narratives, digital historians instead seem to put methodological discussions centre stage, and their style can thus perhaps best be sum-

marised by the title of an article by Andrew Piper on the topic of digital cultural analytics: "There will be numbers."[31]

Digital genre analysis of methodological discussions

In the case of digital history, we might expect some degree of correspondence between the relatively recent field-defining texts, and research publications of late. On the other hand, the similar texts by intellectual historians discussed above are generally decades old, and might say more about twentieth-century Swedish intellectual history than the contents of recent publications. Today, few researchers in Swedish intellectual history would explicitly argue that they are writing history in the Nordström tradition, and a quick glance through recent doctoral dissertations of the discipline makes it obvious that explicit methodological and theoretical considerations have taken a more prominent place during the last decades. Thus, even if we can see clear differences between reflexive discussions of the two fields when comparing field-establishing texts, do these diverging discussions actually come to expression in recent publications? In this section, I explore this question through a digital analysis of texts from both digital history and Swedish intellectual history, partly to form a more nuanced understanding of the way methodological issues are discussed in the two fields, but perhaps even more importantly to explore how digital methods might be employed and integrated into intellectual history.

This part of my analysis has several intertwined aims: First, it serves as an example of how digital text analysis might be used to analyse smaller sets of sources than is generally studied in digital humanities, and how such approaches thus can complement qualitative readings. Second, by carrying out such a digital analysis, I aim to highlight methodological contrasts that make it difficult to publish papers that speak to the two fields simultaneously. Digital history has been criticised for being too centred around method, to the detriment of scholarly argumentation. Still, if these details were to be neglected, more general audiences would have difficulties following and evaluating the arguments that are made. It thus raises a reflexive question: when conducting a distant reading of these two fields using digital methods, how can I relate the need to present methodological details – including tables, statistics, and numbers – to stylistic conventions in Swedish intellectual history where such elements generally are toned down in favour of historical narrative and theoretical arguments?

Already here, my methods compel me to digress from a more traditional argumentation-based approach, to instead discuss the basis of my research process. To compare the genres of the two fields, I compiled two corpora (i.e., large curated collections of sources). The first consists of all

peer-reviewed research articles published in *Lychnos* between 2005–2020 (that is, not the reviews or dissertation reviews), accessed through the journal's website. The second consists of the eighteen chapters of the newly published collection *Digital histories. Emergent approaches in the new digital history* (2020).[32]

Naturally, the conclusions drawn from this analysis do not describe the fields' relation to method as a whole. What we can see from this digital analysis is the expression of a style found in the convergence of a particular type of text (articles/chapters), from specific fields (Swedish intellectual history/digital history), and in a specific editorial context (the journal *Lychnos*/a published collection). Were we instead, for example, to analyse the mentions of "metod/method" in doctoral dissertations or student essays from Swedish intellectual history, we would probably find a more pronounced methodological discussion. Moreover, through this approach we can only draw conclusions about how the fields *write* about method in final published texts, not about the role of method in the preceding work processes. The digital analysis carried out here should thus not be seen as a systematic study of the fields as a whole. Still, I would argue that the ways authors write about method in edited and/or peer-reviewed texts indicate the role explicit discussions of such questions have in each field. By exploring these sources using digital methods, we might thus get another perspective on how methodology relates to broader genre conventions and stylistic expectations found in the fields.

After having removed "stop words" from each corpus – e.g., pronouns and prepositions, which are common in all language but give little insight into the specificity of a particular text, I subjected them to a series of digital analyses. First, I did a word frequency analysis, finding the most common words in each text: for example, in *Lychnos* the Swedish words "historia" (history), "tid" (time), "forskning" (research), and "modern" (modern) were the four most common words, whereas the most common in the second corpus were "digital", "history", "research", and "data". While counting words in this way may show some similarities and differences, it is hardly a method that gives any deeper or informative insights into how methodological issues are discussed in the two fields.

If we are interested in how methodological issues are treated differently in the two corpora, we need a more fine-tuned approach. One way is to compare the frequencies of a specific set of words: theory [*teori*], understand [*förstå*], interpretation [*tolkning*], understanding [*förståelse*], method [*metod*], source [*källa*], discourse [*diskurs*]. Such an analysis however needs to be adapted to differences between the collections of texts: First, *Lychnos* contains both English and Swedish articles, so we need to group together frequencies of words in both languages to get comparable

figures. Second, Swedish contains more forms of words than English (e.g, in Swedish definiteness is marked morphologically, instead of through a determiner). To make the numbers comparable and meaningful, I thus substitute the lemma of each word in English for all diverse forms in both Swedish and English. So, for example, the word "theory" actually represents an array of words: ["teori", "teorin", "teorier", "teorierna", "teoretisk", "teoretiska", "theory", "theories", "theoretical"]. Third, the two corpora are of radically different sizes (the combined volumes of *Lychnos* comprise of c. 870.000 words excluding stop words, and the single book *Digital histories* only of c. 80.000). To get comparable numbers, we thus need to relate the frequency of each word to the total number of words in each corpus (see figure 1 and 2).

At a glance, we see that the ranking of these words is quite different in each text. Whereas the texts in *Lychnos* most commonly use the words "theory", and "understanding", the texts in *Digital histories* instead use the words "method", and "source". One might thus say that *Lychnos* contains a more theoretical and hermeneutical field of history, and the second a more distinctly empirical. However, if we take a look at the relative frequencies, we are forced slightly to revise such a conclusion. In terms of relative frequency, almost all these words are more recurrent, or at least as common, in *Digital histories* as compared to *Lychnos*. Only "theory" has a clearly higher relative frequency in *Lychnos*. These numbers thus seem to corroborate the previous findings, from reading discipline-forming texts, of a digital history where explicit methodological discussions – about sources and datasets as well as of theory and discourses – are central, and Swedish intellectual history as a field where discussions are toned down in preference of narratives of historical case studies, and more theoretical analyses.

While an analysis of the frequencies of relevant words provides a better overview of the words used in each field, it is still a fairly blunt tool. Especially, it tells us little about the differences in how each word are used in the two fields. Can we really stipulate that "method", "theory", or "source" mean the same thing in digital history as in Swedish intellectual history? Might it not also be the case that the meanings of the words vary between the fields in ways that simple frequencies cannot reveal? In a qualitative reading of texts, such questions would be a natural point of departure when trying to understand historical discourse in its context, as well as when exploring broader concepts rather than single words. By counting relevant words, we thus still only seem to scratch the surface of the potential differences in genres, and the conclusions so far might thus come across as somewhat superficial in comparison to qualitative readings.

Digital humanists of the last decades have however proposed a range of more advanced, and presumably more powerful, methods for text analysis.

	Frequency	*Re. Freq.*
Teori/theory	1661	0,19%
Förståelse /understanding	907	0,10%
Metod / method	717	0,08%
Praktik / practice	638	0,07%
Tolka / interpret	634	0,07%
Källa / source	436	0,05%
Diskurs / discourse	103	0,01%

Fig. 1. Word frequencies of relevant words in *Lychnos* 2005–2020

	Frequency	*Re. Freq.*
Method	381	0,48%
Source	340	0,42%
Discourse	151	0,19%
Practice	137	0,17%
Understand	107	0,13%
Theory	81	0,10%
Interpret	67	0,08%

Fig. 2. Word frequencies of relevant words in Digital histories

For example, topic modelling has been proposed as being better than simple keyword searches when exploring objects of concern in large collections of textual sources. Moreover, dynamic topic modelling has been used to explore historic change in large corpora.[33] Here, I will however employ another digital method: collocation analysis. This method is a way of exploring the textual context of a specific word, by analysing the other words that frequently appear in its proximity. In many ways, collocation analysis is a simpler and more transparent technique than for example topic modelling. And while there is a wealth of digital tools for automatic collocation analysis, it is even a method that can be carried our manually.[34] In many ways I consider its simplicity to be one of its greatest strengths, especially since it allows for a better integration with a parallel qualitative reading, which thus makes it ideal for the approach of this article.

In its most simple form, we could use collocation analysis to examine which words are most frequently mentioned right next to each other. Such an analysis would however give us a very narrow insight into the context of a word. By widening the scope of words included in the analysis, we

can get a better understanding of other words that are commonly mentioned in the same sections as, e.g., "metod/method". In the following, I will explore discussions about method using a collocation analysis that employs a window of ten words before and after our search terms (again, the relevant words have been lemmatised before the analysis, and each entry in the tables thus represents a cluster of English and Swedish words).

Let us thus take a look at figure 3 and 4, which contain the results from collocation analyses of the word clusters "metod/method" in *Lychnos* 2005–2020, and the volume of *Digital histories*.[35] Apart from the unsurprising result that both fields often discuss historical methods, if we look at the ten most common collocations of the words "metod/method" within the two corpora, we see some distinctive differences. In *Lychnos*, "method" is most commonly collocated with various forms of the word "theory". In *Digital histories*, "theory" is the seventeenth most common collocation of method, and does thus not make it into the table of the ten most common collocations. The collocated words in *Lychnos* also underline an important aspect of Swedish intellectual history as a field studying historical epistemologies: many of the collocated words, such as philosophy, Marx, and science, indicate that authors discuss the methods of historical modes of enquiry rather than the methodological approach of their own studies. Again, this underscores the point made above that the field is interdisciplinary by merit of its objects of study, rather than because of its own historiographical methods. In comparison, the collocations in *Digital history* indicate a much more hands-on approach to writing about methodology. That the texts often discuss digital methods is perhaps to be expected from a volume focusing on emerging approaches in digital history. Nevertheless, it highlights the point above: that digital history is an interdisciplinary field because of how it mediates the "use" of "digital", "computational", and "quantitative" methods to historical studies, and historians.

Similarly to the frequency distributions of relevant words discussed previously, there is more to discern from the collocations than merely a list of words that are mentioned. Let us thus turn to the relative frequencies of the collocations (i.e., how often each collocation is mentioned out of all occurrences of "metod/method" in each corpus). When comparing figure 3 and 4, we see that the relative frequencies of the most common collocations are radically higher in *Digital histories*. These higher relative frequencies indicate that methodological issues are discussed in a more homogeneous context. They thus again accentuate how a particular form of very concrete methodological discussions is a defining feature of these digital-history texts. In comparison, *Lychnos* does not seem to contain the same kind of explicit and coherent methodological discussions. Instead,

	Freq.	*Rel. Freq.*
theory	71	10%
Historic	51	7%
philosophy	35	5%
truth	32	4%
Marx	29	4%
develop	23	3%
dialectic	21	3%
science	18	3%
research	16	2%
comparative	16	2%

Fig. 3. Most common collocated words (window of ten words before and after the term) of "metod/method" in *Lychnos*.

	Freq.	*Rel. Freq.*
Historic	142	37%
digital	98	26%
use	96	25%
historian	47	12%
research	38	10%
analysis	37	10%
source	35	9%
computational	30	8%
quantitative	28	7%
new	24	6%

Fig. 4. Most common collocated words (window of ten words before and after the term) of "metod/method" in *Digital Histories*.

a relatively heterogenous set of more infrequently used words populate the methodological word windows.

Collocation analysis thus provides an overview of the style in sections discussing method in the two texts. Perhaps somewhat surprisingly, despite how more recent members of the field have pointed out a fundamental methodological change in Swedish intellectual history during the last decades, the recent articles of *Lychnos* correspond rather well to stylistic ideals expressed by mid-twentieth-century champions of the field. That is, methodological analyses are not very common, and when method is treated, these sections primarily discuss the methodologies of historical knowledge forms. However, we also see that "theory" often is mentioned

in proximity of "method", which differs from the ideals championed by older discipline-forming texts. A possible tentative conclusion of this change might be that in recent years theoretical argumentation has been integrated with historical narratives, resulting in a dual-layered style of writing. In this way, previous ideals of flowing and suggestive prose have been combined with the expectations of argumentative text found in a wider community of scholars.

Conclusions

In this article, I have analysed the way publications in digital history and Swedish intellectual history discuss methodology. On the one hand, I have compared key methodological texts, which contain reflexive methodological discussions that can be considered a form of rhetorical boundary-work. On the other hand, I have made a digital analysis of two collections of texts from each field. The first approach relied on a form of qualitative reading common in Swedish intellectual history, whereas the collocation analysis used in the second section is a common method for text analysis among digital historians and digital humanists.

While both the qualitative and digital analysis carried out in this article have been limited in scope, and we thus should refrain from drawing any general or systematic conclusions, the act of drawing these methods together itself illuminates the relationship between methodology and style in different genres of history writing. While the first section maintained a mainly chronological narrative, which focused on historiographical and field-defining debates between diverse authors, the second section instead came to focus more explicitly on my employed method. This urge to focus more on the research process in the second section could be related to how, as discussed previously, digital history has been conceptualised as a cross-disciplinary and method-mediating field. Digital methods of distant reading, including the collocation analysis used here, introduce layers of numerical analysis between textual sources and historical writing – layers which constantly need to be integrated and explained. What choices were made when words were lemmatised? What kind of digital analysis has then been carried out, and how does it work? What numbers do they output, and how can they be interpreted? What are the interpretative possibilities and limitations of the methods that have been employed, and would other forms of analysis have produced different results? If we leave these discussions out of the final publications, many digital methods would appear like little-convincing and opaque crystal balls. As I began employing digital methods, I thus also started writing differently.

At the same time, collocation analysis turned out to be highly useful

for a smaller study such as this one. Even though the texts I examined are of a limited scope compared to many of the big data sets commonly used in digital humanities, and I potentially also could have approached the research articles using an analogue close reading, I believe my methods made it possible to move beyond singular examples and instead to approach the texts as a holistic whole. Distant reading made it possible to discuss general trends, without losing the close focus on the actual textual context of the words and concepts that I studied. Thus, the article is also an example of how relatively simple and transparent distant-reading methods such as collocation analysis could be useful as a complementary tool used in conjunction with qualitative analyses of historical texts.

An important aspect, which I touched upon when comparing these two fields and their different ways of approaching sources and history writing, is the fact that the problem of transparency does not seem to burden qualitative close readings in the same way that it does digital distant readings. Perhaps this lesser need for justification is partly a result of historians' relative familiarity with qualitative methods for text analysis. Such an interpretation would clearly go hand-in-hand with many digital historians' own view of the field as revolving around intermediation of computational and historical methods. If historians were familiar with these methods, there would be little need for mediation, and consequently perhaps even for a distinct digital history at all. Such a view of why digital historians focus on method in their publications thus also resonates with Zaagsma's argument from 2013, that digital history is a transitory term, which ideally should dissolve when methods such as distant reading have been integrated into mainstream historical methodology. Nevertheless, Zaagsma's hope "that within a decade or so there will be no more talk of 'digital history' as all history is somehow 'digital' in terms of incorporation of new types of sources, methods and ways of dissemination", does seem even farther away now almost ten years after his article was published.[36] If anything, with the emergence of dedicated conferences and centres, digital history instead seems to have taken shape as one distinct approach to writing history among many. Perhaps the most realistic future development is neither one where all historians employ digital methods and where the term "digital history" thus will disappear, nor one where digital history remains distinct from traditional historiography. Instead, despite the intentions of early proponents such as Zaagsma, there are many indications that digital history might establish itself as a historical approach among many, not unlike, e.g., social history, cultural history, or microhistory before it.

Perhaps there are more reasons than these mere pedagogical aspects for why digital history and Swedish intellectual history treat methodological

discussions differently. Digital analysis of historical text always consists of a series of transformations between different media: from source text to data, which is then processed into numbers according to categories and algorithms defined by the historians and the tools they use, and then finally to be transferred back into text in the form of historical writing. While qualitative historians naturally also transform their material – from source text, into narrative supporting an argument, and ultimately into a series of conclusions – these transformations can usually be manifested through the interplay of narrative, quotes, references, and analytical text. In the statistical data produced by collocation analysis or topic modelling there are no quotes to be found. Instead, there are only numbers and lists of words, which somehow need to be explained and given context if the historical argument which they are a part of is to become convincing. Digital historians thus not only mediate between different epistemic traditions, but also between different media forms, in ways that bear some resemblance to the juggling of both words and numbers in traditional quantitative history based on statistical analysis. Perhaps it is thus inevitable, in historical analyses based on distant reading methods, that for example graphs are substituted for evocative narratives, or that blockquotes are replaced by tables.

But if the methodological focus of digital history is a result of the ways it relies on transformations between diverse media forms, how can a field such as Swedish intellectual history employ digital methods, and still maintain a style marked by suggestive historical narratives unburdened by explicit methodological discussions? Perhaps we could find inspiration in the way Swedish intellectual history from the 1980s onward integrated theoretical argumentation with the field's traditional flowing and suggestive historical narratives. By adding more explicit reflexive methodological discussion as a third layer to texts – such a discussion of how we have related to databases, digital representation of sources, or methods for digital analysis – complexity would surely increase, but so would also the quality of our research. Such a more conscious way integrating methodological discussions into our narratives, would also be a way of learning from a broader critique of humanists' too uncritical use of basic digital tools, such as full-text search.[37] Still, future intellectual historians' task of creating a style of history writing that weaves together the field's qualitative tradition with explicit reflection on digital methods is indeed a daunting one.

Notes

1. Mario Biagioli and Peter Galison: "Introduction" in Mario Biagioli and Peter Galison (eds.): *Scientific authorship* (New York, 2003), 1.

2. Thomas F. Gieryn: "Boundary-Work and the demarcation of science from non-science. Strains and interests in professional ideologies of scientists" in *American Sociological Review* 48:6 (1983), 781–95.

3. As the term "Swedish history of learning and ideas" is quite a mouthful, in the following I will refer to this field as Swedish intellectual history. Still, we should be aware that it includes a broader range of subjects than those often considered part of intellectual history, such as, e.g., history of science, medicine, and technology.

4. See, e.g., Cameron Blevins: "Digital history's perpetual future tense" in Matthew K. Gold and Lauren F. Klein (eds.): *Debates in the Digital Humanities 2016* (Minneapolis, 2016), 308–24.

5. See, e.g., Thomas L. Griffiths and Mark Steyvers: "Finding scientific topics" in *Proceedings of the National Academy of Sciences of the United States of America* 101: Suppl 1 (2004), 5228–35; David Hall, Daniel Jurafsky and Christopher D. Manning: "Studying the history of ideas using Topic Models", *Proceedings of the 2008 Conference on Empirical Methods in Natural Language Processing* (Honolulu, Hawaii, 2008-10), 363–71; Alex H. Poole: "The conceptual ecology of digital humanities" in *Journal of Documentation* 73:1 (2017), 91–122; Jan Luhmann and Manuel Burghardt: "Digital humanities—A discipline in its own right? An analysis of the role and position of digital humanities in the academic landscape", in *Journal of the Association for Information Science and Technology* 73:2 (2022), 148–171.

6. The term "distant reading" was coined in Franco Moretti: "Conjectures on world literature", *New Left Review* 1, (2000), 54–68. For an introduction to these methods, see Karl Berglund: "Introduktion till fjärrläsning" in Johan Jarlbrink and Fredrik Norén (eds.): *Digitala metoder i humaniora och samhällsvetenskap* (Lund, 2021), 187–209.

7. For a recent broader history of the early days of the Swedish intellectual history, see Anton Jansson: "Things are different elsewhere. An intellectual history of intellectual history in Sweden" in *Global Intellectual History* 6:1 (2021), 85–86. See also Tore Frängsmyr: "Johan Nordström och lärdomshistoriens etablering i Sverige", *Lychnos* 1983 (1983), 131–49.

8. All translations of these Swedish methodological texts are my own, and the original quotes can be found in the notes. "[S]tudera det vetenskapliga livet i dess samband med den mänskliga historien i dess helhet", Johan Nordström: "Vetenskapshistoria" in Nils Andersson and Henrik Björck (eds.): *Idéhistoria i tiden. Perspektiv på ämnets identitet under sjutiofem år* (Stockholm, 2008), 56–60.

9. "Varje gränsdragning mellan olika historiska discipliner är därför något flyktigt och ovidkommande", Sten Lindroth: "Om lärdomshistoria" in Nils Andersson and Henrik Björck (eds.): *Idéhistoria i tiden. Perspektiv på ämnets identitet under sjutiofem år* (Stockholm, 2008), 71.

10. For excepts from this Swedish debate, see Nils Andersson and Henrik Björck (eds.): *Idéhistoria i tiden. Perspektiv på ämnets identitet under sjuttiofem år* (Stockholm, 2008), 74–115. See also Nils Andersson and Henrik Björck: "Efterskrift" in Nils Andersson and Henrik Björck (eds.): *Vad är idéhistoria? Perspektiv på ämnets identitet under sextio år* (Stockholm, 1994), 381. This debate was clearly influenced by the in-

ternational discussions sparked by C. P. Snow: *The two cultures and the scientific revolution* (Cambridge, 1959).

11. Gunnar Aspelin: "'Inledning' i Tankelinjer och trosformer" in Nils Andersson and Henrik Björck (eds.): *Idéhistoria i tiden. Perspektiv på ämnets identitet under sjutiofem år* (Stockholm, 2008), 60–67. This and subsequent translations from Swedish to English are my own.

12. "religiösa, litterära och konstnärliga", Lindroth: "Om lärdomshistoria", 71.

13. "Det viktigaste elementet i det som kan kallas Nordströms metod är strävan till inlevelse och historisk förståelse", Bo Lindberg and Ingemar Nilsson: "Sunt förnuft och historisk inlevelse" in Nils Andersson and Henrik Björck (eds.): *Idéhistoria i tiden. Perspektiv på ämnets identitet under sjuttiofem år* (Stockholm, 2008), 148, see also 159–161.

14. "För Lindroth kunde redan ordet 'metod' väcka motvilja", "metod var något man talade om när man inte hade något att forska på", Gunnar Eriksson: "Den nordströmska skolan" in Nils Andersson and Henrik Björck (eds.): *Idéhistoria i tiden. Perspektiv på ämnets identitet under sjuttiofem år* (Stockholm, 2008), 170.

15. "siffror framför ord, formler framför långdragna meningar och en mycket utvecklad och stram terminologi, har nordströmianerna skrivit i humanistprosans traditionella stil, där språket framstår som överflödande rikt, suggestivt och laddat med kvaliteter och kanske inte utan sin mångtydighet eller i varje fall med rikt mönster av menings- och uttrycksgraderingar." Ibid., 173.

16. Andersson and Björck: "Efterskrift", 378–379.

17. In the history of science, this narrower scope received criticism already in the 1980s and 90s. See, e.g., Charles Rosenberg: "Editorial: Isis at seventy-five" in *Isis* 78:4 (1987), 515–17; James A. Secord: "The big picture. Introduction" in *The British Journal for the History of Science* 26:4 (1993), 387–89. For a discussion of this development in a broader historiographical context, see Brad S. Gregory: "Is small beautiful? Microhistory and the history of everyday life" in *History and Theory* 38:1 (1999), 100–110.

18. Ingemar Nilsson: "Förord" in Ingemar Nilsson (eds.): *Idéhistoriska perspektiv. Symposium i Göteborg, mars 2000* (Göteborg, 2000), 5.

19. "Interchange: The promise of Digital History", in *Journal of American History* 95:2 (2008), 453.

20. This trope of newness can be found, e.g., in titles such as Roy Rosenzweig: "Can history be open source? Wikipedia and the future of the past" in *The Journal of American History* 93:1 (2006), 117–46; Lena Roland and David Bawden: "The future of history. Investigating the preservation of information in the digital age" in *Library & Information History* 28:3 (2012), 220–36; Mats Fridlund, Mila Oiva, and Petri Paju (eds.): *Digital histories. Emergent approaches within the New Digital History* (Helsingfors, 2020). For a critique of this focus on future potential and novelty, see for example Blevins: "Digital History's perpetual future tense". For a historisation of historians' use of computing, see William G. Thomas: "Computing and the historical imagination" in Susan Schreibman, Ray Siemens, and John Unsworth (eds.): *A companion to digital humanities* (Malden, MA, 2004), 56–68.

21. Jo Guldi and David Armitage: *The history manifesto* (Cambridge, 2014), 11. This proposal of a new longue durée was criticized, for example in Deborah Cohen and Peter Mandler: "The history manifesto. A Critique" in *The American Historical Review* 120:2 (2015), 530–42. For a discussion of writing digital *longue durées* in history of science, see David Armitage and Jo Guldi: "Longing for the longue durée" in *Isis* 107:2 (2016), 353–57.

22. Gerben Zaagsma: "On Digital History" in *BMGN: Low Countries Historical Review* 128:4 (2013), 14.

23. Ibid., 16.

24. See for example the contribution in Fridlund, Oiva and Paju (eds.): *Digital Histories*.

25. For a critical discussion of the primary focus on textual sources in digital history, see Hannu Salmi: *What is digital history?* (Cambridge, 2021), 29–56.

26. Tim van der Heijden and Andreas Fickers: "Inside the trading zone: Thinkering in a Digital History lab" in *Digital Humanities Quarterly* 3:14 (2020); Max Kemman: *Trading Zones of Digital History* (Oldenbourg, 2021).

27. C. Annemieke Romein et al: "State of the Field: Digital History", in *History* 105:365 (2020), 293.

28. Toni Weller: "Introduction. History in the digital age", in Toni Weller (ed): *History in the digital age* (London, 2012), 1; Zaagsma: "On Digital History", 5 note 9; Dan Edelstein: "Intellectual history and digital humanities" in *Modern Intellectual History* 13:1 (2016), 246.

29. Kristen Nawrotzki and Jack Dougherty: "Introduction" in Kristen Nawrotzki and Jack Dougherty (eds.): *Writing history in the digital age* (2013), 4.

30. For a historical analysis of the lack of argumentation in digital history, see Blevins: "Digital History's perpetual future tense".

31. Andrew Piper: "There Will Be Numbers" in *Journal of Cultural Analytics*, 2016, 11062.

32. Fridlund, Oiva and Paju (eds.): *Digital Histories*.

33. Derek Greene and James P. Cross: "Exploring the political agenda of the European Parliament using a dynamic Topic Modeling approach" in *Political Analysis* 25:1 (2017), 77–94; Jo Guldi: "The measures of modernity. The new quantitative metrics of historical change over time and their critical interpretation" in *International Journal for History, Culture and Modernity* 7:1 (2019), 910.

34. For an example of a more manual approach, see Peter De Bolla: *The architecture of concepts. The historical formation of human rights* (New York, 2013). For a discussion of Bolla, as well as of automatic and manual uses of collocation analysis, see Edelstein: "Intellectual history and digital humanities".

35. Again, each collocated word represents a broader collection of word forms, including both English and Swedish morphological forms of the basic lemma.

36. Zaagsma: "On digital history", 16.

37. See, e.g., Max Kemman, Martijn Kleppe and Stef Scagliola: "Just Google it. Digital research practices of humanities Scholars" in *Proceedings of the Digital Humanities Congress 2012*, 2014.

Acknowledgments

This study was supported by the Swedish Research Council (Ref: 2017-02271).