# I  introduction

Before we can consider digital scholarly editions, we must consider the interdisciplinary framework in which they are discussed. This framework emerges from many different traditions but does not, as one would expect, cover all questions that can arise when we want to understand *digital* scholarly editions specifically. For that, we must thread philology, art history, the philosophy of the (digital) humanities, and the ways in which technology and scholarship interact and have interacted in setting up the environment for scholarly editing. This includes issues of reproduction and the topic of facsimile editions, the history and practice of which is largely unexplored in editorial theory, as well as an examination of binary views on 'original' vs. 'copy'. The discussion is drawn in circles around and towards modelling, which will be the focus of the following methodological chapter.

*'The surrogates mean everything in life, and are, in fact, the last essence of wisdom.'*

*'You must be doing very well for yourself, dear Sander,' the Prince replied, 'to feel comfortable confessing such outrageous things in public.'*

THEODOR FONTANE, *Schach von Wuthenow: Erzählung aus der Zeit des Regiments Gensdarmes*, Leipzig: Wilhelm Friedrich, 1883, 90, original: "‚Die Surrogate bedeuten überhaupt alles im Leben, und sind recht eigentlich die letzte Weisheitsessenz.' ‚Es muss sehr gut mit Ihnen stehn, lieber Sander,' entgegnete der Prinz, ‚daß Sie sich zu solchen Ungeheuerlichkeiten offen bekennen können.'"

# introduction
## *of interdisciplinary considerations*

Let us begin with a conflict. Conflicts are, after all, the contentious siblings of arguments; and any scholarly book should have those. In this case, conflict is meant to be taken quite seriously as the descriptor of a heated debate. A quarrel, a fight. Such was the situation in 1930 when art historian Erwin Panofsky – still in Hamburg, not yet on his way to Princeton[1] – drafted a "Solomonic response"[2] to an issue that had been

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**1** Erwin Panofsky (1892–1968), one of the most eminent art historians of the 20th century, emigrated from Germany to the United States in 1933 after his contract had been terminated because he was Jewish. For more biographical information, see DIETER WUTTKE, "Erwin Panofsky (1892–1968)," in: *The Routledge Companion to Medieval Iconography*, ed. by Colum Hourihane, London / New York: Routledge, 2017, 105–122. Henri van de Waal, a fellow art historian and the creator of *Iconclass*, furthermore wrote an obituary that is well worth reading, see HENRI VAN DE WAAL, "In Memoriam Erwin Panofsky, March 30 1892 – March 14 1968," in: *Mededelingen der Koninklijke Nederlandse Akademie van Wetenschappen, Afd. Letterkunde* 35/6 (1972), 227–237, online: <http://www.dwc.knaw.nl/DL/publications/PU00009846.pdf> (accessed 12 January 2023) [originally spoken at a gathering on 14 April 1968, printed after van de Waal's own passing].

**2** Remark by the editors of the volume in which the article was last reprinted, cf. ERWIN PANOFSKY, *Deutschsprachige Aufsätze* (Studien aus dem Warburg-Haus; vol. 1,2), ed. by Karen Michels and Martin Warnke, Berlin: Akademie-Verlag, 1998, 1090 (original: "salomonische Antwort"). For Panofsky's article, see ERWIN PANOFSKY, "Original und Faksimilereproduktion," in: id., *Deutschsprachige Aufsätze* (Studien aus dem Warburg-Haus; vol. 1,2), ed. by Karen Michels and Martin Warnke, Berlin: Akademie-Verlag, 1998, 1078–1089 [originally published in *Der Kreis* 7 (1930), 3–16; rediscovered and reproduced in *Idea: Jahrbuch der Hamburger Kunsthalle* 5 (1986), 111–124]. A translation of the article is available as ERWIN PANOFSKY, "Original and Facsimile Reproduction," transl. by Timothy Grundy, in: *RES: Anthropology and Aesthetics* 57–58 (2010), 330–338 (this translation will not be used here due to a different understanding as to how to convey the 'tone' of the original).

plaguing the German art world for close to a year, staged in the pages of the journal *Der Kreis*: the so-called *Hamburger Faksimile-Streit* ('facsimile dispute of Hamburg').[3] It had begun with a bellicose article by museum director Max Sauerlandt in March 1929, criticizing a galvanoplastic reproduction of the *Bamberger Reiter* ('Bamberg Horseman', a statue in the cathedral of Bamberg that had by then already taken on a mythical status of national import).[4] The discussion triggered by his article soon devolved into a more fundamental debate that primarily saw Carl Georg Heise, at the time director of the *Museum für Kunst und Kulturgeschichte* in Lübeck and responsible for a controversial commission of plaster replicas of medieval statues, on the receiving end of the abuse.[5] Another target of scorn was Alexander Dorner, director of a museum in Hanover, who had curated an exhibition that presented 'original' and 'facsimile' next to each other and encouraged visitors to wonder which was which.[6] In the months that followed, many more figures became involved until Erwin Panofsky, professor at the university of Hamburg, was invited to

**3** In Anglophone literature sometimes referred to as 'facsimile debate' or 'reproduction debate'. For general literature on this, see Anika Reineke, "Authentizität in der Weimarer Republik: Max Sauerlandt und der Hamburger Faksimile-Streit," in: *Authentizität und Material: Konstellationen in der Kunst seit 1900* (Outlines; vol. 11), ed. by Regula Krähenbühl and Roger Fayet, Heidelberg: arthistoricum.net, 2019, 118–131 (for a full bibliography on the topic, Reineke refers to her *Magister* thesis from 2012 at the University of Hamburg, cf. ibid., 129, fn. 18), and Michael Diers, "Kunst und Reproduktion: Der Hamburger Faksimile-Streit. Zum Wiederabdruck eines unbekannt gebliebenen Panofsky-Aufsatzes von 1930," in: *Idea: Jahrbuch der Hamburger Kunsthalle* 5 (1986), 125–137.
**4** On the topic of which see Berthold Hinz, "Der 'Bamberger Reiter'," in: *Das Kunstwerk zwischen Wissenschaft und Weltanschauung*, ed. by Martin Warnke, Gütersloh: Bertelsmann, 1970, 26–47, and the translation Berthold Hinz, "The Bamberg Horseman," transl. by Jonathan Blower and Johanna Wild, in: *Art in Translation* 6/2 (2014), 157–179, online: <https://doi.org/10.2752/175613114X13998876655130>. See furthermore William C. McDonald, "Concerning the Use and Abuse of a Medieval Statue in Germany from 1920–1940: The Case of the Bamberger Reiter," in: *Perspicuitas: Internet-Periodicum für mediävistische Sprach-, Literatur- und Kulturwissenschaft* (2010), [1–21], online: <https://www.uni-due.de/imperia/md/content/perspicuitas/mcdonald.pdf> (accessed 27 September 2023).
**5** Cf. Diers 1986, 126f. and Reineke 2019, 120-122.
**6** Cf. Reineke 2019, 122. On Alexander Dorner's role in the *Faksimile-Streit*, see also Rebecca Uchill, "Original und Reproduktion: Alexander Dorner and the (Re)production of Art Experience," in: *Future Interior: Journal of Historic Preservation, History, Theory, and Criticism* 12/2 (2015), 13–37.

make a contribution.[7] His response was so long that it had to be printed separately, although not in an official special issue, which was one of the reasons why it did not enter the canon of Panofsky's work until a copy of the article was unearthed from the private collection of one of his students in the 1980s.[8]

Even today, this historical episode is not particularly well-known – certainly not as well-known as the famous contemporaneous article *Das Kunstwerk im Zeitalter seiner technischen Reproduzierbarkeit* ('The Work of Art in the Age of Mechanical Reproduction') by Walter Benjamin[9] which we find referenced, for example, in Mateusz Fafinski's "Facsimile Narratives" (2022)[10] or Mats Dahlström's elaboration on "Copies and Facsimile" (2019)[11] where facsimilization in digital scholarly editing is the focus of discussion; perhaps for the first time, at least to that extent. We will, of course, turn our attention towards the concept of 'facsimiles' in digital scholarly editing eventually. For the moment, however, let us stay with Panofsky's essay and why it is important in

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**7** For the bibliography of the other contributions, see Diers 1986, 134, fn. 5.

**8** Cf. ibid., 125. Diers stresses that the essay had been all but forgotten in the meantime but as evidenced by an article that was pointed out to him after he had finished his own manuscript – Ulrich Weisner, "Original und Reproduktion," in: *Westfalen: Hefte für Geschichte, Kunst und Volkskunde* 55/1–2 (1977), 205–219, cf. Diers 1986, 137 – and as furthermore evidenced by a mention of Panofsky's essay in an article that Diers would not seem to have been aware of nor been made aware of – Frank Weitenkampf, "What is a Facsimile?" in: *The Papers of the Bibliographical Society of America* 37/2 (1943), 114–130, here 128f. –, it may have resonated with more scholars and librarians than one might think; or at least with more than none. Of course, such a resonance would have been dependent on having access to it, perhaps through personal acquaintance.

**9** See Walter Benjamin, *Das Kunstwerk im Zeitalter seiner technischen Reproduzierbarkeit* (Werke und Nachlaß / Walter Benjamin; vol. 16), ed. by Burkhardt Lindner, Berlin: Suhrkamp, 2013 [collection of five versions; the essay was written in 1935 and originally published in a redacted French version as "L'œuvre d'art à l'époque de sa reproduction mécanisée," transl. by Pierre Klossowski, in: *Zeitschrift für Sozialforschung* 5/1 (1936), 40–68]. For an English translation, see Walter Benjamin, "The Work of Art in the Age of Mechanical Reproduction," transl. by Harry Zohn, in: Walter Benjamin, *Illuminations: Essays and Reflections*, ed. by Hannah Arendt, London: Penguin Random House, 2015, 211–244 [reprint; originally published in New York: Harcourt, Brace & World, 1968].

**10** Cf. Fafinski 2022, 98.

**11** Cf. Mats Dahlström, "Copies and Facsimiles," in: *International Journal of Digital Humanities* 1 (2019), 195–208, here 197, online: <https://doi.org/10.1007/s42803-019-00017-5>.

the present context, more so than Benjamin's article which arose at a similar time and borrows from the language of the other participants in the *Hamburger Faksimile-Streit,* such as when Benjamin speaks of the 'aura' of the original.[12]

## A.
### 'ORIGINAL' VERSUS 'COPY'

In comparison, Panofsky opts for an earthier approach. He indicates the issue at the heart of the debate by opening his letter to the editors with the quote from Fontane translated at the beginning of this chapter: In his view, *Originalfanatiker* ('fanatics of the original') and *Faksimilisten* ('proponents of facsimiles') both erroneously suppose that a facsimile is intended to replace the original, to be a surrogate, to *deceive* an observer, and consequently much of their discussion revolves around the question whether such a reproduction is technically possible – but, asks Panofsky, "since when is the subjective intention of the creator or the subjective effect on the (not yet trained) observer proof of the objective matter at hand?"[13]

It is, he submits, misguided to solely regard the issue of facsimile reproduction as a moral or aesthetic one without taking practical aspects into account. Unlike his interlocutors, Panofsky is not interested in discerning whether it is even so much as *seemly* to reproduce art; he is interested in the quality and design of the reproduction in relation to the purposes it ought to serve; and these purposes are, in his view, never

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**12** Diers speculates that Benjamin might have been aware of the *Hamburger Faksimile-Streit* but he also admits that the similarities in language and other aspects might be coincidental; cf. DIERS 1986, 129–131. György Markus who discusses Benjamin in this regard at more length states that "[i]t cannot [...] be convincingly proven that he knew about it, though if not, this certainly would be a rather strange case of coincidence" (GYÖRGY MARKUS, "Walter Benjamin and the German 'Reproduction Debate'," in: *Moderne begreifen: Zur Paradoxie eines sozio-ästhetischen Deutungsmusters*, ed. by Christine Magerski, Robert Savage and Christiane Weller, Wiesbaden: Deutscher Universitäts-Verlag, 2007, 351–364, here 352f.). Cf. also UCHILL 2015, 26f.
**13** PANOFSKY 1930/1998, 1079, original: "Allein seit wann beweist die subjektive Absicht des Erzeugers und die ebenso subjektive Wirkung auf den (noch untrainierten) Beschauer auch nur das Geringste für den objektiven Sachverhalt?"

identical to the purposes of the 'original' – meaning that the experience
of either will never be the same since it is not the point of a facsimile
to have them be the same.[14] He underlines his arguments with a wealth
of examples, some of which are grounded in the specific context of the
then-ongoing debate, such as when he emphasizes the benefits of listen-
ing to a gramophone record versus the experience of a live performance,
proposing that it is not necessary to favour one over the other since they
are not in direct competition.[15] He also points out that accusations per-
taining to the mechanical nature of reproduction, especially the spectre
of a 'machine god' raised by art historian Kurt Karl Eberlein,[16] neglect
fundamental technical differences when they equate musical records
with reproductions of pictorial artwork; the latter involving, in Panof-
sky's opinion, rather *too much* human intervention in the stages of pro-
duction, e.g. in the process of colour selection, leading to uneven results
which he hardly thinks desirable.[17]

Leaving such details aside, Panofsky arguably makes his most
interesting observation when he references a facsimile of the *Schwarzes
Gebetbuch* ('Black Prayer Book'), held by the Austrian National Library
in Vienna.[18] This project causes him to wonder about the purposes that

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**14** Cf. ibid.

**15** Cf. Panofsky 1930/1998, 1079–1081.

**16** Cf. ibid., 1082. For the relevant passage in Eberlein's article, cf. Kurt Karl Eberlein,
"Zur Frage: ‚Original oder Faksimilereproduktion?'" in: *Der Kreis* 6/11 (1929), 650–653,
here 651, online: <https://doi.org/10.11588/diglit.56522#0748>. We may take note of the
fact that Eberlein later became a fervent supporter of the NS regime and that his rhetoric
in this matter already mirrors a specific kind of language rooted in an idealization of the
'purity' of the original which is alleged to be representative of a certain superiority of
a 'cultured civilization', under threat by 'the machine'. On Eberlein's argumentation in
this debate, cf. also Uchill 2015, 23f., 27, and 34, fn. 24 for reference to an English trans-
lation of his contribution; for biographical information on Eberlein, see Peter Bett-
hausen [et al.], 'Eberlein, Kurt Karl,' in: *Metzler Kunsthistoriker Lexikon*, Stuttgart: J.B.
Metzler, 2007, 71–86, online: <https://doi.org/10.1007/978-3-476-05262-9_5>.

**17** Cf. Panofsky 1930/1998, 1081–1083.

**18** This must be referring to the Codex Vindobonensis 1856 at the ÖNB, a 15th century
manuscript also known as *Schwarzes Gebetbuch des Galeazzo Maria Sforza* ('The Black
Hours of Galeazzo Maria Sforza'). It has been reproduced in several facsimile editions
over the years; the one that Panofsky must be referring to was edited by Ottokar Smital
and published in two volumes in Vienna by the Österreichische Staatsdruckerei in 1930;
the miniatures were reproduced with the *Lichtdruckverfahren* (a photolithographical
printing process). As a librarian and head of the manuscript collection, Smital was highly

facsimiles could serve, a documentary value being one of them: "Some art historians," he states, "would be delighted if the burnt 'Heures de Turin' had at least survived in the form of facsimile prints – even if they knew that those facsimile prints would be rendered useless in a few hundred years of time."[19] In a footnote, he elaborates further that "the facsimile reproduction is not supposed to edify or educate but [...] to assist the 'poor student' as well as the rich *Erlebemann* [...] in their fight against space and time"[20] – meaning that it ought to be seen pragmatically as a way to improve the accessibility of materials; and he specifically adds that "the existing originals are not accessible to everyone, especially not to those who 'need' them – whether for 'academic' or humane reasons."[21] Thus, the merit of the facsimile reproduction lies in that "which it can provide (and will provide more completely once it has been thoroughly

interested in facsimile reproductions and responsible for other facsimile publications such as of the *Codex Vindobonensis Mexicanus 1* (1929) and the *Livre du Cuerd'Amours Espris* by René d'Anjou (1926), cf. ANDREAS FINGERNAGEL and ANNA ZSCHOKKE, 'Smital, Ottokar,' in: *Österreichisches Biographisches Lexikon 1815–1950* (vol. 12), ed. by Eva Obermayer-Marnach, Graz [et al.]: Böhlau, 2005, 372, online: <https://doi.org/10.1553/0x00284b68>.

**19** PANOFSKY 1930/1998, 1087, original: "[...] und mancher Kunsthistoriker wäre froh, wenn die verbrannten ,Heures de Turin' wenigstens in Faksimiledrucken auf uns gekommen wären – auch wenn er wüßte, daß diese Faksimiledrucke in ein paar Jahrhunderten nicht mehr zu gebrauchen sein würden." Here he argues against Sauerlandt's assertion that the different materiality of the original and facsimile copies means that they would develop apart with age – to which Panofsky replies that one could simply make a new facsimile if this gap grew too wide and that the facsimile could even have "documentary value" (ibid., 1086) if it were the original that deteriorated significantly and therefore ceased to resemble its 'original' state (cf. PANOFSKY 1930/1998, 1086).

**20** Ibid., 1087, fn. 5, original: "Die Faksimilereproduktion soll weder erheben noch erziehen, sondern sie soll [...] sowohl dem ,armen Studenten' als dem reichen Erlebemann [...] bei dem [...] Kampf gegen Raum und Zeit [...] Hilfe gewähren." I did not translate the word *Erlebemann* since it is a sophisticated wordplay on *Lebemann* ('bon vivant') to denote the critics in the facsimile debate who intently focus on the *Erleben* ('experience') of the original – this is made obvious by the qualification of the term that Panofsky supplies in parentheses, namely that he means the rich 'experiencing' man "provided he does not belong to those who have an 'insurmountable aversion' to everything 'reproductive'" (PANOFSKY 1930/1998, 1087, fn. 5, original: "vorausgesetzt, daß er nicht zu denen gehört, die gegen das ,Reproduktive' jene ,unüberwindliche Abneigung' haben").

**21** Ibid., 1087, fn. 5, original: "[...] aber auch die existierenden Originale sind nicht jedem erreichbar, sind gerade denen oft nicht erreichbar, die sie – ob ,wissenschaftlich' oder menschlich – brauchen."

mechanized): not an object of deception but a foundation for an aesthetic transformation."[22]

Although it is not the primary objective of this book to investigate facsimile editions, Panofsky's thoughts on the matter are interesting for several reasons: (1) they concern the issue of a *reproducibility* of visual works, (2) they highlight that frameworks of technical feasibility must not be confused with statements on the fundamental *nature* of things,[23] (3) they address an anxiety about a perceived dichotomy between 'man' and 'machine'. This sentiment is, of course, not unique to the *Hamburger Faksimile-Streit* and might even be characterized as penetrating time, disciplines, and languages: Take, for example, philologist and medievalist Stephen G. Nichols. In his book *From Parchment to Cyberspace: Medieval Literature in the Digital Age* (2016), he observes that there was or rather is a "fear that the perfectly replicated image will somehow replace the 'real' artifact."[24] Describing the reaction to digitized medieval manuscripts specifically that he experienced in personal encounters, he surmises that "the negative energy taps into an age-old antagonism between 'original' and 'imitation' or 'copy'."[25]

What may, at first glance, only seem like a historical episode then, reveals itself to be still – or perhaps especially so – relevant in an age where the discussion has shifted to a *mass* reproduction of cultural heritage objects and, consequently, even further: namely to the question what *to do* with those reproductions. What purpose do they serve? Preservation, accessibility? And what *other types* of reproduction are there, aside from imaging 'originals'?

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**22** PANOFSKY 1930/1998, 1087, fn. 5, original: "[Die Faksimilereproduktion soll das leisten], was sie eben leisten kann (und in vollkommenerer Weise leisten wird, wenn sie durchaus mechanisiert sein wird): nicht Gegenstand einer Täuschung zu sein, sondern Grundlage einer ästhetischen Transformation."
**23** He specifically warns against formulating "generally binding sentences about 'the' nature of 'the' artwork" (ibid., 1086, original: "allgemeinverbindliche Sätze über 'das' Wesen 'des' Kunstwerks") and recommends rather a "systemic and, in particular, historical" (PANOFSKY 1930/1998, 1086, original: "systematisch und vor allem historisch") differentiation, cf. ibid.
**24** STEPHEN G. NICHOLS, *From Parchment to Cyberspace: Medieval Literature in the Digital Age*, New York [et al.]: Peter Lang, 2016, 45.
**25** Ibid.

In another footnote in Panofsky's article, we find a hint at what would seem to be a core issue to consider in the discussion of digital scholarly editions beyond text:

> Logically impermissible (and therefore n e i t h e r evidence pro nor contra) is however the comparison, already rejected by Eberlein, between the facsimile reproduction and the printed edition of Goethe's poems or Mozart's quartets. Here, we do not have a recording or reproduction of the a r t i s - t i c  a c h i e v e m e n t itself but merely a recording and reproduction of c o n v e n t i o n a l  s i g n s that relate to artistic achievement as the formula $H_2O$ does to actual water.[26]

With this little footnote, Panofsky provides us with a preview of something that Nelson Goodman would later turn into his main theory in the 1960s; something which Gérard Genette has termed "the Goodmanian theory of the allographic regime"[27] – a theory about the reproducibility of (art-)works that focuses on the "unlimited reproduction of the instances of manifestation of an ideal, unique object of immanence,"[28] meaning that literary, textual works or works that otherwise have a notation system are deemed allographic because they are 'copyable' whereas paintings and sculptures, in that view, cannot be replicated, only forged or imitated;[29] a stance that Panofsky, one imagines, might have found rather

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**26** PANOFSKY 1930/1998, 1081f., fn. 2, original: "Logisch unzulässig (und daher w e d e r pro noch contra beweiskräftig) ist dagegen der schon von Eberlein zurückgewiesene Vergleich der Faksimilereproduktion mit einer Druckausgabe der Goethischen Gedichte oder der Mozartischen Quartette. Hier handelt es sich ja gar nicht um ein Festhalten und Vervielfältigen der k ü n s t l e r i s c h e n  L e i s t u n g selbst, sondern nur um ein Festhalten und Vervielfältigen k o n v e n t i o n e l l e r  Z e i c h e n, die sich zur künstlerischen Leistung verhalten wie die Formel $H_2O$ zu wirklichem Wasser." (The original contains the increased letter tracking for emphasis.)
**27** GÉRARD GENETTE, *The Work of Art: Immanence and Transcendence*, transl. by G. M. Goshgarian, Ithaca / London: Cornell University Press, 1997, 71 [originally published as *L'œuvre de l'art: Immanence et transcendence*, Paris: Éditions du Seuil, 1994].
**28** Ibid., 175.
**29** Goodman theorized that autographic artworks cannot be reproduced without becoming imitations or forgeries (= paintings and sculptures) whereas allographic artworks can be reproduced because they are based on a notation system (= literature and music), enabling a "sameness of spelling" (NELSON GOODMAN, *Languages of Art: An Approach to a Theory of Symbols*, Indianapolis: Hackett, ²1976 [originally published in 1968], 112–122,

simplistic, despite of or rather because of his *avant la lettre* awareness of the finer points in this debate. We will have to take Goodman's semiotic work definition into account since references to it are frequent in literature that tentatively seeks to move away from or beyond questions of notational textual reproduction in scholarly editing contexts, even when such discussions, as is usually the case, are not even concerned with matters of pictorial transmission variance[30] – precisely because Goodman's theory denies that such a variance can even exist within the frame of a *picture work* and its *witnesses*. To Goodman, there is only one witness of a picture work: The physical object of 'the original'.[31]

Before we examine this question more closely, we would do well to establish the general framework within which these topics are of any concern to us to begin with. That framework is one of discipline, of methodology, and of objects of study. It reaches into issues of representation, of the 'real' and the 'imagined' or, indeed, 'imaged', into the anxieties illustrated by the *Hamburger Faksimile-Streit* at a different

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here 115). Regardless of whether one agrees with this semiotic distinction, it is quite another question whether this distinction is useful in defining the distinction between a text and a work, for example, a distinction that Goodman himself seemed to make but never used consistently, cf. ibid. See for a further discussion JOHNNY KONDRUP, "Text und Werk – zwei Begriffe auf dem Prüfstand," in: *editio* 27/1 (2013), 1–14, esp. 10f., online: <https://doi.org/10.1515/editio-2013-002>.

**30** Such as in DAHLSTRÖM 2019, 205–207, although Dahlström recognizes other issues with Goodman's theory, such as when he asks whether 'painting by numbers' might not be a form of "allographic painting" (ibid., 207).

**31** As indicated by the terminology of 'forgery', Goodman examines these questions under a theme of 'authenticity' and "genuineness" (GOODMAN ²1976, 119). He does not make any claims about the aesthetic qualities of original versus forgery (cf. ibid.) but neither are we, for the purposes of the inquiry in this book, interested in the aesthetic qualities of different witnesses or versions of a work, suggesting that that may not be the only objection one might raise in response to Goodman's theory. Before developing any arguments to that effect, we should note that Goodman's theory has been criticized before, even if not with lasting influence or much relevance in the present context, with the exception, perhaps, of Ralls; see ANTHONY RALLS, "The Uniqueness and Reproducibility of a Work of Art: A Critique of Goodman's Theory," in: *The Philosophical Quarterly* 22/86 (1972), 1–18, online: <https://doi.org/10.2307/2218587>. See furthermore DAVID TOPPER, "On the Fidelity of Pictures: A Critique of Goodman's Disjunction of Perspective and Realism," in: *Philosophia* 14 (1984), 187–98, online: <https://doi.org/10.1007/BF02378969>, and W. J. T. MITCHELL, "Realism, Irrealism, and Ideology: A Critique of Nelson Goodman," in: *The Journal of Aesthetic Education* 25/1 (1991), 23–35, online: <https://doi.org/10.2307/3333088>.

time, with different technologies at the disposal of scholars and curators; we might even say, under a different sky, with a different future looming on the horizon. In the evolving conversation, we can find one similarity, however: and that is the narrative of conflict.

## B.

### THE PHILOSOPHY OF AS-IF

If we continue with that theme, it is not because we want to speak it into existence but because it has been spoken into existence.[32] 'Revolution', 'disruption', 'tension'[33] – one might be forgiven for thinking that there was a conflict at the heart of the digital humanities, given such language. This conflict (if it exists at all outside of its discursive invocation) is not a conflict between theory and practice, as clashes within the field might have indicated in the past.[34] The conflict, or series of conflicts,

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**32** For the types of conflicts surrounding the digital humanities, we need not look further than the debate about virtue and value of the digital humanities in US-American academia, exemplified by two opposing articles in *The Chronicle of Higher Education* that were featured as part of what the editors called 'The Digital Humanities War' – see TED UNDERWOOD, "Dear Humanists: Fear Not the Digital Revolution," in: *The Chronicle Review* (27 March 2019), online: <https://www.chronicle.com/article/Dear-Humanists-Fear-Not-the/245987> (accessed 12 January 2023) and NAN Z. DA, "The Digital Humanities Debacle," in: *The Chronicle Review* (27 March 2019), online: <https://www.chronicle.com/article/The-Digital-Humanities-Debacle/245986> (accessed 12 January 2023).

**33** Cf. UNDERWOOD 2019; DOROTHY KIM and JESSE STOMMEL (Eds.), *Disrupting the Digital Humanities*, Santa Barbara: punctum, 2018; and CLAIRE WARWICK, "Building Theories or Theories of Building? A Tension at the Heart of Digital Humanities," in: *A New Companion to Digital Humanities*, ed. by Susan Schreibman, Ray Siemens and John Unsworth, Chichester, West Sussex: Wiley Blackwell, 2016, 538–552, online: <https://doi.org/10.1002/9781118680605.ch37>.

**34** These clashes within the digital humanities community have been widely debated, often under the opposing labels of 'hack' and 'yack' which already suggest that the roots of the tension may be of a social nature and related to warring definitions of scholarship; indeed, no one has yet put forth a convincing argument what conflict between theory and practice there might actually be, as opposed to a conflict between theoreticians and practitioners. For more on this topic, see WARWICK 2016 and BETHANY NOWVISKIE, "On the Origin of 'Hack' and 'Yack'," in: *Debates in the Digital Humanities 2016*, ed. by Matthew K. Gold and Lauren F. Klein, Minneapolis: University of Minnesota Press, 2016, 66–70, online: <https://doi.org/10.5749/9781452963761> [originally published in: *Journal of Digital Humanities* 3/2 (2014), online: <http://journalofdigitalhumanities.org/3-

seems to rest, rather, between binaries of contention. The formal and the informal.[35] The political and the apolitical.[36] The factual and fictional.

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2/on-the-origin-of-hack-and-yack-by-bethany-nowviskie/>]. See also Tara McPherson, "Theory/Practice: Lessons Learned from Feminist Film Studies," in: *The Routledge Companion to Media Studies and Digital Humanities*, ed. by Jentery Sayers, London / New York: Routledge, 2018, 9–17; Stephen Ramsay and Geoffrey Rockwell, "Developing Things: Notes toward an Epistemology of Building in the Digital Humanities," in: *Debates in the Digital Humanities*, ed. by Matthew K. Gold, Minneapolis: University of Minnesota Press, 2012, 75–84, online: <https://doi.org/10.5749/9781452963754>; Tanya E. Clement and Daniel Carter, "Connecting Theory and Practice in Digital Humanities Information Work," in: *Journal of the Association for Information Science and Technology* 68/6 (2017), 1385–1396, online: <https://doi.org/10.1002/asi.23732>; and Natalie Cecire, "Introduction: Theory and the Virtues of Digital Humanities," in: *Journal of Digital Humanities* 1/1 (2011), online: <http://journalofdigitalhumanities.org/1-1/introduction-theory-and-the-virtues-of-digital-humanities-by-natalia-cecire/> (accessed 12 January 2023).

**35** See, to start with, Joris van Zundert [et al.], "Cultures of Formalisation: Towards an Encounter between Humanities and Computing," in: *Understanding Digital Humanities*, ed. by David M. Berry, Basingstoke [et al.]: Palgrave Macmillan, 2012, 279–294; John Unsworth, "What is Humanities Computing and What is Not?" in: *Jahrbuch für Computerphilologie* 4 (2002), 71–84, online: <http://computerphilologie.digital-humanities.de/jg02/unsworth.html> (accessed 12 January 2023) [online reproduced without page numbers, for that reason hereafter in reference to said online version necessarily cited without page numbers and therefore as seemingly *passim* even in case of direct quotes]; and Paola Cotticelli-Kurras and Federico Giusfredi (Eds.), *Formal Representation and the Digital Humanities*, Newcastle upon Tyne: Cambridge Scholars Publishing, 2018.

**36** The digital humanities arguably operate in a politicized environment influenced by their intersection with the (high) technology industry. A small selection of references: Lisa Spiro, "'This Is Why We Fight': Defining the Values of the Digital Humanities," in: *Debates in the Digital Humanities*, ed. by Matthew K. Gold, Minneapolis: University of Minnesota Press, 2012, 16–35, online: <https://doi.org/10.5749/9781452963754>; Elizabeth Weed and Ellen Rooney (Eds.), *In the Shadows of the Digital Humanities* [special issue of *differences: A Journal of Feminist Cultural Studies* 25/1 (2014)]; Lindsay McKenzie, "Digital Humanities for Social Good," in: *Inside Higher Ed* (9 July 2018), online: <https://www.insidehighered.com/news/2018/07/09/when-digital-humanities-meets-activism> (accessed 12 January 2023); Stanley Fish, "Stop Trying to Sell the Humanities," in: *The Chronicle Review* (17 June 2018), online: <https://www.chronicle.com/article/stop-trying-to-sell-the-humanities/> (accessed 12 January 2023); Roopika Risam, "Decolonizing Digital Humanities in Theory and Practice," in: *The Routledge Companion to Media Studies and Digital Humanities*, ed. by Jentery Sayers, London / New York: Routledge, 2018, 78–86; Roopika Risam, *New Digital Worlds: Postcolonial Digital Humanities in Theory, Praxis, and Pedagogy*, Evanston, Illinois: Northwestern University Press, 2018; Mike Grimshaw, "Towards a Manifesto for a Critical Digital Humanities: Critiquing the Extractive Capitalism of Digital Society," in: *Palgrave Communications* 4/21 (2018), online: <https://doi.org/10.1057/s41599-018-0075-y>; Elizabeth Losh and Jacqueline Wernimont (Eds.), *Bodies of Information:*

"The factual and the fictional?" you might ask. "The modelled and the model," I would answer. Here, we can already sense that questions of reproduction and representation are closely entangled – that the matter of methodology strongly impacts the matter of epistemology (as it, presumably, always does; and vice versa). There are limits to what we can know, even if we cannot learn those quite as precisely as we would like, for we cannot know what we do not know; but we can know what we cannot do. Or so one would assume.

It is commonly stated that modelling *may* not only be at the centre of the digital humanities but that it *is* and that, indeed, no argument can be made that it should not be because it must be.[37] This imperative is premised on the "fundamental dependence of any computing system on an explicit, delimited conception of the world or 'model' of it."[38] Therefore, some might argue that there is no conflict to be had, or that the only conflict to be had is one of *matter*, rather than the *mode* of scholarship. A conflict suggests tension, a choice between different paths. In the digital humanities, it would appear that there is not so much a tension of this

*Intersectional Feminism and Digital Humanities*, Minneapolis: University of Minnesota Press, 2018; Barbara Bordalejo and Roopika Risam (Eds.), *Intersectionality in Digital Humanities* (Collection Development, Cultural Heritage, and Digital Humanities Series; vol. 4), York: Arc Humanities Press, 2019. See also Daniel Allington, Sarah Brouillette and David Golumbia, "Neoliberal Tools (And Archives): A Political History of Digital Humanities," in: *Los Angeles Review of Books* (1 May 2016), online: <https://lareviewofbooks.org/article/neoliberal-tools-archives-political-history-digital-humanities/> (accessed 12 January 2023), and the reply Juliana Spahr, Richard So and Andrew Piper, "Beyond Resistance: Towards a Future History of Digital Humanities," in: *Los Angeles Review of Books* (11 May 2016), online: <https://lareviewofbooks.org/article/beyond-resistance-towards-future-history-digital-humanities> (accessed 12 January 2023).

**37** This sentiment is widespread; by way of example, cf. Pierazzo 2016, 37; Elena Pierazzo, "How Subjective is Your Model?" in: *The Shape of Data in the Digital Humanities: Modeling Texts and Text-Based Resources*, ed. by Julia Flanders and Fotis Jannidis, London / New York: Routledge, 2018, 117–132, here 119; and C. M. Sperberg-McQueen, "Playing for Keeps: The Role of Modeling in the Humanities," in: *The Shape of Data in the Digital Humanities: Modeling Texts and Text-Based Resources*, ed. by Julia Flanders and Fotis Jannidis, London / New York: Routledge, 2018, 285–310, here 285.

**38** Willard McCarty, *Humanities Computing*, Basingstoke [et al.]: Palgrave Macmillan, 2005, 21.

kind but a tension of implementation; a chafing against a lack of choice, even within choices.

This leads us to a number of questions that are very difficult to answer, let alone to answer in any substantiated way. Do we discuss what we discuss in the digital humanities because we want to or because we have to (or feel that we have to)? Not that those would necessarily exclude each other. But: Can we do what we want to do if we have to? *Because* we have to? Has anyone in the digital humanities ever said 'I cannot and will not model this' rather than 'I can only model it like this'? That would seem like something worth considering and might, perhaps, best be left to the philosophers among us.

Due to the alleged importance of 'modelling' as a foundational principle for any and all activity in the digital humanities, we can suppose that contemplating the meaning and mechanism of modelling should be worthwhile on a micro level – how to implement a specific process of modelling in a specific circumstance of, in the case of computing, technological constraints – and on a macro level – how to understand something as a model to begin with. This, obviously, implies a reach so broad that it might encompass the entirety of the scientific (or 'scholarly') human project. It should come as no surprise, then, that an intent reading of the research literature beyond the confines of the digital humanities leads us to the fictionalism of a Hans Vaihinger as easily and as quickly as it surfaces the discourse that reverberated through the field of cybernetics in the 1960s and 1970s, particularly in Eastern Germany and the USSR.[39]

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[39] On the topic of modelling discourses in the GDR and USSR, see, to begin with, Karlis Podnieks, "Philosophy of Modeling: Neglected Pages of History," in: *Baltic Journal of Modern Computing* 6/3 (2018), 279–303, online: <https://doi.org/10.22364/bjmc.2018.6.3.05>. On Hans Vaihinger, a neo-Kantian philosopher, see Arthur Fine, "Fictionalism," in: *Midwest Studies in Philosophy* XVIII (1993), 1–18, and Carlo Gentili, "Kant, Nietzsche und die 'Philosophie des Als-Ob'," in: *Nietzscheforschung* 20/1 (2013), 103–116. Although the interest in Vaihinger has been subdued in German-language academia, several publications were dedicated to him and his work in the last decades. Most notable among those are Klaus Ceynowa, *Zwischen Pragmatismus und Fiktionalismus: Hans Vaihingers 'Philosophie des Als Ob'* (Epistemata: Reihe Philosophie; vol. 129), Würzburg: Königshausen & Neumann, 1993; Andrea Wels, *Die Fiktion des Begreifens und das Begreifen der Fiktion: Dimensionen und Defizite der Theorie der Fiktionen in Hans Vaihingers Philosophie des Als Ob* (Europäische Hochschulschriften:

The wide range of pre-digital literature on 'modelling', of which I have only indicated a narrow, Germanocentric selection, is rooted in the notion cited before, except that it goes deeper than that. It suggests a 'fundamental dependence' of any reasoning on a "conception of the world or 'model' of it."[40] One might argue that, regardless of the matter of computing, any scholarship cannot be about a thing-in-itself, to naïvely abuse the Kantian notion.[41] To describe something is to have observed it. To have observed it is to have processed it and through this process transformed it. Since our observation is all we can perceive, the existence of something beyond our observation is mostly suggested by the limitation of our individual point of view and our awareness of that due to the enrichment it experiences in the sharing of others' points of view; which we might also, in its collective communicative spirit, call *culture*.[42] One might even be tempted to think of Nietzsche and his *Genealogie der*

Reihe 20, Philosophie; vol. 539), Frankfurt am Main [et al.]: Peter Lang, 1997; and MATTHIAS NEUBER (Ed.), *Fiktion und Fiktionalismus: Beiträge zu Hans Vaihingers Philosophie des Als Ob* (Studien und Materialien zum Neukantianismus; vol. 33), Würzburg: Königshausen & Neumann, 2014.

**40** McCarty 2005, 21. Elena Pierazzo, in fact, shares a very similar sentiment when she states that "modeling is at the core of any critical and epistemological activity" (Pierazzo 2018, 119).

**41** For one of Kant's definitions of the concept, see IMMANUEL KANT, *Prolegomena zu einer jeden künftigen Metaphysik, die als Wissenschaft wird auftreten können*, Riga: Johann Friedrich Hartknoch, 1783, 104–105, § 32. For a discussion of Kant's inconsistent use of the term and the subsequent debates in the field of philosophy, see GEROLD PRAUSS, *Kant und das Problem der Dinge an sich* (Abhandlungen zur Philosophie, Psychologie und Pädagogik; vol. 90), Bonn: Bouvier, 1974; GEROLD PRAUSS, *Die Einheit von Subjekt und Objekt: Kants Probleme mit den Sachen selbst*, Freiburg / München: Karl Alber, 2015; and CORD FRIEBE, "Über einen Einwand gegen die Zwei-Aspekte-Interpretation von Kants Unterscheidung zwischen Erscheinung und Ding an sich," in: *Zeitschrift für philosophische Forschung* 61/2 (2007), 229–235. See also, more generally, NICHOLAS F. STANG, 'Kant's Transcendental Idealism,' in: *The Stanford Encyclopedia of Philosophy* (Winter 2022 edition), ed. by Edward N. Zalta and Uri Nodelman, online: <https://plato.stanford.edu/archives/win2022/entries/kant-transcendental-idealism/>.

**42** This calls the topic of *intersubjectivity* to mind and with it Carnap and Husserl, see HARALD A. WILTSCHE, "Models, Science, and Intersubjectivity," in: *Husserl's Phenomenology of Intersubjectivity: Historical Interpretations and Contemporary Applications*, ed. by Frode Kjosavik, Christian Beyer and Christel Fricke, London / New York: Routledge, 2019, 339–358, and FLORIAN FISCHER, "Carnap's Logic of Science and Reference to the Present Moment," in: *Kriterion: Journal of Philosophy* 30/2 (2016), 61–90. See also MARTIN KUSCH, *Knowledge by Agreement: The Programme of Communitarian Epistemology*, Oxford: Clarendon Press, 2002.

*Moral*, where he writes: "There is only a perspectival seeing, only a per-spectival 'gaining insight'; and the more affects we allow to speak on a thing, the more eyes, different eyes we use to observe the same thing, the more complete our 'concept' of that thing, our 'objectivity' will be."[43]

What then, is the difference between a concept and a model? One might say that the question of how to conceptualize something is the question of how to approach it. The question of how to model some-thing is the question of how to structure that approach. And the ques-tion of how to compute such a model is the question of how to translate its structures into computable structures. This does not quite, however, illumine what the starting and end points are, nor does it help us under-stand where and how we might intervene in these processes.

I want to return to the *fact* vs. *fiction* distinction for a brief moment as it is not one that we see very often in the digital humanities; and this despite the fact that we might refer to it as the 'original' framing device for modelling discourses in the early 20th century. Take the following quote by H. L. Mencken, for example:

> The human mind, at its present stage of develop-ment, cannot function without the aid of fictions, but neither can it function without the aid of facts—save, perhaps, when it is housed in the skull of a uni-versity professor of philosophy.[44]

This barbed remark, made in 1924, unwittingly hints at a central issue. In his review of Hans Vaihinger's *The Philosophy of 'As If'*, Mencken

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**43** Friedrich Nietzsche, *Zur Genealogie der Moral: Eine Streitschrift*, Leipzig: Nau-mann, 1887, cited from the *Digitale Kritische Gesamtausgabe* (eKGWB), published on the basis of the *Kritische Gesamtausgabe Werke*, ed. by Giorgio Colli and Mazzino Montinari, Berlin / New York: De Gruyter, 1967– and the *Nietzsche Briefwechsel Kri-tische Gesamtausgabe*, ed. by Paolo D'Iorio, Berlin / New York: De Gruyter, 1975–, 2009–, GM-III-12, online: <http://www.nietzschesource.org/#eKGWB/GM-III-12> (accessed 12 January 2023), original: "Es giebt n u r ein perspektivisches Sehen, n u r ein perspektivisches ‚Erkennen'; und je m e h r Affekte wir über eine Sache zu Worte kom-men lassen, je m e h r Augen, verschiedne Augen wir uns für dieselbe Sache einzusetzen wissen, um so vollständiger wird unser ‚Begriff' dieser Sache, unsre ‚Objektivität' sein.")
**44** H. L. Mencken, "Philosophers as Liars," review, in: *The American Mercury* (Octo-ber 1924), 253–255, here 255. H. L. Mencken (1880–1956) was an American journalist and cultural critic known for his acerbic and controversial remarks.

accused the neo-Kantian philosopher of stating the obvious which is – as Mencken puts it – that "[m]an can only think in logical patterns, and when there is a vacant space he must fill it as best he may, or stop thinking altogether."[45] Mencken was not alone in his criticism. The philosopher of science Arthur Fine has likened the response Vaihinger's work provoked in the 1920s to the response Thomas Kuhn's work provoked in the 1960s and 1970s,[46] the difference being that Kuhn is still commonly cited whereas Vaihinger's reception declined after the Second World War.[47] The fact that he introduced the term 'logical positivism' – which was later appropriated by the *Wiener Kreis* despite their overall dismissal of his work – is still little more than a footnote and often not even elevated

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[45] Ibid., 254.

[46] Fine 1993, 4. Arthur Fine can be credited with single-handedly reviving interest in Vaihinger's philosophy, at least in the Anglophone reception, cf. Mauricio Suárez, "Fictions in Scientific Practice," in: *Fictions in Science: Philosophical Essays on Modeling and Idealization*, ed. by Mauricio Suárez, London: Routledge, 2009, 3–18, here 4.

[47] Cf. ibid. Reasons for the decline may already be found in the 1930s: Not only did Vaihinger himself die in 1933, the *Kant-Gesellschaft* that he had founded suffered from significant losses of membership during the NS rule, due to forced retirements and emigration of its Jewish members (see, for example, the biography of Arthur Liebert, a philosopher who headed the *Kant-Gesellschaft* for many years and was forced to emigrate in 1933, cf. Günther Wirth, *Auf dem „Turnierplatz" der geistigen Auseinandersetzungen: Arthur Liebert und die Kantgesellschaft (1918–1948/49)*, Ludwigsfelde: Ludwigsfelder Verlagshaus, 2004; for a quick overview, see 13–17; Liebert was also, I might mention here, a student of Wilhelm Dilthey who is of some importance to the history and theory of the German humanities). The *Kant-Gesellschaft* was finally dissolved in 1938, cf. ibid. See also George Leaman and Gerd Simon, "Die Kant-Studien im Dritten Reich," in: *Kant-Studien* 85/4 (1994), 443–469. The following is speculative but it stands to reason that, aside from "the intellectual sea change that followed the war and restructured the philosophical canon" (Fine 1993, 4), the political dissolvement of the institutional legacy of Vaihinger and the persecution of his colleagues and acquaintances may have contributed to the waning reception of his work thereafter. We should also note, however, that a cursory research produces post-war references to Vaihinger in contexts which Fine seems to preclude by stating quite strongly that "[e]xcept in discussions of legal philosophy, Vaihinger did not survive the intellectual sea change" (Fine 1993, 4). One article that would belie this statement is Eva Schaper, "The Kantian Thing-in-Itself as a Philosophical Fiction," in: *The Philosophical Quarterly* 16/64 (1966), 233–243; although Schaper does not discuss Vaihinger extensively, she is well-familiar with his work and uses it as a starting point for her own considerations. While it certainly appears to be true that Vaihinger's reception declined sharply from the 1940s onwards, his obscurity does not seem to have been all-encompassing.

to that level of prominence.[48] But his philosophy of 'useful fictions' is not without its relevance today, considering Fine's assessment:

> For the dominant self-conception of postwar science has been that of science as the builder of useful models. In our century Vaihinger was surely the earliest and most enthusiastic proponent of this conception, the preeminent twentieth-century philosopher of modeling.[49]

Interestingly enough, Vaihinger, who did not speak of 'models' himself, was already credited with laying this groundwork in the 1950s, even if his overall influence had diminished by then.[50]

Vaihinger's philosophy of as-if is particularly interesting since many of the conflicts sketched so far, including the *Hamburger Faksimile-Streit*, would seem to be contained in those two little words. To sample but one part of Vaihinger's writing which confirms Fine's assessment that it is remarkably close to post-war discourses on modelling: While

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**48** Vaihinger used several terms such as *logischer Positivismus* and *idealistischer Positivismus* (cf. Fine 1993, 2–3). Despite the renewed interest in Vaihinger and fictionalism in the English-speaking world, due to Fine's article, Vaihinger's relation to the *Wiener Kreis* has not been subject to study, as far as I can tell. See, for example, Friedrich Stadler, *Der Wiener Kreis: Ursprung, Entwicklung und Wirkung des Logischen Empirismus im Kontext*, Cham: Springer, 2015, in which Vaihinger is only mentioned twice – once on page XXV of the prologue and once on page 61. Both mentions concern the publication of the journal *Annalen der Philosophie*. As Fine notes, the logical positivists themselves rarely commented on Vaihinger and if they did, they made "curt and disparaging references to Vaihinger's central ideas" (Fine 1993, 3). An example for this can be found in Moritz Schlick's *Positivismus und Realismus* (1932), in which he mentions Vaihinger in passing: "[…] und wenn sein [Ernst Laas'] Schüler Hans Vaihinger seiner ,Philosophie des Als Ob' den Untertitel eines ,idealistischen Positivismus' gab, so ist das nur einer von den Widersprüchen, an denen dieses Werk krankt." (Moritz Schlick, "Positivismus und Realismus (1932)," in: *Wiener Kreis: Texte zur wissenschaftlichen Weltauffassung von Rudolf Carnap, Otto Neurath, Moritz Schlick, Philipp Frank, Hans Hahn, Karl Menger, Edgar Zilsel und Gustav Bergmann*, ed. by Michael Stöltzner and Thomas Uebel, Hamburg: Felix Meiner, 2006, 187–222, here 192).
**49** Fine 1993, 16.
**50** Cf. Paul Meadows, "Models, Systems and Science," in: *American Sociological Review* 22/1 (1957), 3–9, here 8: "It was one of the many services performed by Vaihinger to dramatize for contemporary scientific theory the roles that heuristic devices—constructs, fictions, in other words, models—play as members of 'the system of logical sciences'."

he does not speak of 'models' but rather of 'fictions', he defines a fiction as a "scientific fabrication for practical purposes."[51] And he goes on to differentiate between a hypothesis and a fiction in the following way:

> While every hypothesis seeks to be an adequate expression of a yet unknown reality and aims to represent that objective reality accurately, the fiction is formulated in the knowledge that it is an inadequate, subjective, figurative way of imagining that inherently cannot converge with reality and that can therefore not be verified afterwards, as one hopes to do with a hypothesis.[52]

If we understand models – which is also to say, the representations of cultural heritage that they mould 'in their image' – to be fictions whose goal it is to be useful for a specific purpose, not *true* (which is not the same as to say that they are false), then that changes the entire conversation. It would be interesting to explore Vaihinger's work in more depth, especially since we do not find any overt investigation of or engagement with this kind of literature in digital humanities scholarship.[53]

Since the digital humanities are set apart by the necessity of confronting questions that, in other disciplines, are only addressed at the discretion of those with a vested interest in epistemology, one would think that they would have, at this point, produced a considerable body of research documenting their efforts in that regard. This is not so.[54] It would

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[51] Hans Vaihinger, *Die Philosophie des Als Ob: System der theoretischen, praktischen und religiösen Fiktionen der Menschheit auf Grund eines idealistischen Positivismus – Mit einem Anhang über Kant und Nietzsche*, Berlin: Reuther & Reichard, 1911, 65, original (whole sentence): "Man muss nur immer mit ‚Fiktion' den fest bestimmten Begriff einer wissenschaftlichen Erdichtung zu praktischen Zwecken verbinden."

[52] Ibid., 606, original: "Während jede Hypothese ein adäquater Ausdruck der noch unbekannten Wirklichkeit sein, und diese objektive Wirklichkeit zutreffend abbilden will, wird die Fiktion mit dem Bewusstsein aufgestellt, dass sie eine inadäquate, subjektive, bildliche Vorstellungsweise ist, deren Zusammentreffen mit der Wirklichkeit von vornherein ausgeschlossen ist, und die daher auch nicht hintennach, wie man das bei der Hypothese hofft, verifiziert werden kann."

[53] It should be noted that Willard McCarty references Vaihinger briefly in McCarty 2005, 48. It is the only reference to Vaihinger in a digital humanities context that I am aware of, which is not to say that it is necessarily the only one.

[54] Any observation of an imbalance between the practical side of the digital humanities and the theoretical side of the digital humanities is necessarily biased in itself because it

be too strong a statement to call the neglect of meeting this demand on a level of note a collective failure but it might be fair to diagnose it as one of the root causes of what Julia Flanders has termed the 'productive unease' within the field.[55]

Pointing this out runs the risk of stating the obvious – but even though the statement might be readily apparent, the extent of it has yet to be fully appreciated. One reason for this might lie in the perception of the intents and purposes of the field. This perception is often bound to broad keywords such as statistics, big data, machine translation. It is easy to be overwhelmed by the implications of such words or by the research literature that they may produce within the digital humanities and on the edges of the digital humanities.[56]

There is another view of the field, a view wherein scholarship leans heavily towards expressing knowledge from the humanities in a way that can be computed rather than computing something that has not been

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judges that perceived imbalance against a supposedly possible state of balance; more than that, it presumes to know what such a state might be and even *should* be. We must be aware that the assessment of such situations is always subjective but in this case, it might be said to be substantiated by the infrastructural reality of the field and the work done within. The comparative lack of substantial theoretical writings in the field of digital humanities not only makes sense in that context – it is difficult to imagine how it could be any different. For a long time, the main activities in the field, at least in a German context, have been supported through the external funding of project-related work with the goal of producing a specific result (e.g. the digitization of a corpus, the edition of a collection of charters, the virtual reconstruction of a historical monument etc. pp.). This must be taken into consideration. Reflection takes time and time costs money.

**55** See Julia Flanders, "The Productive Unease of 21st-Century Digital Scholarship," in: *Digital Humanities Quarterly* 3/3 (2009), online: <http://www.digitalhumanities.org/dhq/vol/3/3/000055/000055.html> (accessed 12 January 2023); although this unease, as Flanders tells it, is a result of the critical engagement with methods, tools, and epistemology in the digital humanities. Both might be true: That this unease is the result of a critical engagement but that it has also not been 'solved' yet through critical engagement. The existence of this unease might also be overstated.

**56** Interdisciplinary interviews conducted for the *Knowledge Complexity* project have shown that there is a 'gulf of epistemic cultures' and revealed some of the terminological tensions underlying the topics discussed so far; see Jennifer Edmond and Jörg Lehmann, "Digital Humanities, Knowledge Complexity, and the Five 'Aporias' of Digital Research," in: *Digital Scholarship in the Humanities* 36 suppl. 2 (2021), ii95–ii108, online: <https://doi.org/10.1093/llc/fqab031>. On the topic of big data, see also, by the same authors, Jennifer Edmond [et al.] (Eds.), *The Trouble With Big Data: How Datafication Displaces Cultural Practices*, London [et al.]: Bloomsbury Academic, 2022, online: <https://doi.org/10.5040/9781350239654>.

expressed. I would not want to suggest that this marks a clear division between automated and non-automated processes: In fact, automation has nothing to do with it, principally, since the expression of knowledge only requires that there is some type of knowledge or information to express, regardless of how it was acquired in the first place. The topic of 'knowledge' within the humanities is vast, even if the debatable distinction between data, information, and knowledge as well as other definitional difficulties are disregarded.[57] One explanation for the complexity of knowledge in the humanities could be that that which is of interest to humanists is buried under deep layers of ambiguity because human life is conceived by human thought and perceived in human culture, neither of which are precise. In this view, humanistic scholarship shifts these layers to bring different dimensions to light and this process is called 'interpretation'. But while this involves favouring one point of view over another, it is the collection of all that best approximates reality, if we take reality to be something that exists outside of ourselves as well as inside of ourselves; something material that can be manipulated in its meaning (or rather in the meaning it is said to have) but not in its meaningfulness, due to a purpose imparted to it by its mere physical existence and finiteness rather than by human perception. This returns us to our earlier point of departure: If modelling something means to structure it and if computing a model means to translate its structures into computable structures, then we can already sense that these processes are accompanied by a 'loss' – a loss of information, if you will, although much was also lost when we extracted texts from manuscripts and printed them in books; yet barely anyone framed it that way.

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**57** For a philosophical viewpoint on 'knowledge' in the humanities, see JOSEPH MARG-OLIS, "Knowledge in the Humanities and Social Sciences," in: *Handbook of Epistemology*, ed. by Ilkka Niiniluoto, Matti Sintonen and Jan Woleński, Dordrecht: Springer, 2004, 607–645, online: <https://doi.org/10.1007/978-1-4020-1986-9_17>. On the topic of the knowledge pyramids often endorsed in digital humanities contexts, see MARTIN FRICKÉ, "The Knowledge Pyramid: A Critique of the DIKW Hierarchy," in: *Journal of Information Science* 35/2 (2009), 131–142. For a more general overview of the field of knowledge management (KM), see SUE NEWELL, "Managing Knowledge and Managing Knowledge Work: What We Know and What the Future Holds," in: *Journal of Information Technology* 30/1 (2015), 1–17.

If we take scholarship in the humanities to be the human perception of human perception (where it is a reflection reliant on so-called 'cultural heritage'), this does not devalue findings but it does complicate matters by at least twice removing our description of a source from the source, depending on what we take the source to be, with sometimes nary an intervention along the way to corroborate our findings through means of external observation.[58]

It seems that in order to reclaim some of the ambiguity that is lost in the process of perception, scholars in the humanities tend to rely on the ambiguity of expression inherent in the natural language with which scholarship is commonly disseminated. For critics of the humanities, this ambivalence, capable of capturing more complex realities than are strictly evidentiary but also capable of inferring more than can be reasonably supported through argument, undermines their credibility as academic disciplines and even some humanists argue that it points towards the need for a change in status: Hans Ulrich Gumbrecht's promotion of the concept of 'contemplation' comes to mind.[59]

The digital humanities serve as a crucible in these debates, inadvertently or not, because computing brings two aspects to the fore that concern these questions: The first aspect is the aspect of external observation which primarily pertains to computing as a way of analysis that ought to generate 'knowledge' or whatever is taken to be knowledge; here, the computer is viewed as an externalising, potentially even objectifying

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**58** Means of external observation (or rather 'externalizing' since it does not occur of its own accord) would be, for example, the use of radiocarbon dating to date a historical object beyond educated guesswork, which is not to say that educated guesswork cannot be accurate in itself or even more accurate and perceptive than such an 'externalizing' way of corroboration; on the topic of radiocarbon dating, see R. E. Taylor and Ofer Bar-Yosef, *Radiocarbon Dating: An Archaeological Perspective*, London / New York: Routledge, ²2014.

**59** Cf. Hans Ulrich Gumbrecht, "Die ewige Krise der Geisteswissenschaften – und wo ist ein Ende in Sicht?" in: *Beiträge zur Hochschulpolitik* 4 (2015), 3–28, particularly 25f. See also Hans Ulrich Gumbrecht, "Contemplation – as an End of the Humanities," keynote at the conference *The Ends of the Humanities*, University of Luxembourg, 10–13 September 2017, and the conversation in the *Talk! Humanities* series, organised by the University of Luxemburg, episode 1 (13 August 2019), <https://www.youtube.com/watch?v=Ms8zgavXTp8> (video recording, accessed 1 September 2023); this interview includes a section about the digital humanities, starting at minute 16:09.

factor – although the results are still subject to human interpretation. The second aspect is the aspect of explicit expression and that is of particular interest here.

For something to be machine-readable, it needs to be expressed in a formal language which "puts humanities computing, or rather the computing humanist, in the position of having to do two things that mostly, in the humanities, we don't do: provide unambiguous expressions of ideas, and provide them according to stated rules."[60] This is achieved through the use of text encoding in general and the creation of ontologies, taxonomies, schemas, controlled vocabularies, and so on, specifically.[61] But what does this mean? It means that assertions about a humanistic object of study such as a painting, a text, a piece of music, an event in history, et cetera, need to be *fixed;* and they need to be fixed in a different way than would occur if a scholar wrote about these items or even just a greater movement or idea that they belong to, or are assigned to belong to, in an article or monograph. While this fixation does not make an assertion any more or less true or any more or less ever-lasting, it requires a commitment to an unambiguous statement, as John Unsworth pointed out.[62] A lack of ambiguity goes hand in hand with a need for precision. The humanities, however, are the 'inexact sciences', as Jacob Grimm referred to them.[63] This provides obstacles on a purely practical level when it comes, for example, to the heterogeneity of historical data

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**60** Unsworth 2002.
**61** See, to start with, Francesca Tomasi, "Modelling in the Digital Humanities: Conceptual Data Models and Knowledge Organization in the Cultural Heritage Domain," in: *Historical Social Research* suppl. 31 (2018), 170–179, online: <https://doi.org/10.12759/hsr.suppl.31.2018.170-179>.
**62** Cf. Unsworth 2002.
**63** Not in a negative manner, however. If anything, he meant to emphasize the importance of the humanities because they are, in his view, concerned with matters 'closer to the heart' (indeed, he argues for them with the liberal patriotism of his time in mind), cf. Jacob Grimm, "Über den Werth der ungenauen Wissenschaften," in: *Texte zur Theorie der Geisteswissenschaften*, ed. by Athena Panteos and Tim Rojek, Stuttgart: Reclam, 2016, 58–63 [reprint of *Kleinere Schriften VII: Recensionen und vermischte Aufsätze*, Hildesheim [et al.]: Olms, 1966, 563–566 [in itself reprint of Berlin 1884]; originally speech held in Frankfurt, 1846].

pertaining to locations and dates or the in-depth markup of complex textual phenomena.[64]

It might be said that in the humanities, some things are better known than others. Some overlap. Some contradict. Some are supported by a wealth of source material. Some are pure conjecture. But few of them are formalized, be it in a classification system or otherwise – and if they are, their logic may be inferred by a human observer only because our mind can rationalize incongruities or, at the very least, bypass them. That is not the same as a half-formalized system withstanding the much less flexible scrutiny of a machine (by which I mean a computational processing of information).

The cognitive scientist David Kirsh has emphasized that "computation is a process of making *ex*plicit, information that was *im*plicit."[65] The computation of humanistic information could therefore be helped along by making it more explicit in the first place. What is not as easily accomplished, however, is making *exact*, information that was inexact. There are good reasons why an information in the humanities may be inexact. It might be as simple as conflicting reports over when something is said to have occurred in history, or what is said to have occurred, or who is said to have done this and that, or who is suspected to have done this and that. Similarly, if a scholar reads a medieval manuscript, they might encounter corruptions, meaning that parts of the text are not intelligible anymore due to damage to the physical object or due to the scribe; it might be possible, however, to make an educated guess as to what it could have said and different editors might guess differently, depending

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**64** The challenges of comprehending complex textual phenomena are highlighted, for example, in Dirk van Hulle, *Textual Awareness: A Genetic Study of Late Manuscripts by Joyce, Proust, and Mann*, Ann Arbor: University of Michigan Press, 2004. As for the heterogeneity of historical data, see Manfred Thaller, "Ungefähre Exaktheit: Theoretische Grundlagen und praktische Möglichkeiten einer Formulierung historischer Quellen als Produkte ‚unscharfer' Systeme," in: *Historical Social Research* suppl. 29 (2017), 138–159, online: <https://doi.org/10.12759/hsr.suppl.29.2017.138-159> [originally published in: *Neue Ansätze in der Geschichtswissenschaft: Eine philosophisch-historische Tagung* (Conceptus-Studien; vol. 1), ed. by Herta Nagl-Docekal and Franz Wimmer, Wien: VWGÖ, 1984, 77–100].
**65** David Kirsh, "When is Information Explicitly Represented?" in: *The Vancouver Studies in Cognitive Science* (1990), 340–365, here 340.

on their own personal familiarity and experience with the material and similar materials. One might also simply take a look at a painting by Jheronimus Bosch and soon realize the futility of hoping to accurately describe it in all of its minutiae in a way that another scholar would unwittingly reproduce exactly the same (see **FIG. 2**).[66] This is our first hint that parsing semantic complexity cannot be viewed independently from the media and language in which it is communicated or in which it has, to put it differently, survived and come down to us, to be decoded, in the approach of some, or to be interpreted, in the approach of others, for no other purpose than the understanding of cultural expression itself or for the aggregation of a web of data, information, and knowledge that ought to signify a beyond; beyond the single mind (and it has to be noted that the digital humanities would seem to think that *decoding* and *interpreting* are synonymous although the former involves a claim to a level of description that is intermediate – between the manifested and the understood, in the sense of extracted rather than abstracted).

(In-)exactness of expression is not a problem in itself. It is the arbitrary distribution of exactness over a corpus of knowledge that poses the problem, given that all scholarship in the humanities relies, to a certain degree, on comparative study, viz. one that *relates* information. (And it is, arguably, all the better, the better it is at performing this task.) This issue goes far beyond the cataloguing of documents. As hinted, what is established as known – or unknown – in the humanities is very much bound to the scholar who is doing the establishing; to the sharpness of their mind; to the precision of their language; to the debate that follows.[67] It is, in short, a matter of argument: the provenance of argument and the persuasion of argument.

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[66] There is an interactive online guide available to explore Bosch's painting *The Garden of Earthly Delights* (c. 1490–1510) but the annotation that it offers is centred around thematic highlights and not an attempt at a formal description; see <https://tuinderlusten-jheronimusbosch.ntr.nl/en> (accessed 12 January 2023).

[67] On the topic of humanities scholarship being sublimated not merely (or perhaps not even primarily) through logically stringent argumentation but rather through social and rhetorical strategies, see RALF KLAUSNITZER, CARLOS SPOERHASE and DIRK WERLE (Eds.), *Ethos und Pathos der Geisteswissenschaften: Konfigurationen der wissenschaftlichen Persona seit 1750* (Historia Hermeneutica. Series Studia; vol. 12), Berlin / Boston: De Gruyter, 2015. Different disciplines and different traditions of different disciplines

Although it is not unfathomable that concerns over asserting assumptions might be voiced in the digital humanities, their implication carries little weight in practice. It cannot, after all, be helped that humanistic objects of study are being digitized and that their description, even if just at its most basic level, which might be the level of bibliographical metadata, is something that is asked of scholars – and those working at cultural heritage institutions.[68] (Indeed, even if such digitization efforts were to cease tomorrow, it would take a large-scale catastrophe to erase everything already digitized so far; and in such an event, it seems likely humanity would be erased along with it.)

The need for 'knowledge' from the humanities to be expressed formally is necessitated by the ongoing digitization of materials and the desire to make them searchable, accessible, and analysable in the spirit of the *semantic web* notion,[69] and the need for this formal expression of knowledge or information to be modelled is necessitated by the nature of the 'computer' and the desire to create data sets that are well-formed, interoperable, and informative with as accurate an architecture and structure as can be mustered.

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in different countries will, of course, differ in their criteria for what is entered 'into' the academic conversation and what is, conversely, deemed unscholarly and discarded; the first condition for this usually being that the scholar should occupy an academic position at a university or a research institute (and this is, of course, by no means restricted to the humanities). However, if we take a very broad view, it is rather noticeable how in the Anglophone discourse about the purpose of the humanities, there is often an argument that they teach 'critical thinking skills' which one presumes to then also be part of their methodology – for how else to teach them? In the US context, this is evidently linked to a derision of 'critical theory', cf. Paul Jay, *The Humanities 'Crisis' and the Future of Literary Studies*, Basingstoke [et al.]: Palgrave Macmillan, 2014, 24f. See also, merely by way of example, articles such as Patricia Cohen, "In Tough Times, the Humanities Must Justify Their Worth," in: *New York Times* (24 February 2009), online: <https://www.nytimes.com/2009/02/25/books/25human.html> (accessed 12 January 2023).

**68** On the topic of cultural heritage digitization, see Caroline Y. Robertson-von Trotha and Ralf H. Schneider (Eds.), *Digitales Kulturerbe: Bewahrung und Zugänglichkeit in der wissenschaftlichen Praxis*, Karlsruhe: KIT Scientific Publishing, 2015.

**69** See, for the origin of the notion, Tim Berners-Lee, James Hendler and Ora Lassila, "The Semantic Web," in: *Scientific American* (17 May 2001), online: <https://www.scientificamerican.com/article/the-semantic-web/> (accessed 12 January 2023). See also Grigoris Antoniou, Paul Groth, Frank van Harmelen and Rinke Hoekstra, *A Semantic Web Primer*, Cambridge, Massachusetts / London: MIT Press, ³2012 [originally published 2004].

**FIG. 2:** Detail from *De tuin der lusten* by Jheronimus Bosch (c. 1490–1500), Museo del Prado, Madrid, <https://commons.wikimedia.org/wiki/File:The_Garden_of_earthly_delights.jpg> (Wikimedia Commons, PD).

As a discipline seemingly driven by the desire for innovation, this narrative casts the digital humanities in a particular light, and such a sober framing is not the only way to imagine their purpose, especially once you move away from methodology and towards the political and social. But the real objections might come when the discussion shifts towards questioning the academic influences that the digital humanities inherit or, alternatively, exert. Is it, in itself, sufficient to implement something to the best of the current knowledge and abilities, framed in terms borrowed from computer science (in turn borrowed from philosophy, e.g. 'ontology')?[70] Or might it be useful to turn inwards, towards the humanities and their disciplinary coming of age? What is it that we do in the humanities, exactly? And what is it that we wish to achieve? These questions are rhetorical: Neither is there a common global goal nor history on which to build it. But there are histories and there are commonalities we could draw out further.

Counterintuitively, perhaps, given the impetus to move forward, another look into the past might be in order.

## C.
### GRIMM'S EULOGY ON LACHMANN

When Karl Lachmann died in 1851, his friend and fellow philologist Jacob Grimm delivered a eulogy at the *Königliche Akademie der Wissenschaften zu Berlin*. Instead of honouring the etiquette of the occasion, he launched into a candid examination of the different approaches to scholarship between the deceased and himself – a denouncement that has been described as an "attack."[71] Grimm was well-aware of the effect, acknowledging that if Lachmann had been alive and standing behind

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**70** Cf. Barry Smith, "The Relevance of Philosophical Ontology to Information and Computer Science," in: *Philosophy, Computing and Information Science*, ed. by Ruth Hagengruber and Uwe Riss, London / New York: Routledge, 2014, 75–83.
**71** Pier Carlo Bontempelli, *Knowledge, Power, and Discipline: German Studies and National Identity* (Contradictions; vol. 19), transl. by Gabriele Pool, Minneapolis: University of Minnesota Press, 2004, 16.

him, the man might have shaken his head in disapproval.[72] At a later point in the speech, when discussing Lachmann's work – partly with praise, partly in a critical manner –, Grimm inserted: "Why should it not be said here?"[73]

What he was saying was emblematic for the process that the new academic disciplines forming in Europe at that time were going through, in this case the field of *Germanistik* (German studies). In the research literature, this has been described retrospectively in adventurous, if not quasi-colonial, terms reminiscent of conquering lands – disciplines are metaphorically presented as unmapped stretches of nature, *terrae incognitae*, while early scholars are cast as explorers, some in search of whatever they might find, others with the intent of cultivating a garden; a duality marked by unruliness on the one and order on the other side; the joy of discovery set against the will to gain control.[74] In the field of geography, for example, this 'polarity' was supposedly embodied by Alexander von Humboldt and Carl Ritter.[75]

In the field of *Germanistik*, we may want to leave this kind of narrative behind but still recognize that there was a certain tension which

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**72** Jacob Grimm, "Rede auf Lachmann," in: *Kleinere Schriften* (vol. 1: Reden und Abhandlungen), ed. by Karl Müllenhoff, Berlin: Dümmler, 1864, 145–162, here 146 [originally printed in *Abhandlungen der Königlichen Akademie der Wissenschaften zu Berlin. Aus dem Jahre 1851*, Berlin: Druckerei der Königlichen Akademie der Wissenschaften, 1852, I–XVI]. Paraphrased, original: "[…] stände er hinter mir, er würde vielleicht einigemal den kopf schütteln, nicht von meiner rede sich abwenden." [The lack of capitalization is in the original.]
**73** Grimm 1864, 157, original: "[…] warum soll es hier nicht gesagt werden?"
**74** Indeed, Grimm and Lachmann are usually presented as the dichotomy between a 'wild philology' by Grimm and a 'domesticated philology' by Lachmann, cf. Ulrich Wyss, *Die wilde Philologie: Jacob Grimm und der Historismus*, München: C.H. Beck, 1979. See also Bontempelli 2004, 17. On the prevalent narrative of a Grimm-Lachmann polarity, see also Johanna Wolf, *Kontinuität und Wandel der Philologien: Textarchäologische Studien zur Entstehung der Romanischen Philologie im 19. Jahrhundert* (Romanica Monacensia), Tübingen: Narr, 2012, 93.
**75** For the comparison between the situation of Ritter-Humboldt and Lachmann-Grimm cf. Harald Weigel, *„Nur was du nie gesehn wird ewig dauern": Carl Lachmann und die Entstehung der wissenschaftlichen Edition*, Freiburg im Breisgau: Rombach, 1989, 27. For more information on Ritter vs. Humboldt and the alleged polarity of their relationship, see Hanno Beck, "Carl Ritter und Alexander von Humboldt – eine Polarität," in: *Carl Ritter – Geltung und Deutung: Beiträge des Symposiums anläßlich der Wiederkehr des 200. Geburtstages von Carl Ritter November 1979 in Berlin (West)*, ed. by Karl Lenz, Berlin: Reimer, 1981, 93–100.

was exemplified by Jacob Grimm and Karl Lachmann. Although both were disparate in their intentions to some degree, they are regarded as the founding fathers of the discipline to this day, together with Jacob's brother Wilhelm Grimm and Georg Friedrich Benecke.[76] The Grimm brothers are still widely known to the public for their collection of folklore and to academic audiences for their linguistic achievements[77] and Lachmann, while unknown to the public, remains a household name in academic circles concerned with scholarly editing.[78] His strict approach prevailed[79] and helped transform the *Germanistik* into a "true discipline"[80] – or so the story goes. This, however, came at a price; the price of selection.

As Michel Foucault puts it:

> That the amateur scholar ceased to exist in the eighteenth and nineteenth centuries is a well-known fact. So the university has a selective role: it selects knowledges. Its role is to distinguish between qualitative and quantitative levels of knowledge, and to distribute knowledges accordingly. […] Its role is to homogenize knowledges by establishing a sort of

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**76** See Christoph König, Hans-Harald Müller and Werner Röcke (Eds.), *Wissenschaftsgeschichte der Germanistik in Porträts*, Berlin / Boston: De Gruyter, 2012; see in particular the first three contributions about Benecke, Grimm, and Lachmann, 1–32.
**77** See Konrad Koerner, "Jacob Grimm's Place in the Foundation of Linguistics as a Science," in: *Word* 39/1 (1988), 1–20.
**78** Cf. off-hand references such as in the following conference report where there is mention of the "historical development of editorial theory from Lachmann up to the present day" (Harmut Beyer, Inga Hanna Ralle and Timo Steyer, "Digitale Metamorphose: Digital Humanities und Editionswissenschaft. Tagung an der Herzog August Bibliothek Wolfenbüttel, 2.–4. November 2015," in: *editio* 30/1 (2016), 222–228, here 223, online: <https://doi.org/10.1515/editio-2016-0014>, original: "historische Entwicklung der Editionswissenschaft von Lachmann bis heute"). And of course there are many more extended references to and discussions of Lachmann in literature about scholarly editing. This is merely to illustrate the casual *Selbstverständlichkeit* with which Lachmann is referred to as the origin of textual scholarship.
**79** It has come under criticism since its inception, most notably from the *New Philology* movement, but is still remarkably present in its impact. For an evaluation of Lachmann's legacy, see Eberhard Güting, "Die Internationalität der neutestamentlichen Textkritik zwischen Praxis und Theorie seit Karl Lachmann," in: *Internationalität und Interdisziplinarität der Editionswissenschaft* (editio / Beihefte; vol. 38), ed. by Michael Stolz and Yen-Chun Chen, Berlin / Boston: De Gruyter, 2014, 169–178, online: <https://doi.org/10.1515/9783110367317.169>.
**80** Bontempelli 2004, 19.

scientific community with a recognized status; its role is to organize a consensus.[81]

Grimm was not an amateur but the purpose of his scholarship was intricately linked to his political activism.[82] Lachmann, on the other hand, was, for all intents and purposes, only interested in what he saw on the pages of the manuscripts that he was studying. He was carefully meticulous, one might even say clinical, in his editorial choices when assessing the handwritten transmission of ancient, medieval, and early modern texts; excising what he perceived to be errors, normalizing spelling, purging 'flaws' in an attempt to arrive at the 'pure' and ideal archetypical text that the author had presumably intended – as divined by the editor, reinforced by his authority.[83] Where Grimm sought to capture the 'wild' and 'romantic' nature of a national past he wanted to see established in a unified, liberal nation state, as the common notion would have it, Lachmann sought to establish definitive readings of texts, no more, no less.[84]

In his eulogy, Grimm described their difference as the difference between two types of philologists: "those who pursue words for the sake of a matter [and] those whose pursue a matter for the sake of the words."[85]

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**81** Michel Foucault, *"Society Must Be Defended": Lectures at the Collège de France, 1975-1976*, transl. by David Macey, ed. by Mauro Bertani and Alessandro Fontana, New York: Picador, 2003, 183.

**82** He was part of the progressive, liberal-nationalist movement of the *Vormärz* and most notably involved in the protest of the *Göttinger Sieben* as well as the work of the *Frankfurt Parliament* of which he was a member in 1848; cf. Horst Brunner, "Jacob Grimm (1785–1863)," in: *Wissenschaftsgeschichte der Germanistik in Porträts*, ed. by Christoph König, Hans-Harald Müller and Werner Röcke, Berlin / Boston: De Gruyter, 2012, 11–19.

**83** This is, of course, a simplified account. For more detailed information on Lachmann's method and how he developed it, see Sebastiano Timpanaro, *The Genesis of Lachmann's Method*, transl. and ed. by Glenn W. Most, Chicago / London: University of Chicago Press, 2005 [originally published as *La genesi del metodo del Lachmann*, Firenze: Le Monnier, 1963].

**84** This is not to say that Grimm was not interested in the *ächte lesart des gedichts* – the 'true reading of a poem' – because he very much was; the differences between Grimm and Lachmann appear more nuanced in retrospect than they may have done at the time; cf. Bein 2010, 72f.

**85** Grimm 1864, 150, original: "Man kann alle philologen, die es zu etwas gebracht haben, in solche theilen, welche die worte um der sachen, oder die sachen um der worte willen treiben."

Grimm counted himself among the former and Lachmann among the latter.[86]

Regardless of these two men and their particular disagreements (that we will return to, for they are foundational for the theory of scholarly editing), history confirms that most disciplines will be subjected to a *Methodenstreit* sooner or later: an intradisciplinary 'dispute about methods'. Other examples for this include the *Methodenstreit* among German historians in the 1890s (Karl Lamprecht's socio-economic focus meeting the resistance of neo-Rankians prioritizing political and person-related history),[87] the *Methodenstreit* of national economics around the same time between the Austrian School and the Historical School (Carl Menger versus Gustav von Schmoller)[88] and the *Methodenstreit* in the German social sciences of the 1960s, culminating in the *Positivismusstreit* ('dispute about positivism') between scholars such as Karl Popper and Hans Albert on the one and Theodor W. Adorno and Jürgen Habermas on the other side.[89] While these examples are not exhaustive and cover only German-language academia,[90] they were prominent

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**86** Ibid.

**87** See George G. Iggers, "The 'Methodenstreit' in International Perspective: The Reorientation of Historical Studies at the Turn from the Nineteenth to the Twentieth Century," in: *Storia della storiografia* 6 (1984), 21–30. See also Hans Schleier, "Der Kulturhistoriker Karl Lamprecht, der ‚Methodenstreit' und die Folgen," in: *Karl Lamprecht: Alternative zu Ranke. Schriften zur Geschichtstheorie*, ed. by Hans Schleier, Leipzig: Reclam, 1988, 7–45.

**88** See Mark Haller, "Mixing Economics and Ethics: Carl Menger vs Gustav von Schmoller," in: *Social Science Information* 43/1 (2004), 5–33. See also Jürgen Backhaus and Reginald Hansen, "Methodenstreit in der Nationalökonomie," in: *Zeitschrift für allgemeine Wissenschaftstheorie* 31 (2000), 307–336.

**89** See David Frisby, "The Popper-Adorno Controversy: The Methodological Dispute in German Sociology," in: *Philosophy of the Social Sciences* 2/1 (1972), 105–119. See also Theodor W. Adorno [et al.], *Der Positivismusstreit in der deutschen Soziologie* (Soziologische Texte; vol. 58), Neuwied [et al.]: Luchterhand, 1969.

**90** Aside from C. P. Snow's famous Rede lecture about "The Two Cultures" in 1959, the most well-known dispute that comes to mind where the Anglosphere is concerned are the 'science wars' of the 1990s, even though it is not quite clear whether they are at all comparable to the *Methodenstreite* under discussion here; and not simply because 'science wars' has a martial ring to it. First of all, they were not intradisciplinary but interdisciplinary. Second of all, it was mostly a backlash of natural scientists against 'postmodern' influences in the philosophy of science and cultural discourse in general (in the United States especially, targeted at French intellectuals) and as such much more politically and ideologically coloured (see Paul R. Gross and Norman Levitt, *Higher*

enough to introduce the German term into the English language.[91] Based on these examples, it stands to reason that the eventual emergence of a *Methodenstreit* and the subsequent consolidation of a dominant school of thought, even if only temporarily, might not be a prerequisite for the establishment of a discipline but could be proof of its formative anxieties.

When applied to a field such as the digital humanities, it becomes apparent that a comparable dispute has yet to take place. There is no *intra*disciplinary controversy that would come close to the historical examples in substance and scope. Instead, the disputes that exist are of an *inter*disciplinary nature – not within the digital humanities but between the digital humanities and the humanities; or rather, between subsets of the humanities and their digital counterparts, with the digital humanities serving as an intermediary platform.

One oft-cited example for this is Franco Moretti's introduction of *distant reading* into the portfolio of literary studies[92] – a deliberate contrast to the tradition of *close reading* as favoured by the likes of William Empson and Jacques Derrida.[93] With the advent of the mass digitization

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*Superstition: The Academic Left and Its Quarrels with Science*, Baltimore: John Hopkins University Press, 1994). Thirdly, it was arguably – partially – conducted in bad faith, regardless of the arguments on both sides. For more information (on the 'Sokal affair' that started the debate as well as the aftermath), see Ullica Segerstråle (Ed.), *Beyond the Science Wars: The Missing Discourse about Science and Society*, New York: State University of New York Press, 2000; Keith Ashman and Phillip Barringer (Eds.), *After the Science Wars: Science and the Study of Science*, London / New York: Routledge, 2001; Keith Parsons, *The Science Wars: Debating Scientific Knowledge and Technology*, Amherst, New York: Prometheus Books, 2003; Martin Carrier [et al.] (Eds.), *Knowledge and the World: Challenges Beyond the Science Wars*, Berlin: Springer, 2004. See also Jan Faye, *After Postmodernism: A Naturalist Reconstruction of the Humanities*, Basingstoke [et al.]: Palgrave Macmillan, 2012, 15–19.

**91** Although usually to denote the German disputes specifically. Cf. e.g. the entry about 'Methodenstreit,' in: *A Dictionary of the Social Sciences*, ed. by Craig Calhoun, Oxford [et al.]: Oxford University Press, 2002, 307; note, however, that the entry makes mention of Wilhelm Windelband's distinction between different sciences – only the man is called "Wildebrand" (ibid.). In all fairness, it sounds even more 'German' than his actual name.

**92** See Franco Moretti, *Distant Reading*, London [et al.]: Verso, 2013.

**93** For one of the early formative works of the movement, see William Empson, *Seven Types of Ambiguity: A Study of Its Effects in English Verse*, London: Chatto and Windus, 1930. Derrida's *Ulysse Gramophone* is often cited as well as a famously extreme example for a close reading exercise (being a lengthy exploration of the word 'yes' in James Joyce's *Ulysses*); see Jacques Derrida, *Ulysse gramophone: deux mots pour Joyce*, Paris:

of books and concurrently the mass availability of texts, extracted via OCR or some other automated process, the focus naturally shifts towards finding ways to harness this material by exploring quantitative questions.[94] The list of measures includes network analysis[95] and topic modelling.[96] But while the computationally aided search for patterns and

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Ed. Galilée, 1987. However, as Alan Liu has pointed out and as should be stressed, 'close reading' cannot be equated with only one type of close reading. Different schools in different countries developed a variety of close reading theories over the years (British, American, French, and so on) and even the one that is usually meant in the American context, the *New Criticism* school with its roots in Tennessee, i.e. the writings of John Crowe Ransom, developed in rather specific conditions and describes a rather specific tradition of close reading; cf. on this topic ALAN LIU, "Humans in the Loop: Humanities Hermeneutics & Machine Learning," closing keynote at the *DHd2020* conference, Paderborn, Germany, 2–6 March 2020, online: <https://www.youtube.com/watch?v=l-nfeOUBCi3s> (video recording, accessed 1 September 2023).

**94** Although we should always be mindful of the fact that quantitative studies were undertaken in the humanities long before. For the German context, see TONI BERNHART, "Quantitative Literaturwissenschaft: Ein Fach mit langer Tradition?" in: *Quantitative Ansätze in Literatur- und Geisteswissenschaften: Systematische und historische Perspektiven*, ed. by Toni Bernhart [et al.], Berlin / Boston: De Gruyter, 2018, 207–220, online: <https://doi.org/10.1515/9783110523300-009>, and MICHAEL BUCHNER [et al.], "Zur Konjunktur des Zählens – oder wie man Quantifizierung quantifiziert: Eine empirische Analyse der Anwendung quantitativer Methoden in der deutschen Geschichtswissenschaft," in: *Historische Zeitschrift* 310/3 (2020), 580–621, online: <https://doi.org/10.1515/hzhz-2020-0019>.

**95** Just by way of example, see CORNELL JACKSON, "Using Social Network Analysis to Reveal Unseen Relationships in Medieval Scotland," in: *Digital Scholarship in the Humanities* 32/2 (2017), 336–343, online: <https://doi.org/10.1093/llc/fqv070>, and DAVID BROWN, ADRIANA SOTO-COROMINAS and JUAN LUIS SUÁREZ, "The Preliminaries Project: Geography, Networks, and Publication in the Spanish Golden Age," in: *Digital Scholarship in the Humanities* 32/4 (2017), 709–732, online: <https://doi.org/10.1093/llc/fqw036>. It is worth bearing in mind that historical network analysis did not originate from the digital humanities nor is it exclusive to it. See MARTEN DÜRING and LINDA VON KEYSERLINGK, "Netzwerkanalyse in den Geschichtswissenschaften. Historische Netzwerkanalyse als Methode für die Erforschung von historischen Prozessen," in: *Prozesse: Formen, Dynamiken, Erklärungen*, ed. by Rainer Schützeichel and Stefan Jordan, Wiesbaden: Springer Fachmedien Wiesbaden, 2015, 337–350, and MARTEN DÜRING and MARTIN STARK, "Historical Network Analysis," in: *Encyclopedia of Social Networks* (vol. 2), ed. by George A. Barnett, London: Sage Publishing, 2011, 593–594. See also the entire field of prosopography, e.g. KATHERINE S. B. KEATS-ROHAN (Ed.), *Prosopography Approaches and Applications: A Handbook*, Oxford: Prosopographica et Genealogica, 2007.

**96** Just by way of example, see CHRISTOF SCHÖCH, "Topic Modeling Genre: An Exploration of French Classical and Enlightenment Drama," in: *Digital Humanities Quarterly* 11/2 (2017), online: <http://www.digitalhumanities.org/dhq/vol/11/2/000291/000291.html> (accessed 13 January 2023), and JEFFREY M. BINDER and COLLIN JENNINGS, "Vis-

clusters is not an affront against the conception of scholarship,[97] its more or less explicit claim of being the superior method to "uncover the true scope and nature of literature"[98] is bound to clash with the view that literature must be understood both in its context *and* in its peculiarity.

The *Methodenstreit*, in this case, is a dispute between disciplines where the discipline of literary studies already offers a great variety of methods apart from close reading[99] (even though traditional scholarship is often equated to it in these contexts), and the digital humanities appear to offer only one method, or rather one set of methods: those that computer science has designated for the use on large text corpora; and it does so in a way that purposefully challenges the status quo by declaring it to be inferior or suggesting that it is, at the very least, insufficient.[100]

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ibility and Meaning in Topic Models and 18th-Century Subject Indexes," in: *Digital Scholarship in the Humanities* 29/3 (2014), 405–411, online: <https://doi.org/10.1093/llc/fqu017>.

**97** Given that literary studies have long worked with categorizations and classifications, trying to group works into genres, movements, eras, sentiments, et cetera. On this topic, see David Perkins, "Literary Classifications: How Have They Been Made?" in: *Theoretical Issues in Literary History* (Harvard English Studies; vol. 16), ed. by David Perkins, Cambridge, Massachusetts / London: Harvard University Press, 1991, 248–267.

**98** Kathryn Schulz, "What Is Distant Reading?" in: *The New York Times* (24 June 2011), online: <https://www.nytimes.com/2011/06/26/books/review/the-mechanic-muse-what-is-distant-reading.html> (accessed 12 January 2023). A version of this article appeared in print, 26 June 2011, on Page BR14 of the 'Sunday Book Review' with the headline: "Distant Reading."

**99** Especially in academic traditions outside of the English-speaking world (e.g. the *Sozialgeschichte der Literatur* in German literary studies). The international diversity of the issue cannot be emphasized enough (and thinking beyond a 'Western'-centric assumption of what literature is and how it can be analysed would reveal even greater disparities). But even so, there were, of course, influential counter-movements to close reading where it was practiced as well, such as the *New Historicism* movement in the USA. In connection with the latter, see also Alan Liu, *Local Transcendence: Essays on Postmodern Historicism and the Database*, Chicago / London: University of Chicago Press, 2008.

**100** Moretti admits as much in several places of his work, such as: "It is a double lesson, of humility and euphoria at the same time: humility for what literary history has accomplished so far (not enough), and euphoria for what still remains to be done (a lot)." (Franco Moretti, *Graphs, Maps, Trees: Abstract Models for a Literary History*, London [et al.]: Verso, 2005, 2.) In her *New York Times* critique of his work, Kathryn Schulz interprets his intentions negatively and writes that Moretti "has suggested that distant reading should supplant, not supplement, close reading." (Schulz 2011.) This view was, at the very least, then, one presented to the interested public.

Therein lies a central theme that the presence of computing reinforces in the humanities: the need to justify their non-computational methods. But that pressure to defend their right to exist is not novel in itself. Amongst themselves as well as amongst the wider range of sciences, the humanities have often had to defend their methods against accusations pertaining to, for example, a lack of empirical evidence or even scientific significance to begin with.[101]

Such debates are a consistent background noise throughout the ages but cyclical in nature when pushing to the foreground; a reversion of dominant principles that we might call, since Thomas Kuhn's seminal work on the topic, paradigm shifts.[102] These movements can be traced not just by focusing on the variety of turns that have been postulated in or across disciplines (e.g. linguistic turn, cultural turn, spatial turn, etc.) but by sketching the broader strokes of intellectual history: romanticism followed by formalism, structuralism followed by poststructuralism, and so on. Since the change of guard is instigated as a reaction to what came before and cycles back to its pre-predecessor, it must, in a way, share similar sentiments every other time in the cycle. Similar sentiments, not identical sentiments. These similarities may rest in the type of primal dichotomies we have already identified as cause for contention: the formal versus the informal, the exact versus the inexact. It stands to reason that the detection of inadequacies with a given approach propels detractors to seek refuge in the opposite direction and each time this happens, the arguments grow more sophisticated and, arguably, convoluted, until the long-time trajectory becomes obscured by the difficulty to arrange it in a neat line.

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**101** This perceived lack of 'scientificity' is also well-illustrated in a digital humanities context in an announcement of a conference on *Modelling Vagueness and Uncertainty in DH* that reads: "Digital Humanities (DH) aims not only to archive and make available materials (in particular historical artefacts) but also to introduce a better scientific reflexion into humanities by propagating computational methods." (Cf. the conference website under the section 'About', <https://www.inf.uni-hamburg.de/inst/dmp/her-core/publications/vaguenessuncertainty2020.html> (accessed 12 January 2023); the conference was organized by the University of Hamburg, 9–10 July 2020.)

**102** For a more nuanced discussion, see ANDREA SAKOPARNIG, ANDREAS WOLFSTEINER and JÜRGEN BOHM (Eds.), *Paradigmenwechsel: Wandel in den Künsten und Wissenschaften*, Berlin / Boston: De Gruyter, 2014.

In the case of the digital humanities, if there are constants, they are further obscured by a sense of disciplinary discontinuity; while there may not have been a clean break along the year of 2005, it marks, as is well-known, the renaming of the field from 'humanities computing' to 'digital humanities'[103] which resulted in an expansion into a 'big tent' of differing definition[104] and the impression among non-specialists that the field constitutes a recent phenomenon.[105] In handbooks, the history of

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**103** This change of name to 'digital humanities' has even been referred to as "the name being given to this field, calling it into existence" (ROBERT SCHOLES and CLIFFORD WULFMAN, "Humanities Computing and Digital Humanities," in: *South Atlantic Review* 73/4 (2008), 50–66, here 51).

**104** This is especially pronounced in the definitions gathered from a variety of practitioners during the 'Day of Digital Humanities' initiative, cf. "Selected Definitions from the Day of Digital Humanities: 2009–2012," in: *Defining Digital Humanities: A Reader*, ed. by Melissa Terras, Julianne Nyhan and Edward Vanhoutte, Farnham, Surrey [et al.]: Ashgate, 2013, 279–287. As for the 'big tent' metaphor, cf. MELISSA TERRAS, "Peering Inside the Big Tent," in: *Defining Digital Humanities: A Reader*, ed. by Melissa Terras, Julianne Nyhan and Edward Vanhoutte, Farnham, Surrey [et al.]: Ashgate, 2013, 263–270; PATRICK SVENSSON, "Beyond the Big Tent," in: *Debates in the Digital Humanities*, ed. by Matthew K. Gold, Minneapolis: University of Minnesota Press, 2012, 36–49; and PATRICK SVENSSON, *Big Digital Humanities: Imagining a Meeting Place for the Humanities and the Digital*, Ann Arbor: University of Michigan Press, 2016.

**105** William Pannapacker's reaction to the 2009 convention of the Modern Language Association (MLA) and his verdict that "the digital humanities seem like the first 'next big thing' in a long time" are notorious by now; he also noted that "the sessions are well attended but not usually packed, like celebrity panels -- perhaps the field is still too emergent" (WILLIAM PANNAPACKER, "The MLA and the Digital Humanities," in: *The Chronicle of Higher Education* (28 December 2009), online: <https://web.archive.org/web/20100102214032/http://chronicle.com/blogPost/The-MLAthe-Digital/19468/> (accessed 4 October 2020; specifically accessed in this archived version from 2 January 2010 since the link was already broken while writing this book)). At the same time, he did acknowledge that "[t]here are, of course, many pioneering digital humanists who have been laying the groundwork for the current transformation for decades" (ibid.). Such an observation is necessarily grounded in a certain familiarity with the subject. William Pannapacker furthermore conceded, in a later blog post, that in response to his declaration of the digital humanities as the "'next big thing' […] the digital humanists were indignant because they've been doing their thing for more than 20 years (and maybe even longer than that)" and he also noted "from experience that there are plenty of people in the profession who know little about this established field and even regard it with disdain as something disturbingly outré and dangerous to the mission of the humanities" (WILLIAM PANNAPACKER, "Digital Humanities Triumphant?" in: *The Chronicle of Higher Education* (8 January 2011), online: <http://chronicle.com/blogs/brainstorm/pannapacker-at-mla-digital-humanities-triumphant/30915> [reprinted in *Debates in the Digital Humanities*, ed. by Matthew K. Gold, Minneapolis: University of Minnesota Press, 2012, 233–234]). The pervasive notion of a future-facing and

humanities computing may be recounted in the form of the canonized founding myth with its 'founding father' Roberto Busa SJ but even that concession to tradition assumes the mantle of a certain kind of entrepreneurial imagination of self – and it has been challenged in most recent years, of course.[106] The established canon of research literature is not as comprehensive as the popularity of the field might suggest and it rarely appears to take literature into account that was produced in non-English-speaking countries as well as adjacent disciplines in the latter half of the 20th century, such as cybernetics. The pace of evolving technologies may also be a factor in this.

Whatever the reason, we can consequently observe that few have so far explicitly sought to draw a line from other intellectual movements in the humanities, such as the aforementioned structuralism, to the digital humanities as themselves a manifestation of an intellectual movement. James E. Dobson has done so in his book *Critical Digital Humanities: The Search of a Methodology* (2019) where he examines the digital humanities specifically as a form of return to structuralist thought,[107] but as Evelyn Gius notes in her review of his study:

> Since the debate as to whether structuralist or post-structuralist approaches should be the basis for digital humanities analyses is not an intrinsic digital humanities debate, it was not regarded as decisive for the discussion of the critical digital humanities. Even though the debate has been fueled by (mainly academic) developments in digital humanities, there is no compelling connection between digital humanities and (neo-)structuralism. At least not beyond the fact, also mentioned by Dobson, that structuralist approaches can be more easily computationally modelled. […] Additionally, without the

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history-sparse digital humanities can also be found, in a slightly different configuration, in publications within the field itself, such as when James E. Dobson mentions "[t]he history of the digital humanities, brief as this history is at present" (JAMES E. DOBSON, *Critical Digital Humanities: The Search for a Methodology*, Urbana, Illinois: University of Illinois Press, 2019, 1).

**106** Such as when it comes to the labour of Busa's female workforce; see JULIANNE NYHAN, *Hidden and Devalued Feminized Labour in the Digital Humanities: On the Index Thomisticus Project 1954-67*, London / New York: Routledge, 2022.

**107** Cf. DOBSON 2019, esp. 57–65.

> objection of structuralism, the requirements for the critical digital humanities are higher: If the reference to structuralist approaches is no longer sufficient to criticize an approach, other, more elaborate criteria, must be adopted for digital humanities criticism.[108]

It is true, or at least would intuitively appear to be true, that levelling an 'accusation' of structuralism at the digital humanities does not in itself constitute a very meaningful critique. However, there are two aspects to this that Gius in turn does not seem to take into account: First of all, an observation that the digital humanities are in spirit or practice more oriented towards structuralist and formalist approaches from the past than post-structuralist approaches does not have to be formulated as a criticism or critique, even if Dobson employed it for that purpose; an observation can be, *prima facie*, an observation, first and foremost, that merely situates the digital humanities, insofar as it is possible to do that for an interdisciplinary and international field of activity, within a broader historizing, i.e. analytical descriptive, view of academic developments and movements of thought. Second of all, that observation, with as many caveats as one might want to apply in order to preserve some nuance, is not as trivial as Gius makes it seem, nor must it prove to be a perfect reincarnation or conscious effort of brokered continuation to be informative as to certain kinds of *alignment* of thought, *dominance* of thought, and *tradition* of thought, all of which are of great relevance when it comes to the epistemological – which is also to say, political, economic, social – conditionality of research.

Why, then, might the digital humanities be seen as a manifestation of an intellectual movement within the humanities as well as tangent to the humanities? And why, specifically, might the digital humanities be referred to as neo-structuralist in essence? Because – and I state this with all the caution that must accompany generalizations of this sort – they operate on two implicit premises: (1) the premise that objects of study

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**108** Evelyn Gius, "Digital Humanities as a Critical Project: The Importance and Some Problems of a Literary Criticism Perspective on Computational Approaches," review, in: *Journal of Literary Theory* (24 January 2020), online: <http://nbn-resolving.de/urn:nbn:de:0222-004298>.

from the humanities can be analysed in a structured way; and (2) the premise that knowledge in or, more specifically, information from the humanities can be expressed in a structured or formal way. This statement hinges, of course, on a host of assumptions as to what constitutes 'knowledge', 'structures', 'humanistic objects of study' and so on. However, I would posit that computation or rather computing, as associated with commands, loops, variables, logical assertions of a mathematical kind, sequences of instruction, et cetera, to name but a few randomly chosen notions, is seen to be subject to an *operationality* that someone involved in the digital humanities cannot simply reject as a base or perhaps even *the* base of the *conditionality* of their research; hence the ongoing discussion about the operationalization and formalization of humanistic questions and 'knowledge' in the digital humanities – or, put slightly differently, about their operationalizationability and formalizationability.[109] When looking at digital humanities literature and discourse in general, one could arrive at the conclusion that without accepting the *likelihood* of these premises or without accepting their *boundedness* to one's own premises of research, one cannot practice digital humanities. The alternative would be to continuously 'fail' in practicing them and thereby, if not prove the premises listed above, prove that not adhering

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**109** See Axel Pichler and Nils Reiter, "From Concepts to Texts and Back: Operationalization as a Core Activity of Digital Humanities," in: *Journal of Cultural Analytics* 7/4 (2022), online: <https://doi.org/10.22148/001c.57195>. References to 'operationalization' – or *Operationalisierung* – are ubiquitous in German digital humanities literature; see, by way of example, the section on 'formalization and operationalization' in Andrea Rapp, "Manuelle und automatische Annotation," in: *Digital Humanities: Eine Einführung*, ed. by Fotis Jannidis, Hubertus Kohle and Malte Rehbein, Stuttgart: J.B. Metzler, 2017, 253–267, here 255–257, or articles such as Anton Fuxjäger, "Wenn Filmwissenschaftler versuchen, sich Maschinen verständlich zu machen: Zur (mangelnden) Operationalisierbarkeit des Begriffs 'Einstellung' für die Filmanalyse," in: *Maske und Kothurn* 55/3 (2009), 115–128. The discussion is not, however, an exclusively German one, of course. See, for example, R. C. Alvarado, "Digital Humanities and the Great Project: Why We Should Operationalize Everything—and Study Those Who Are Doing So Now," in: *Debates in the Digital Humanities 2019*, ed. by Matthew K. Gold and Laura F. Klein, Minneapolis: University of Minnesota Press, 2019, 75–82, and Franco Moretti, "'Operationalizing': or, The Function of Measurement in Modern Literary Theory," in: *Pamphlets of the Stanford Literary Lab* 6 (2013), or Franco Moretti and Leonardo Impett, "Totentanz: Operationalizing Aby Warburg's Pathosformeln," in: *Pamphlets of the Stanford Literary Lab* 16 (2017) [both issues online: <https://litlab.stanford.edu/pamphlets/> (accessed 12 January 2023)].

to them does not produce the desired result (either, depending on the case).[110] In a different view, the view wherein the digital humanities refer

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**110** A further note of personal argumentation: I will acknowledge that I have received criticism for the position I am taking here and it may indeed be lacking in nuance, so I want to elaborate on it: The criticism was that it is possible to practice digital humanities research without any preconceived notion that it may lead to the computation of material from the humanities and that this research might just as well be interested in finding out what *cannot* be computed as it may be in finding out what can be computed. I do not disagree that this is true but it is beside the point. The predominant goal of digital humanities research as specified above is to find out how something can be computed, not how it cannot be computed. If the result is that it cannot be computed, that is a 'failure' which does not mean that that result is not of interest; quite the opposite. Something can be learned from failure and in that sense, it might even be of greater interest than a different result. I may also be persuaded to not speak of 'failure' or 'success' as I myself think these terms are not very apt to describe research results one way or the other (see also my article on the topos of 'failure' in the digital humanities which I, in fact, spun out of this very footnote: TESSA GENGNAGEL, "Vom Topos des Scheiterns als konstituierender Kraft: Ein Essay über Erkenntnisprozesse in den Digital Humanities," in: *Fabrikation von Erkenntnis: Experimente in den Digital Humanities* (Zeitschrift für digitale Geisteswissenschaften; special vol. 5), ed. by Manuel Burghardt [et al.], Wolfenbüttel: Forschungsverbund MWW, 2022, online: <https://doi.org/10.17175/sb005_011>). The reason I speak of 'failure' in this case is that I want to emphasize that there usually *is* an expectation of a tangible outcome (a digital edition, database, visualization etc.) outside of the literature produced about the research – that is a major difference to traditional humanistic research. On the conversational presence of 'failure' in the digital humanities, one might want to consult JOHN UNSWORTH, "Documenting the Reinvention of Text: The Importance of Failure," in: *Journal of Electronic Publishing* 3/2 (1997), online: <https://doi.org/10.3998/3336451.0003.201>, and his opening statement: "If an electronic scholarly project can't fail and doesn't produce new ignorance, then it isn't worth a damn." He then refers to Karl Popper's famous theses and stresses "the importance – the utility – of what we do know and, on the other hand, the ephemeral, contingent, transitional character of that knowledge – and therefore, the need for experiment, the indispensability of mistakes, and the necessity of recognizing, documenting, and analyzing our failures" (ibid.). That is all well and true. However, there is a difference between finding yourself able to compute something or unable to do so: If you are able to compute something in the way you want to do it, in this given context, you have thereby proven one of the two proposed premises that the digital humanities rest upon to be reasonably well-assumed, as the basic machination of proceedings relies on them. (The question then becomes whether what you did was methodically sound and produced valuable findings but that is a question for every researcher to answer in everything they do.) If you are unable to compute something in the way you want to do it, all you will have proven is that you were personally unable to do so, not that is impossible in principle or even in practice. The value of learning how to compute something is self-evident when the goal is the act of computation itself (in the first degree of a scholarly project, not necessarily its final objective), whereas the value of learning how not to compute something is nebulous at best, outside of using that knowledge to better learn how to compute something or one day arrive at a point where it may be computed

to the humanities 'existing' in the digital age in a broad sense without either of those premises at their core or even periphery, that tension is solved by definition.

Whether the mere *groundedness* of digital humanities research in matters of *structuring* (classification, disambiguation, pattern recognition, and so on) is enough to declare them as neo-structuralist with specific reference to the theories and concepts developed by structuralists and semioticians such as Ferdinand de Saussure and Claude Lévi-Strauss would be its own research question and require a much more nuanced debate and examination of structuralist as well as post-structuralist precursors to digital humanities theory-building; and the purpose of making such an argument would also have to be explained further.[111] But if we proceed from the above assumption, then it follows that there cannot be a *Methodenstreit* within the digital humanities about the very premises that the methodology rests upon. They can be struggled against, however futile that struggle might be, but they cannot be discarded in favour of a principle championing an informal, inexact Grimmian approach. They

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even if it may not yet. Those two opposing outcomes are therefore fundamentally different in how they relate to the stated premises, which is a different difference than the difference in how they can inform a researcher in their work. I am not claiming that the digital humanities are out to prove their own premises or even able to do so but it is my observation that without genuinely believing that those premises *can* be true or, alternatively, without believing that an account of their 'truthfulness' must be disregarded or sublimated through some other kind of argument engaging with them, no research can be conducted in the digital humanities; at least not in the way that a lot of research in the digital humanities is being conducted as of this moment, an important distinction.

**111** That this debate would have to be quite involved is evidenced by the fact that most of the French so-called 'post-structuralists' rejected the label which must be something either not known to or otherwise ignored by those who insist on talking about 'structuralists and post-structuralists' or 'structuralists vs. post-structuralists' without at least acknowledging that caveat; cf. JOHANNES ANGERMULLER, *Why There Is No Post-structuralism in France: The Making of an Intellectual Generation*, London: Bloomsbury Academic, 2015. Manfred Frank introduced the term 'neo-structuralism' to refer to what others call post-structuralism which is something else that would have to be discussed if one wanted to label the digital humanities as 'neo-structuralist;' see MANFRED FRANK, *Was ist Neostrukturalismus?* (Edition Suhrkamp; vol. 1203), Frankfurt am Main: Suhrkamp, 1984. See also his more recent reflection in MANFRED FRANK, "Was ist Neostrukturalismus? Derridas sprachphilosophische Grundoperation im Ausgang vom klassischen Strukturalismus," in: *Handbuch der Kulturwissenschaften* (vol. 2: Paradigmen und Disziplinen), ed. by Friedrich Jaeger and Jürgen Straub, Stuttgart: J.B. Metzler, 2011, 364–376.

position themselves against that by the very fabric of their functionality. In a sense – an important sense –, the *instrumentarium* is fixed. The essence of these instruments cannot be debated. Any such debate would be a debate for computer science and even then, what would that be?

If there is to be a *Methodenstreit* in the digital humanities, it has to be about the methods *as they relate to the subject they are applied to*.[112] The results yielded by the used methods cannot be divided from the methods, and the materials they were used on cannot be divided from the results. Thus, the point of contention shifts towards the value of these results. In that regard, the burden of proof lies with the digital humanities – not with the humanities that came before, even if someone were to think that the humanities had never produced any worthwhile result throughout their whole history via the application of 'traditional' methodologies.[113]

As for the debate surrounding *distant reading*, Moretti conceded in 2006, shortly after the release of his book *Graphs, Maps, Trees* and in response to a critique levelled at it by Christopher Prendergast, that "a good method should prove itself by producing interesting findings"[114] and that the methods introduced in his book had yielded "few concrete results"[115] up to that point, much to his own chagrin.[116] He voiced his

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**112** Michael Piotrowski and Mateusz Fafinski make a very similar point when they state that "the methods […] first and foremost must be adequate for the research object and the research question" (Michael Piotrowski and Mateusz Fafinski, "Nothing New Under the Sun? Computational Humanities and the Methodology of History," in: *Proceedings of the Workshop on Computational Humanities Research*, ed. by Folgert Karsdorp [et al.], Amsterdam, 2020, 171–181, here 178).

**113** Since many, although certainly not all, digital humanists – or those who identify themselves as such – seem to have originally studied a 'traditional' discipline from the humanities, such an extreme position would be surprising but it is not entirely inconceivable. The pertinent question being, of course, whether there is any kind of methodology in the digital humanities that does not have a precursor in 'traditional methodology', even if only in spirit.

**114** Moretti 2013, 139. From the essay "The End of the Beginning: A Reply to Christopher Prendergast" as originally published in *New Left Review*, September/October 2006.

**115** Ibid.

**116** He essentially repeated that sentiment ten years later, in an interview with the German news magazine *Der Spiegel*. He said: "Right now everyone is working with diagrams, graphs, networks, lists. But often what's published is only a torrent of facts – and the explanation behind it is mundane, without scholarly depth. I hope that's only an

disappointment at having nothing to offer but a "methodological reply"[117] and quoted Lucio Colletti's sentiment that "methodology is the science of those who have nothing."[118]

If divorced from any application, that would ring true. However, the same might be true in reverse: That *application without methodology is the science of those who will have nothing*. Methodology, in this case, meaning a methodology that is consciously and sufficiently reflected – for there is always some underlying methodology, of course, as there is always some implied application even with those who allegedly practice nothing but methodology. The latter might lack the findings but the former lack the framework with which to give them meaning; systematically relevant meaning.

## D.
### FUNDAMENTALS OF TEXTUAL CRITICISM

We could, at this point, re-focus our attention on modelling as a methodology in the digital humanities and deepen the thoughts that have only been sketched very broadly so far. The concern of this book is not, however, a purely methodological one. If we take the idea that we need to understand our methods *as they relate to the subject they are applied to* seriously, then we need to stay with Jacob Grimm and Karl Lachmann for a moment longer. I did not choose to highlight their particular *Methodenstreit* frivolously. Any consideration of editorial theory has to begin at the start, and while it may not be required to recall these histories in certain contexts of expertise, it is my impression that any interdisciplinary book such as this one benefits from laying the groundwork.

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issue of growth and that soon, more critical perspectives will follow. […] The data hasn't produced a real Eureka moment yet. Its quality isn't as high as hoped: because the field of research is still young and the few people that work in it have to do so with modest means." (Franco Moretti, "Als ob ich die Literatur an Barbaren verrate," interview by Anne Haeming, in: *Spiegel Online* (6 June 2016), online: <http://www.spiegel.de/kultur/literatur/franco-moretti-als-ob-ich-die-literatur-an-barbaren-verrate-a-1096078.html> (accessed 12 January 2023).)

**117** Moretti 2013, 139.
**118** Ibid.

Incidentally, laying the groundwork is exactly what Grimm and Lachmann were doing – what all those philologists, librarians, and cultural historians were doing in the 19ᵗʰ century, when the modern-day humanities emerged.[119] With respect to Germany one could put it thusly: In the beginning of the *Geisteswissenschaften*, there was the *Germanistik*. And in the beginning of the *Germanistik*, there was the *Textkritik*. That tradition is still felt today.[120]

If there is one fundamental dependence in the humanities, it is the dependence on scholarly editions – this is true for the historical disciplines, the philologies, and musicology. The only exception to this are the disciplines wherein there is neither a primacy of text-based hermeneutics nor a primacy of other notation systems; so, in effect, the disciplines that are concerned with imagery, such as art history, or multimedia, such as film studies.

The need for scholarly editions arises from the unstable transmission of documents (or, more broadly speaking, material evidence). This lack

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**119** Cf. "If we had not had a transmission of classical texts in the Middle Ages and at the beginning of early modern times, we would not have had a foundation to teach any lessons. Therefore, the texts and their quality of transmission play a decisive role in many ways in the prehistory of the humanities as well as in the transformation that occurs around 1800 because of the creation of the modern humanities." (Søren Kjørup, *Humanities – Geisteswissenschaften – Sciences humaines: Eine Einführung*, transl. by Elisabeth Bense, Stuttgart / Weimar: J.B. Metzler, 2001, 27, original (German translation): "Hätte man im Mittelalter und zu Beginn der Neuzeit keine überlieferten klassischen Texte gehabt, hätte es für das Vermitteln von ,Lehren' keine Grundlage gegeben. Die Texte und die Qualität ihrer Überlieferung spielen daher in vieler Hinsicht die entscheidende Rolle in der Vorgeschichte der Geisteswissenschaften, wie auch bei der Umwälzung, die sich um 1800 durch Schaffung der modernen Geisteswissenschaften vollzieht.")

**120** As noted, this only pertains to the 'modern' humanities as they formed in the 19ᵗʰ century; and if one were to reach further into the history of textual scholarship, biblical exegesis as well as figures such as Jean Mabillon would have to be discussed, of course. For one such tracing of textual scholarship throughout time, see David Greetham, "A History of Textual Scholarship," in: *The Cambridge Companion to Textual Scholarship*, ed. by Neil Fraistat and Julia Flanders, Cambridge: Cambridge University Press, 2013, 16–41 (Mabillon is only briefly mentioned, cf. ibid., 29). Furthermore, we could also say: In the beginning of the *Geisteswissenschaften*, there was the *Geschichtswissenschaft*. Or the *Altertumswissenschaften*. We would not be wrong, since all of these disciplines developed in parallel as well as in conjunction with each other; something that might be difficult to imagine in an ever-increasingly specialized academia. *Editionswissenschaft* ('editorial theory' or 'science'), for example, is, in the traditional German sense, often grouped as a *historische Hilfswissenschaft* or *Grundwissenschaft* ('auxiliary historical science').

of stability is not restricted to handwritten transmission but certainly aggravated by the practice, resulting in various *witnesses* of a work due to the manual process of copying. Subsequently, scholarly editions traditionally focus on materials that have survived from ancient, medieval, and early modern times – the pre-print age, so to speak, although printing and handwriting have continued to co-exist which is one of the reasons, but not the only reason, why scholarly editions are still required for materials up to and including the 20th century; and one imagines the need for scholarly editions will continue and come to include born-digital documents. Editions of modern materials often either curate a certain type of document within a certain context, such as letter editions related to figures deemed historically relevant,[121] or they trace the genesis of a literary work within the notes and manuscripts of a single author.[122] A different type of edition of modern material prioritizes the scholarly annotation of a work for educational and societal purposes, even if it was transmitted in printed and thus relatively stable form.[123]

The edition of handwritten materials, however, arguably accounts for most scholarly editions in a European context, be they historical-critical, genetic, or of another variety. In this regard, the aforementioned Karl Lachmann still looms large, although he has been dead for over 150 years. Soon after his death, scholars already anticipated the lasting impact that his methodology would have even though he himself never elaborated on it,[124] rather establishing it through his editions that

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**121** Such as the ongoing edition of Johann Wolfgang von Goethe's letters (first volume in two parts: JOHANN WOLFGANG VON GOETHE, *Briefe: Historisch-kritische Ausgabe. 23. Mai 1764–30. Dezember 1772*, ed. by Elke Richter and Georg Kurscheidt, Berlin: Akademie-Verlag, 2008).

**122** Such as JAMES JOYCE, *Ulysses* (vol. 1–3), ed. by Hans Walter Gabler, New York: Garland, 1984.

**123** Such as the scholarly edition of ADOLF HITLER, *Mein Kampf*, ed. by CHRISTIAN HARTMANN [et al.], München [et al.]: Stiftung zur wissenschaftlichen Erforschung der Zeitgeschichte, 2016. See also, for information about the design of the edition, MORITZ AHRENS and CHRISTOPHER BUSCH, "Editionsphilologie und inszenierende Typographie: Eine praxeologische Perspektive auf die Mein-Kampf-Edition des Instituts für Zeitgeschichte," in: *editio* 32/1 (2018), 119–136, online: <https://doi.org/10.1515/editio-2018-0009>.

**124** Paul Maas is commonly cited as co-founding the field of *textual criticism* and putting the methodology that was prevalent at the time into writing; see PAUL MAAS, *Textkritik*, Leipzig: Teubner, 1927.

he created out of materials from wildly different eras as was custom when the disciplines were not as clearly demarcated as they are today. Examples for editions of his include the writings of ancient authors such as Lucretius and Catullus;[125] the medieval writings of Walther von der Vogelweide and Wolfram von Eschenbach;[126] and the early modern writing of Gotthold Ephraim Lessing.[127] As one of the 'founding fathers' of *textual criticism*, his principles were as rigorous as they were seminal. To elaborate on what I had only indicated earlier: His aim was to establish an edited text that adhered as closely as possible to a supposedly lost but once extant *Urtext*. He sought to achieve this by surveying the surviving manuscripts in which a given text or fragments thereof had been transmitted and then ordering them in a genealogical tree, the so-called *stemma*. 'Contaminations' occurring the further a manuscript strayed from the *archetype* were to be purged – the language to be standardized[128] – and the authorial intentions to be laid bare. Rens Bod, a key figure in the emerging field of the 'history of the humanities' whose scholarship we will have to discuss in **CHAPTER II**, has gone so far as to state that "[s]temmatic philology is possibly the most successful

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**125** See Titus Lucretius Carus, *De Rerum Natura Libri Sex*, ed. by Karl Lachmann, Berlin: G. Reimer, 1850. See also Gaius Valerius Catullus, *Q. Valerii Catulli Veronensis liber*, ed. by Karl Lachmann, Berlin: G. Reimer, 1829. [Note that the name of Karl Lachmann is latinized in the editions and appears as Carolus Lachmannus. The same is true for other bibliographic data such as Berlin being called Berolini etc.]

**126** See Karl Lachmann (Ed.), *Die Gedichte Walthers von der Vogelweide*, Berlin: G. Reimer, 1827. See also Karl Lachmann (Ed.), *Wolfram von Eschenbach*, Berlin: G. Reimer, 1833.

**127** See Karl Lachmann (Ed.), *Gotthold Ephraim Lessings sämmtliche Schriften* (vol. 1–13), Berlin: Voß, 1838–1840.

**128** The most illustrative example for this is his invention of an artificial *Normalmittelhochdeutsch* (or *normalisiertes Mittelhochdeutsch*) that German scholars are highly critical of nowadays since it is ahistorical in nature and obscures the great linguistic variety that existed before there ever existed a standardized German, cf. Weigel 1989, 171f. See, for further reading on the matter, Karl Stackmann, "Die Edition – Königsweg der Philologie?" in: *Methoden und Probleme der Edition mittelalterlicher deutscher Texte* (editio / Beihefte; vol. 4), ed. by Rolf Bergmann [et al.], Tübingen: Niemeyer, 1993, 1–18, online: <https://doi.org/10.1515/9783110941647.1>; see also Joachim Heinzle, "Zur Logik mediävistischer Editionen: Einige Grundbegriffe," in: *editio* 17 (2003), 1–15, online: <https://doi.org/10.1515/9783484604544.1>.

humanistic discipline"[129] – a statement that must be attributed to his selective perception in seeing the purpose of the humanities in their search for patterns, of which stemmatology is, without doubt, one of the purest examples.

Wilhelm Scherer, an Austrian philologist, remarked in a review of Lachmann's writings in 1876:

> Lachmann died in 1851 but he continues to live amongst us in the most wonderful way. He is beloved and hated as if he were present and working. [...] How come that this distinguished scholar is not granted his well-deserved peace in death? [...] In any case, the main reason is Lachmann's own personality. He impresses, indeed. [...] Every word that hails from his quill conveys the impression of the true, of the laboriously acquired and of that which is derived from a strong conviction.[130]

I quote and translate this part here because it may be of interest to those who keep invoking Lachmann's name as a counterpoint in current debates about digital scholarly editions. After extolling the virtues of Lachmann, Scherer returns to the controversy surrounding his methods and adds as his final verdict:

> Should it not also be part of the work ethic of the scholar that he be aware of the theoretical justification of the methods that he seeks to work with? The demand is made so rarely in the humanities that it can hardly be cause for reproach against the indi-

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**129** RENS BOD, *A New History of the Humanities: The Search for Principles and Patterns from Antiquity to the Present*, Oxford [et al.]: Oxford University Press, 2013, 279 [hereafter referred to as BOD 2013a].

**130** WILHELM SCHERER, "Kleinere Schriften von Karl Lachmann," in: *Kleine Schriften zur altdeutschen Philologie von Wilhelm Scherer*, ed. by Karl Burdach, Berlin: Weidmannsche Buchhandlung, 1893, 92–99, here 92f. [originally published in *Preußische Jahrbücher* 38 (1876), 597–604], original: "Lachmann ist im Jahre 1851 gestorben, aber er lebt auf die wunderbarste Weise unter uns fort. Er wird geliebt und gehaßt wie ein Gegenwärtiger und Wirkender. [...] Wie kommt es, daß man einem ausgezeichneten Gelehrten nicht die wohlverdiente Grabesruhe gönnt? [...] Der Hauptgrund liegt jedenfalls in Lachmanns eigener Persönlichkeit. Er imponirt [sic!] durchaus. [...] Jedes Wort, das aus seiner Feder kommt, macht den Eindruck des Echten, des mühsam Erworbenen und aus einer starken Überzeugung Geflossenen."

vidual if he does not meet it. To work towards bet-
terment, to develop or reshape Lachmann's method
theoretically, to finally fill the white sheet that logic
and epistemology have left unattended for us, that
would be the finest and worthiest way of celebrating
Lachmann's memory.[131]

It would seem that in the years since then, this conciliatory stance did
not quell a more inflammatory rhetoric seeping into the discourse about
and around Lachmann's methodology and influence; but it should also
be noted that a strong tradition of neo-Lachmannianism developed in
Italy which did indeed reshape Lachmann's method in the spirit that
Scherer proposed.[132]

As for Lachmann's detractors, Jacob Grimm's criticism has been men-
tioned already, although he cannot be seen as a predecessor to later crit-
ics because the quality of criticism was different. It was not until the
*New Philology* movement in the late 1980s and early 1990s that Lach-
mann and his method – or the ideologically petrified variation thereof
– met with veritable resistance.[133]

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**131** Scherer 1893, 99, original: "Sollte es nicht auch zu der Berufsmoral des Gelehrten
gehören, daß er über die Berechtigung der Methoden theoretisch im Klaren sei, mit de-
nen er zu arbeiten versucht? Die Forderung wird innerhalb der Geisteswissenschaften
so selten erhoben, daß es dem Einzelnen kaum zum Vorwurfe gereichen kann, wenn er
ihr nicht genügt. Hierin auf Besserung hinzuwirken, Lachmanns Methode theoretisch
auszubilden oder umzubilden, das weiße Blatt endlich zu füllen, welches die Logik und
Wissenschaftslehre für uns offen hält, das wäre die schönste und würdigste Art, Lach-
manns Gedächtnis zu feiern."
**132** This can be attributed to Giorgio Pasquali who further developed Lachmann's
methodology under the influence of Joseph Bédier; see Giorgio Pasquali, *Storia della
tradizione e critica del testo*, Firenze: Le Monnier, 1934. This publication was also a
reaction to and expansion on Maas 1927, cf. Paolo Trovato, *Everything You Always
Wanted to Know about Lachmann's Method*, Padova: libreriauniversitaria.it, 2014, 71.
See also, Paolo Trovato, "What if Bédier was Mistaken? Reflections of an Unrepetant
Neo-Lachmannian," in: *Digital Philology: New Thoughts on Old Questions*, ed. by
Adele Cipolla, Padova: libreriauniversitaria.it, 2018, 161–180, and Marina Buzzoni and
Eugenio Burgio, "The Italian 'Third Way' of Editing between Globalization and Lo-
calization," in: *Internationalität und Interdisziplinarität der Editionswissenschaft* (edi-
tio / Beihefte; vol. 38), ed. by Michael Stolz and Yen-Chun Chen, Berlin / Boston: De
Gruyter, 2014, 179–188, online: <https://doi.org/10.1515/9783110367317.179>.
**133** In the case of the *Altgermanistik* (studies of German medieval philology), Karl
Stackmann summarized the points of contention well, cf. Karl Stackmann, "Neue Phi-
lologie?" in: *Modernes Mittelalter: Neue Bilder einer populären Epoche*, ed. by Joachim

An increasing number of philologists took offence at Lachmann's tendency to treat the textual transmission from different eras and centuries the same, no matter the historical background and reality, always supposing authorial intent and aiming at establishing that 'one true version'. What might be applicable to early modern works – with its promotion of the single author and even the sole *genius* of artistic creation[134] – does not necessarily lend itself as a concept on which to project medieval intellectual activity. Bernard Cerquiglini defined the stance of the *New Philology* movement best when he famously stated: "L'auteur n'est pas une idee médiéval."[135]

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Heinzle, Frankfurt am Main [et al.]: Insel-Verlag, 1999, 398–427. See also THOMAS BEIN, "Die mediävistische Edition und ihre Methoden," in: *Text und Edition: Positionen und Perspektiven*, ed. by Rüdiger Nutt-Kofoth, Berlin: Erich Schmidt, 2000, 81–98 (see esp. 89–92 for his discussion of the *New Philology* movement). For further insight into the tense discourse that dominated the early 1990s, see WILLIAM DOREMUS PADEN (Ed.), *The Future of the Middle Ages: Medieval Literature in the 1990s*, Gainesville: University Press of Florida, 1994.

**134** See LARRY SHINER, *The Invention of Art: A Cultural History*, Chicago: University of Chicago Press, 2001, 111–115. Herder, Goethe, and the *Sturm und Drang* spearheaded the popularization of the artistic genius but Kant's definition in his *Kritik der Urteilskraft* (1790), chapter 56, § 46 "Schöne Kunst ist Kunst des Genies" (as well as the following paragraphs), was influential as well, cf. KEREN GORODEISKY, '19th Century Romantic Aesthetics,' in: *The Stanford Encyclopedia of Philosophy* (Fall 2016 edition), ed. by Edward N. Zalta, online: <https://plato.stanford.edu/archives/fall2016/entries/aesthetics-19th-romantic/>. In terms of notions of intellectual property, it might be interesting that he speaks of the genius as the "dem eigentümlichen einem Menschen bei der Geburt mitgegebenen, schützenden und leitenden Geist" (*eigentümlich* meaning individual and unique but also being related to *Eigentum* which means property and ownership). For further reading, see PAUL W. BRUNO, *Kant's Concept of Genius: Its Origin and Function in the Third Critique*, London [et al.]: Continuum, 2011. The concept of intellectual ownership and property precedes Kant and it might be said that the general notion was 'in the air' in the 18th century. In a German context, one of the first legal scholars who wrote about the topic was Nicolaus Hieronymus Gundling, who published a monograph about it in 1726, cf. NICOLAUS HIERONYMUS GUNDLING, *Rechtliches und Vernunfft-mässiges Bedencken eines Icti, der unpartheyisch ist, von dem schändlichen Nachdruck andern gehöriger Bücher*, [sine loco], 1726. (Icti is short for "Iurisconsulti".) He explicitly speaks of "Eigenthum" in terms of authors' rights twice, see ibid., 5 and 25. For more information on Gundling and his role in the legal history of the concept, see HEINER LÜCK, "Nicolaus Hieronymus Gundling und sein ‚Rechtliches Und Vernunfft-mässiges Bedencken … von dem Schändlichen Nachdruck andern gehöriger Bücher'," in: *Grundlagen und Grundfragen des Geistigen Eigentums*, ed. by Louis Pahlow and Jens Eisfeld, Tübingen: Mohr Siebeck, 2008, 9–34.

**135** BERNARD CERQUIGLINI, *Éloge de la variante: Histoire critique de la philology*, Paris: Ed. du Seuil, 1989, 25.

However, in his desire to radically challenge the established paradigm, he overstated the 'death of the author' – the medieval author, as it were.[136] Instead of intertextuality, he emphasized variation in transmission as the constitutive characteristic, but he was misguided in stating that there was no concept of authorship at all when he instead could have said that there was a *different* concept of authorship. That there *was* a concept of authorship is indisputable. Why else would there have been depictions of authors?[137] Why else would there have been attributions to authors by name or misattributions by the same token?[138] Misattributions that were supposed to invoke *authority*. Can there be a concept of authority without a concept of authorship? It hardly seems possible. For there

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**136** I am, of course, referring to Roland Barthes' famous essay that was published much earlier than Cerquiglini's work but undoubtedly shaped the discourse in which Cerquiglini was later still embedded, even if Cerquiglini's argument was of a different nature. See Roland Barthes, "The Death of the Author," in: *Aspen* 5+6 (1967), online: <https://www.ubu.com/aspen/aspen5and6/threeEssays.html#barthes> (accessed 12 January 2023). For further 'postmodern' discussion of the term, see Michel Foucault, "What Is An Author?" in: *Aesthetics, Method, and Epistemology* (Essential Works of Foucault; vol. 2), ed. by James D. Faubion, transl. by Robert Hurley [et al.], New York: The New Press, 1998, 205–222 [originally lecture given in 1969]. It was not until the end of the 1990s that the "return of the author" could be announced (at least in a German context) and even then, it was a contentious issue, cf. Fotis Jannidis (Ed.), *Rückkehr des Autors: Zur Erneuerung eines umstrittenen Begriffs* (Studien und Texte zur Sozialgeschichte der Literatur; vol. 71), Tübingen: Niemeyer, 1999.
**137** See Horst Wenzel, "Autorenbilder: Zur Ausdifferenzierung von Autorenfunktionen in mittelalterlichen Miniaturen," in: *Autor und Autorschaft im Mittelalter*, ed. by Elizabeth Andersen [et al.], Tübingen: Niemeyer, 1998, 1–28. See also Christel Meier, "Ecce auctor: Beiträge zur Ikonographie literarischer Urheberschaft im Mittelalter," in: *Frühmittelalterliche Studien* 34/1 (2000), 338–392, online: <https://doi.org/10.1515/9783110242324.338>; Michael Stolz, "Die Aura der Autorschaft: Dichterprofile in der Manessischen Liederhandschrift," in: *Buchkultur im Mittelalter: Schrift – Bild – Kommunikation*, ed. by Michael Stolz and Adrian Mettauer, Berlin: De Gruyter, 2005, 67–99; and Ursula Peters, *Das Ich im Bild: Die Figur des Autors in volkssprachigen Bilderhandschriften des 13. bis 16. Jahrhunderts* (Pictura et poesis; vol. 22), Köln [et al.]: Böhlau, 2008.
**138** Pseudo-Aristoteles, Pseudo-Bonaventura, Pseudo-Methodius, the list could go on. The study of this phenomenon is called pseudepigraphy. For information on the various forms this took in the Middle Ages, see [MGH], *Fälschungen im Mittelalter: Internationaler Kongreß der Monumenta Germaniae Historica München, 16.-19. September 1986* (Schriften der Monumenta Germaniae Historica; vol. 33,1–5), Hannover: Hahn, 1988; see especially the volumes 1, 2, and 5.

to be *auctoritas*, there needs to be an *auctor*, or at least the vision of an *auctor*.[139]

What was, of course, very different, was the concept of intellectual property: To say that it did not exist would be false[140] but it certainly did not exist in the way it came to exist with the arrival of printing technologies and subsequently printing privileges[141] and later the modern copyright law.[142]

This means that in addition to a variance in transmission due to the manual production process, there was a variance in transmission due to conscious decisions taken by the scribes because they were at liberty to

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**139** See Thomas Bein, Rüdiger Nutt-Kofoth and Bodo Plachta (Eds.), *Autor – Autorisation – Authenzität* (editio / Beihefte; vol. 21), Tübingen: Max Niemeyer, 2012.
**140** I say this because it is tempting to link the concept of intellectual property to the emergence of intellectual property laws and going by that definition, there was no concept of intellectual property during the Middle Ages. However, while there was no monetized understanding of intellectual property, there is evidence that at least some authors did have a sense of intellectual ownership, only no way of enforcing it, short of putting a curse (threatening *anathema*, excommunication) on any plagiarists; on this topic see Marc Drogin, *Anathema! Medieval Scribes and the History of Book Curses*, Montclair: Allanheld & Schram, 1983. These book curses were often found in the colophon and most commonly used to fend off book thieves, but in the case of Eike of Repgow, for example, such a curse was invoked to protect against alterations of the text. The author of the *Sachsenspiegel* (c. 1220–1230) stated in the preface of the work that he was afraid that some people could add passages to the book and pervert its meaning; he also acknowledged that he would not be able to prevent that and that he would therefore cast a curse on everyone doing an injustice with the book and wishing leprosy on those who would add false content ("alle die unrechte varen, / Unde werbin an disem buche, / den bescheide ich dise vluche, / Unde die valsch hir zu triben: / die maselsucht muze in bekliben" – Eike von Repgow, *Sachsenspiegel*, ed. by Claudius von Schwerin, Stuttgart: Reclam, 1953, 16). The fact that he had written a legal text is certainly relevant for his insistence on keeping its transmission free from any unwanted and unauthorized changes.
**141** For a detailed examination of how this transitional period impacted the writing and publishing process, see the example of France as discussed in Cynthia J. Brown, *Poets, Patrons, and Printers: Crisis of Authority in Late Medieval France*, Ithaca [et al.]: Cornell University Press, 1995.
**142** For more general information on intellectual property rights and laws in a historical perspective, see Lyman Ray Patterson, *Copyright in Historical Perspective*, Nashville: Vanderbilt University Press, 1968; Ronan Deazley [et. al] (Eds.), *Privilege and Property: Essays on the History of Copyright*, Cambridge: Open Book Publishers, 2010; Benedict Atkinson and Brian Fitzgerald, *A Short History of Copyright: The Genie of Information*, Heidelberg [et al.]: Springer, 2014; Isabella Alexander and H. Tomás Gómez-Arostegui (Eds.), *Research Handbook on the History of Copyright Law*, Cheltenham [et al.]: Edward Elgar, 2016; Steven Wilf (Ed.), *Intellectual Property Law and History*, London / New York: Routledge, 2017.

shorten, lengthen, and amend the material they were copying; this could have been done to tailor a work – usually but not exclusively a textual work – to the specific context of use or for any other variety of reasons. As well as a variance in content, there was also a variance in graphical display and design of each witness, and this variance appears even greater to the modern spectator because we can collate witnesses of a work from across hundreds of years and long distances in geographical provenance.

Considering the particularities of each era, the development of different schools of editorial theory is not a surprise nor was it ever as undesirable as it might have seemed to the participants of such disputes. Still, the need for scholarly editing has not abated and neither has the need for further theoretical development.

One thought for consideration could be this: Once the definition of a 'work' as a piece of authored intellectual property falls away, it stands to reason that the materiality strongly tied to this definition in the form of the 'book' might lose part of its relevance as well. Does it matter whether something was written on a piece of parchment or carved into stone? In the case of textual transmission, there would seem to be a hierarchy of attention paid to codices and inscriptions, for example, with the study of codices arguably ranging higher in a medieval context. This statement is not meant to disparage the study of inscriptions – they are similarly subject to their own discipline[143] and have a long and rich tradition of scholarly editions in Germany.[144] Also, there are more nuances to the

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**143** Epigraphy is a *historische Hilfswissenschaft* ('auxiliary historical science'), same as codicology. For literature, see, for example, Christer Bruun and Jonathan Edmondson (Eds.), *The Oxford Handbook of Roman Epigraphy*, Oxford [et al.]: Oxford University Press, 2015, and Johannes Renz and Wolfgang Röllig, *Handbuch der althebräischen Epigraphik* (3 vols.), Darmstadt: WBG, ²2016. See also Annamaria De Santis and Irene Rossi (Eds.), *Crossing Experiences in Digital Epigraphy: From Practice to Discipline*, Berlin / Boston: De Gruyter, 2018.

**144** I mention Germany here because there is a series dedicated to inscriptions from medieval and early modern times specifically, in addition to the more common corpora of ancient Greek or Latin inscriptions. *Die Deutschen Inschriften des Mittelalters und der Frühen Neuzeit* were founded in 1934 by Friedrich Panzer, Karl Brandi, and Hans Hirsch and have worked on publishing editions of inscriptions in German-speaking territories since then, excelling 100 volumes at present; see *Die deutschen Inschriften*, ed. by the Academies of Sciences of Göttingen, Heidelberg, Mainz, München and the Austrian Academy of Sciences in Wien, Wiesbaden: Reichert, 1942–present, and, for

argument than I can fully portray here: For historical studies of the time preceding late Antiquity – before codices superseded scrolls and, more importantly for the longevity of the material, parchment superseded papyri, although we have to qualify that there are regional differences in these regards –,[145] inscriptions take on a much greater importance as conveyors of contemporary information, of course. The hierarchy of attention bestowed on historical source material is first and foremost dependent on the availability of said source material. Furthermore, it is dependent on the research question and the information that is being sought, seeing as the information found in inscriptions and codices may be very different; or, to put it another way: complementary. And lastly, to continue with that thought, the use of source material is not an either-or situation. Ideally, historians will make use of sources that are as diverse as possible, so long as they pertain to their proposed hypothesis. But – and here is where this hierarchy of attention becomes relevant for the topic at hand – the question is one of interdisciplinarity. The reason that different types of historical source material have begot different volumes of research literature is that they are not merely historical source material but of research interest in and of themselves to different disciplines. In the case of texts and scholarly editions, this research interest has been, by and large, dominated by literary studies and thus by the material deemed literary material – with the caveat that editions are still predominantly created by those with a historical interest in any of the subjects involved: philosophy, literary studies, history, musicology, et cetera. The theological interest in textual criticism with regard to biblical studies occupies its own space.[146]

I stress this seemingly mundane observation because it has consequences for the focus on scholarly editions of other materials and the

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more information, the digital version of the project, *Deutsche Inschriften Online* (DIO), <http://www.inschriften.net/> (accessed 12 January 2023); on the latter, see also Torsten Schrade, "Epigraphik im digitalen Umfeld," in: *Skriptum* 1/1 (2011), 7–11.

**145** On the topic of manuscript culture and material as well as medial changes, see, to start with, Jörg Quenzer, Dmitry Bondarev and Jan-Ulrich Sobisch (Eds.), *Manuscript Cultures: Mapping the Field*, Berlin / Boston: De Gruyter, 2014.

**146** See, to start with, Emanuel Tov, *Textual Developments: Collected Essays. Volume 4* (Supplements to Vetus Testamentum; vol. 181), Leiden [et al.]: Brill, 2019.

study of intersections between 'works' that are differently categorized. The most obvious consequence is the body of methodology or lack thereof. The more interesting consequence, however, is that it furthers the demise of the *Werkbegriff;* the definition of a 'work' that was classically author-oriented, then became text-oriented,[147] declined further in the later part of the 20th century, even in the scholarly editing practices of musicology,[148] but was never fully laid to rest because, as a German saying goes, the condemned live longer. Moving away from the author-oriented paradigm to a paradigm that acknowledged a more fluid kind of text – the kind of fluidity that Paul Zumthor memorably termed *mouvance*[149] – was already a step towards an increased level of uncertainty as to where to draw the boundaries. If a work is not the intellectual creation of an individual, or, which would be more to the point, if a work is not transmitted as the intellectual creation of an individual, what constitutes a work? In the case of texts, the exact same wording of something intellectually self-contained? But it cannot be the exact same wording, or at least it rarely is in the case of several surviving witnesses, because some variation was almost inevitable; such as orthographical variants, given the lack of standardized spelling, or copying mistakes, given the manual means of production, or semantic variants, intended to adjust a text for the individual *Gebrauchskontext*, the aforementioned context of use. What is the criterion, then – that which in modern German copyright law is called *Schöpfungshöhe* or *Gestaltungshöhe*, the threshold for originality?[150]

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**147** See Kondrup 2013 and Gunter Martens, "Das Werk als Grenze: Ein Versuch zur terminologischen Bestimmung eines editorischen Begriffs," in: *editio* 18 (2004), 175–186, online: <https://doi.org/10.1515/9783484604636.175>.

**148** Cf. Schmidt 2016, part I: "Durch die kompositorische Entwicklung im 20. Jh. dagegen ist die Idee des individuellen Kunstwerks zum Problem geworden; und man hat angesichts der Tatsache, daß zahlreiche Komponisten gänzlich andersartige und entgegengesetzte Musikkonzepte entwickelt haben, zu Recht vom Zerfall des Werkbegriffs gesprochen."

**149** Cf. Paul Zumthor, *Essai de poétique médiévale*, Paris: Éditions du Seuil, 1972, esp. 65–75.

**150** On the topic of which see Eva-Irina Gamm, *Die Problematik der Gestaltungshöhe im deutschen Urheberrecht: Unter besonderer Berücksichtigung europarechtlicher Vorgaben und der Überschneidung mit dem deutschen Geschmacksmuster-, Wettbewerbs-*

Philology found a way to keep editing, amidst this confusion, because more often than not, 'the proof is in the pudding', so to speak. There is some tacit knowledge involved in these questions, even if details of a decision might be debated. That the *New Philology* movement caused such unrest should give pause, however. This is all the more true for the fact that it never became fully clear why variants would be *the* constitutive factor in medieval works, seeing as many variants are actually of a variety that is not particularly noteworthy beyond linguistic or stemmatological studies and often rather serves as a reminder that something unified can emerge in essence despite its fragmented transmission.

### E.
### FACSIMILE REPRODUCTION

Now that we have laid out some of the basic considerations underpinning the disciplinary framework of this book by traversing a small part of this 'wide field', to speak in the manner of Fontane, it is time to return to the topic introduced at the beginning of this chapter, namely the topic of *facsimilization*. At first glance, one might be persuaded to think that this topic is actually of little relevance in the present context; facsimile *editions* have been, after all, ignored by textual scholarship for the longest time, exemplified by the attitude of Peter Robinson, noted theorist of digital scholarly editing, who states:

> Notoriously, facsimile editions in print form are of very little use to the reader, or even to scholars, whose interest (so far as it touches on the documents) is likely to be in questions of how the received text changed over time, how it was received, how it was altered, transformed, passed into different currencies.[151]

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*und Kennzeichnungsrecht* (Schriftenreihe des Archivs für Urheber- und Medienrecht; vol. 216), Baden-Baden: Nomos, 2004.
**151** Peter Robinson, "Towards a Theory of Digital Editions," in: *Variants* 10 (2013), 105–131, here 127.

In such a view on scholarly editing, there is no place for facsimiles – at least not where the *scholarship* of scholarly editing is concerned.

If we take another look at the situation, however, we find that something surprising is happening in the world of textual criticism: Few are speaking *about* facsimiles but almost everyone is speaking *of* facsimiles; 'digital facsimiles', to be exact.[152] Mats Dahlström has described this change well:

> Until recently, facsimiles have largely played the subordinate role of illustration to the transcription text, an add-on. Usually, only a few sections in the source were photographically reproduced. Now, however, almost all digital editing involves image capture, even when the editors aim for a text transcription edition. Not only can OCR turn the images into machine-readable and codeable text, the edition can also display images in full alongside the edited transcriptions. The facsimiles are then no longer just tools for internal work, but a form of publication mode.[153]

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**152** Cf. by way of example, PIERAZZO 2016, *passim*; BOOT 2009, 53f.; ALOIS PICHLER and TONE MERETE BRUVIK, "Digital Critical Editing: Separating Encoding from Presentation," in: *Digital Critical Editions*, ed. by Daniel Apollon, Claire Bélisle and Philippe Régnier, Urbana [et al.]: University of Illinois Press, 2014, 179–202, here 195f.; KATHRYN SUTHERLAND and ELENA PIERAZZO, "The Author's Hand: From Page to Screen," in: *Collaborative Research in the Digital Humanities*, ed. by Willard McCarty and Marilyn Deegan, London / New York: Routledge, 2012, 191–212, here 203; or, with regard to the text-image-editor by *TextGrid*, YAHYA AHMED ALI AL-HAJJ and MARC WILHELM KÜSTER, "The Text-Image-Link-Editor: A Tool for Linking Facsimiles and Transcriptions, and Image Annotations," in: *Literary and Linguistic Computing* 28/2 (2013), 190–198, online: <https://doi.org/10.1093/llc/fqs067>. See also the section on "Facsimiles and Document-Centric Editing" by Elena Pierazzo in *Creating a Digital Scholarly Edition with the Text Encoding Initiative*, ed. by Marjorie Burghardt, 2017, online: <https://www.digitalmanuscripts.eu/digital-editing-of-medieval-texts-a-textbook/> (accessed 12 January 2023). In the literature about digital scholarly editing, aside from DAHLSTRÖM 2019, Patrick Sahle counts among the few who have actively discussed the phenomenon of facsimiles in editing, tracing the debate of their advantages and disadvantages in the textual scholarship of the past, cf. SAHLE 2013a, 220–224. If we go further back in time – with regard to digital scholarly editing, not scholarly editing in general –, we can also find articles such as KEVIN KIERNAN, "Digital Facsimiles in Editing: Some Guidelines for Editors of Image-based Electronic Editions," in: *Electronic Textual Editing*, ed. by John Unsworth, Lou Burnard, and Katherine O'Brien O'Keeffe, New York: Modern Language Association, 2006, 262–268, online: <https://ebeowulf.uky.edu/kiernan/MLA-TEI/> (accessed 12 January 2023).
**153** DAHLSTRÖM 2019, 203.

With regard to the previous sections of this chapter, we might speak of a *great convergence* here. Scholarly editing practices, traditionally rooted in the transcription, i.e. the notational reproduction, of texts, are converging with practices of digitizing the very source materials that scholarly editors would have sought to reproduce otherwise; digitizing, in this case, usually meaning imaging and little besides, since the point of view is still document-centric and text-focused. As Dahlström points out, editors are interested in a "reliable representation of these sources"[154] and digital facsimiles "offer an enhancement of that purpose."[155] He furthermore maps a few areas of inquiry that should find more discussion in the future.[156] Perhaps they can be condensed into the obviously highly pertinent question as to what criteria a digital 'facsimile' must satisfy to count as a facsimile – that is to say, to be similar to the original in some ways for some purposes and most importantly similar *enough* – rather than a mere 'image' of varying identification potential. If we were to formulate a minimum requirement, then we could be so bold as to say that a facsimile should be identifiable as a reproduction of the 'original' that maintains or reflects and, in any case, does not actively distort the core (visual) qualities of said 'original'. That would still be a fairly loose definition.

In contrast, a facsimile edition in the printed world is understood to be a three-dimensional reproduction of a manuscript that mirrors not only the appearance of the manuscript but its dimensions, colours, tactile feeling, and materiality, all in very specific ways that may account for the pricing policy of such reproductions. However, few involved in these processes of reproduction have ever sat down and committed these ideas pertaining to the requirements for facsimile editions to paper,[157] or

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**154** Ibid., 197.
**155** Dahlström 2019, 197.
**156** One point that he touches on, for example, is the *manipulation* of digital 'facsimiles', raising the issue of authenticity; cf. ibid., 199: "I mentioned that digital facsimiles are regularly edited and manipulated. For instance, colour is adjusted, images which have been warped or distorted in the capture phase are adjusted, and the background is often manipulated digitally in the post-processing phase."
**157** Giovanni Scorcioni, the founder of Facsimile Finder, is an exception to this and has discussed the process of producing a facsimile in Giovanni Scorcioni, "Distortion in Textual Object Facsimile Production: A Liability or an Asset?" in: *Textual Distortion*,

at least not to paper that would have found widespread circulation in academic literature concerned with scholarly editing.[158] Neither has a comprehensive history of the practices and techniques of facsimilization been written.[159] Case studies exist that investigate the publication and reproduction history of individual manuscripts or works, such as from Madeline H. Caviness and Hiram Kümper,[160] and Andrea Worm has examined facsimilization practices in early modern history[161] but little

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ed. by Elaine Treharne and Greg Walker, Suffolk: Boydell & Brewer, 2017, 117–129, online: <https://doi.org/10.1017/9781787441538.009>. Interestingly, apparently unaware of the naming conventions in the digital humanities, he writes: "Indeed, the expression 'digital facsimile' has not been used, because using the word 'facsimile' for digital images would itself be a distortion of the truth. The word 'facsimile', from Latin, means 'made similar'. Consistency with the etymology of the word prevents digital images from being considered facsimiles. Since a facsimile is something that is as close as possible to the object it represents in all its aspects, the idea of a 'digital facsimile' would defy such definition." (Ibid., 128.)

**158** For the discussion of facsimile editions in 'traditional' scholarly editing discourses, insofar as such discussions exist, see Hans Zeller, "Die Faksimile-Ausgabe als Grundlagenedition für Philologie und Textgenetik: Ein Vorschlag," in: *Textgenetische Edition* (editio / Beihefte; vol. 10), ed. by Hans Zeller and Gunter Martens, Tübingen: Niemeyer, 1998, 80–100, here esp. 89–91, online: <https://doi.org/10.1515/9783110939996-005>.

**159** One of the most pertinent articles remains Thomas Hilka, "Zur Terminologie und Geschichte der Faksimilierung," in: *Bibliothek: Forschung und Praxis* 9/3 (1985), 290–299, online: <https://doi.org/10.1515/bfup.1985.9.3.290>, in particular with regard to a broad survey of changing technologies of facsimilization; in ibid., 291, fn. 5, he lists further literature, some of which, like a thesis about facsimile print in the 19th century, never saw the light of day (i.e. was never made available to the public). The contributions by Manfred Kramer should also be noted here, especially Manfred Kramer, "Das Faksimile: Versuch zur Deutung eines Phänomens der modernen Buchproduktion," in: *Librarium: Zeitschrift der Schweizerischen Bibliophilen-Gesellschaft* 23/2 (1980), 82–95, issue online: <http://doi.org/10.5169/seals-388342>, and Manfred Kramer, "Ein Faksimile ist keine Handschrift: Zur Schwierigkeit des Vergleichs von Wiedergabe und Original," in: *Librarium: Zeitschrift der Schweizerischen Bibliophilen-Gesellschaft* 29/3 (1986), 203–207, issue online: <https://doi.org/10.5169/seals-388467>. See also Weitenkampf 1943. With regard to the facsimilization of historical maps, see Cornelis Koeman, "An Increase in Facsimile Reprints," in: *Imago Mundi* 18 (1964), 87–88. It stands to reason that further relevant writings exist in other languages, older literature, and literature not as easily researched.

**160** See Madeline H. Caviness and Hiram Kümper, "An Early Eighteenth-Century Attempt to Publish a Facsimile of Two Sachsenspiegel Manuscripts," in: *Manuscripts Changing Hands*, ed. by Corine Schleif and Volker Schier, Wiesbaden: Harrassowitz, 2016, 283–351.

**161** See Andrea Worm, "Mittelalterliche Buchmalerei im Spiegel neuzeitlicher Publikationen," in: *Visualisierung und Imagination: Materielle Relikte des Mittelalters in bildlichen Darstellungen der Neuzeit und der Moderne* (Göttinger Gespräche zur Ge-

long-form research can be found when it comes to the late 19th century and early 20th century which is when rapidly improving types of photographic facsimilization would appear to flood the book market, which we will discuss in a moment's time.[162] Dahlström tentatively dates the early use of facsimiles in scholarly editions into the 1920s, referencing a facsimile edition of the *Codex Argenteus* from 1927.[163] That edition was prepared for the 450th anniversary of the University of Uppsala.[164]

If we apply Dahlström's criterion for singling out this facsimile edition as an early use of facsimiles in scholarly editing, then we should engage with the academic conversation offered by him and move the timeline back further to strengthen his point that facsimile editions "have a long history in scholarly editions"[165] or, I would amend, in scholarly contexts, i.e. being produced with scholarly diligence or interest. It is not possible to give a full account here but some aspects shall be highlighted.

First of all, facsimilization practices existed before photographic reproduction. An argument can be made that facsimilization – as a book reproduction that is mechanized to a certain extent, producible in more than one item, and 'true to the original' insofar as it can be – originates together with printing practices in the 15th century when printers closely adhere to and copy the layout and design of handwritten manuscripts. An obvious example for this are the block-book versions of the *Biblia*

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schichtswissenschaft; vol. 25), ed. by Bernd Carqué, Daniela Mordini and Matthias Noell, Göttingen: Wallstein, 2006, 153–214.

**162** At first glance, DAVID MCKITTERICK, *Old Books, New Technologies: The Representation, Conservation and Transformation of Books Since 1700*, Cambridge: Cambridge University Press, 2013, would appear to be a comprehensive survey, but none of the examples listed on the following pages in this chapter are to be found in it; except for a few mentions of bookseller Bernard Quaritch and photographer William Griggs. See ibid., 281 and 284, for the index listings of Griggs and Quaritch. For the examples McKitterick relates with regard to early photographic reproductions of manuscripts, see MCKITTERICK 2013, 114–138.

**163** A digital version of this facsimile can be found online, provided by the University Library of Uppsala; see *Codex argenteus Upsaliensis: Jussu Senatus Universitatis phototypice editus*, Upsaliæ: Societas Malmö ljustrycksanstalt, 1927, Sv. Biblar. Got. fol, <https://nbn-resolving.org/urn:nbn:se:alvin:portal:record-173610>.

**164** Cf. the information provided by the University of Uppsala, <https://www.ub.uu.se/about-the-library/exhibitions/codex-argenteus/printed-editons/facsimile-edition/> (accessed 12 January 2023).

**165** DAHLSTRÖM 2019, 203.

*pauperum* which copy the picture cycles of the typological work along-side the text.[166] These were realized with woodcuts. Even if we do not believe them to be in the same category as modern facsimile prints, given that they obviously look different from the manuscript illustrations they are inspired by, we may take note of the fact that these block-books themselves were reproduced in facsimile print in the early 20th century, such as by Paul Heitz and Wilhelm Ludwig Schreiber in 1903.[167] (See **FIGS. 3** and **4**.)

In fact, there would seem to be countless examples of facsimile or 'facsimile-similar' reproductions before 1927 which arise from scholar-ly interest or are accompanied by scholarly commentary. In 1624, at-tempts are made to facsimilize the *Vergilius Vaticanus* (Cod. Vat. lat. 3225, Rome) with copperplate engraving.[168]

In 1697, Heinrich Günther von Thülemeyer publishes a facsimile of the *Tractatio de Bulla aurea* which adheres closely to the original in for-mat, script, and even line breaks, with one page being a copper engrav-ing true to the original.[169] In 1818, C. M. Engelhardt publishes his well-known hand-traced facsimile of the miniatures in the *Hortus deliciarum*,

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**166** An example for this is the Xylo-5 in the Bibliothèque nationale de France, Paris, c. 1480–1485, <https://gallica.bnf.fr/ark:/12148/bpt6k850504w>.

**167** Cf. Paul Heitz and Wilhelm Ludwig Schreiber (Eds.), *Biblia pauperum: Nach dem einzigen Exemplar in 50 Darstellungen (früher in Wolfenbüttel, jetzt in der Bi-bliothèque nationale). Mit einer Einleitung über die Entstehung und Entwicklung der Biblia pauperum unter besonderer Berücksichtigung der uns erhaltenen Handschriften von W. L. Schreiber*, Strasbourg: Heitz, 1903. This edition includes 50 plates, 29 text illustrations, and 1 *Lichtdrucktafel* ('phototype plate'), cf. the catalogue of the publisher contained in Engelbert Baumeister and Paul Heitz (Eds.), *Einblattdrucke des fünf-zehnten Jahrhunderts (40): Formschnitte des fünfzehnten Jahrhunderts in den Samm-lungen des Fürstlichen Hauses Oettingen-Wallerstein zu Maihingen*, Strasbourg: Heitz, 1913, l, online: <https://doi.org/10.11588/diglit.50934#0077>; cf. ibid., k–l for the very interesting list of other facsimile reproductions by the publisher, some of which were realized with *Lichtdruck*, some with *Hochätzung* ('etching in relief'), some additionally *handkoloriert* ('coloured by hand'), and so on. In that list from one publisher alone, we find over 40 facsimile prints before the year 1913, many of which already contain pho-tographic *Lichtdruck* facsimiles.

**168** Cf. Frank 1980, 84. As both Frank and Hilka note, the partial facsimilization of one page of this manuscript in the late 17th century by Jean Mabillon later aided in the textual reconstruction of lost text, cf. ibid. and Hilka 1985, 295.

**169** Cf. Frank 1980, 87, and Hilka 1985, 295. For a digitization of this print, see Hein-rich Günther von Thülemeyer, *Tractatio de bulla aurea, argentea, plumbea et cerea in genere, nec non in specie de aurea bulla Caroli IV. imperatoris*, Frankfurt am Main:
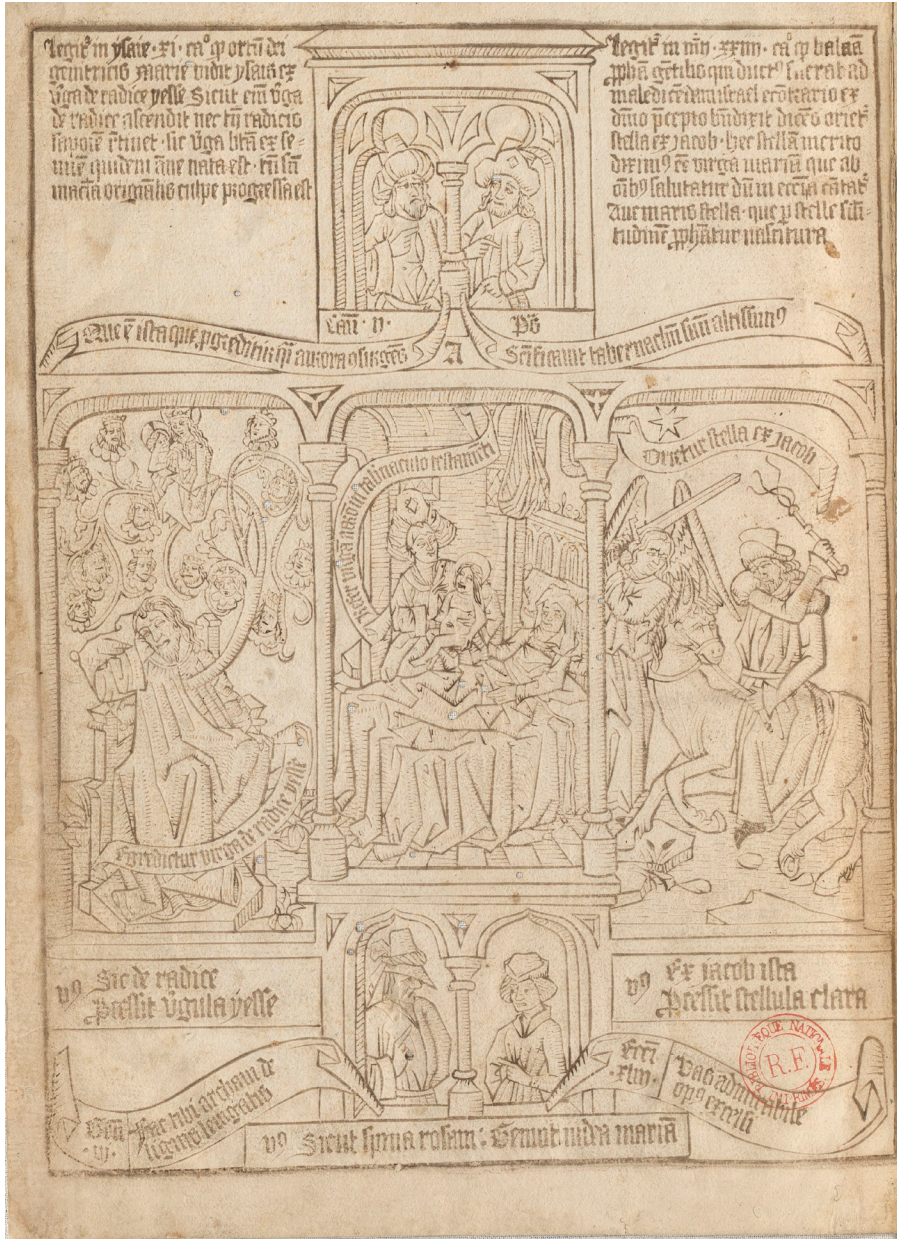
**FIG. 3:** Typological schema from the *Biblia pauperum* picture cycle, c. 1480–1485; from Xylo-5, Bibliothèque nationale de France, Paris, <https://gallica.bnf.fr/ ark:/12148/bpt6k850504w/> (PD) [first schema, unpaginated].

**FIG. 4:** Typological schema from the *Biblia pauperum* picture cycle, c. 1480–1485; from the facsimile reprint of the xylographic BNF Paris Xylo-5 by Heitz / Schreiber 1903 [first schema, unpaginated].

which we will discuss further in **CHAPTER V**.[170] In 1873 – and this is where it gets interesting for those who are primarily interested in photographic facsimile reproduction – Anton Frind, canon in Prague, commissions the publication of a *Lichtdruck* ('collotype' or 'phototype') facsimile of Alexander Minorita's *Expositio in Apocalypsim* to celebrate the 900th anniversary of the diocese of Prague. Since phototype prints only begin to become widespread in the 1870s and 1880s, that reproduction must be one of the earliest phototypical publications of a medieval manuscript.[171] It is, at the very least, the first reproduction of this type undertaken by the court photographer of Prague, as a biographer of Anton Frind informs us in 1883.[172]

Other facsimile publications are similarly motivated by anniversaries as in Prague and later Uppsala: In 1887, the *Codex manesse* is published as a *Lichtdruck* facsimile by Franz Xaver Kraus to commemorate the 500th anniversary of the University of Heidelberg.[173] In 1889, 38 facsim-

Bencard, 1697, held by the Staatliche Bibliothek, Regensburg, 999/2Jur.1010, <http://mdz-nbn-resolving.de/urn:nbn:de:bvb:12-bsb11057367-8>.

**170** See C. M. ENGELHARDT (Ed.), *Herrad von Landsperg [...] und ihr Werk, Hortus deliciarum: Ein Beytrag zur Geschichte der Wissenschaften, Literatur, Kunst, Kleidung, Waffen und Sitten des Mittelalters*, Stuttgart [et al.]: Cotta, 1818, <http://catalogue.bnf.fr/ark:/12148/cb419048381>.

**171** Processes of chromolithography and subsequently photolithography are in use earlier. As Hilka relates, upon the first pioneering works of photographic manuscript reproductions being performed in England by William H. Fox Talbot in the 1840s, and circulated privately in 1840, head librarian Friedrich Wilhelm Ritschi (1806–1876) from Bonn develops a systematic plan for the facsimilization of entire codices and presents it to the assembly of philologists in Gotha on 30 September 1840; cf. HILKA 1985, 298. These plans are not realized and it is only the invention of *Lichtdruck* which finally "allows for a true flood of very good facsimile editions in hitherto unknown quality" (HILKA 1985, 299, original: "Die Erfindung des Lichtdrucks hat eine wahre Flut von sehr guten Faksimileausgaben in bis dahin nicht gekannter Qualität ermöglicht.").

**172** Cf. [s.n.], *Der Episcopat der Gegenwart in Lebensbildern dargestellt: Dr. Anton Ludwig Frind, Bischof von Leitmeritz († 28. Oktober 1881)*, Würzburg / Wien: Leo Wörl, 1883, 14: "Aus dem gleichen Anlasse unterzog er sich der Aufgabe, einen aus dem 13. Jahrhundert stammenden illustrirten [sic!] Kommentar über die Apokalypse, dessen Manuskript in der Kapitelbibliothek sich vorfindet, auf Kosten des Kapitels in Phototypie herauszugeben: ‚Scriptum super Apocalypsim cum imaginibus'. Es war dies das erste Beispiel einer Vervielfältigung auf phototypischem Wege, welche vom Prager Hofphotographen H. Eckert durchgeführt wurde."

**173** See FRANZ XAVER KRAUS (Ed.), *Die Miniaturen der Manesse'schen Liederhandschrift. Im Auftrag des Großherzoglich Badischen Ministeriums der Justiz, des Kultus und Unterrichts nach dem Original der Pariser Nationalbibliothek in unveränderlichem*

ile plates of the *Ada-Evangeliar* are published by Karl Menzel et al.[174] Karl Lamprecht, who is among the editors, relates in some detail how the plates were made: the Ada manuscript photographed in the *Reichs-druckerei* Berlin in 1886; the cover photographed by the court photographer Anselm Schmitz in Cologne; photographs of manuscripts in Vienna, Aachen, Bamberg, Paris, Abbeville, London, Epernay, and Kremsmünster made by the companies *Angerer und Goeschl*, *Hammers*, *B. Hauf*, *Sauvanaud*, *Praetorius*, *Paulus,* and *Merfeder;* phototype printing done by the *Reichsdruckerei* in Berlin; chromolithographic plates by the lithographic institute of Wilhelm Greve in Berlin.[175] I only recount this here to illustrate that no expenses or labour seem to have been spared and that there was furthermore expertise in how to produce these photographic facsimiles in a scholarly context, or at least a willingness to undertake the effort to prepare such publications. One could, of course, speculate whether such projects might have been influenced by socio-political undercurrents of the time, by a rediscovery of cultural heritage and the promotion thereof. We find a similar enthusiasm to photographically facsimilize everything from medieval manuscripts to textiles from India when we look at English photographer William Griggs and his collaborations with bookseller and antiquarian Bernard Quaritch who even produces a facsimile collection of book bindings in 1889 (see **FIG. 5**).[176]

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*Lichtdruck herausgegeben*, Strasbourg: Trübner, 1887. For a digitized version of this facsimile of Cod. Pal. germ. 848, see <https://doi.org/10.11588/diglit.3821>.

**174** See Karl Menzel [et al.] (Eds.), *Die Trierer Ada-Handschrift. Mit achtunddreissig Tafeln*, Leipzig: Alphons Dürr, 1889. For a digitized version of this facsimile of Hs 22 from the city library of Trier, see <https://archive.org/details/dietriereradahan00menz>.

**175** Cf. the note by Karl Lamprecht ahead of the plates section, ibid., 123.

**176** See Bernard Quaritch (Ed.), *A Collection of Facsimiles from Examples of Historic or Artistic Book-Binding, Illustrating the History of Binding as a Branch of the Decorative Arts*, London: Quaritch, 1889, online: <https://archive.org/details/collectionoffacs01quar/>. See also Bernard Quaritch (Ed.), *Examples of the Art of Book-Illumination During the Middle Ages. Reproduced in Facsimile*, London: Quaritch, 1889, online: <https://archive.org/details/examplesofartofb00quar/>, and Bernard Quaritch, *Palæography: Notes Upon the History of Writing and the Medieval Art of Illumination. Extended from a Lecture, delivered at a Conversazione of the Sette of Odd Volumes, at the Galleries of the Royal Institute of Painters in Water Colours, 12th December, 1893*, London: Quaritch [privately printed], 1894, online: <https://archive.org/details/palographynote00quarrich/>, which also contains photographic facsimiles by Williams Griggs – as with the other cited facsimile prints by Quaritch, all in colour. William Griggs

Quaritch's Illustrations, No. 41.    Briggs fecit 1889.

ANCIENT BOOK-COVER IN GILT METAL.

A plaque of copper gilt bearing figures of God the Father and the symbols of the Evangelists in repoussé and chiselled work, with crystals at the angles.    Probably of the twelfth century.

Affixed to a fifteenth-century MS. " Officia sororum ordinis beati Augustini."    Small folio.

**FIG. 5:** Example of a facsimile of book binding; from Bernard Quaritch (Ed.), *A Collection of Facsimiles from Examples of Historic or Artistic Book-Binding, Illustrating the History of Binding as a Branch of the Decorative Arts*, London: Quaritch, 1889, plate 100, online: <https://archive.org/details/collectionoffacs01quar/>.

From the 1890s onwards, photographic facsimile prints exponentially increase in volume to the point where it makes no sense to even begin to list them all here.

What is important and what this should show is that as soon as a new technology is available, scholars, publishers, antiquarians, and others use it to *reproduce* and *present* medieval manuscripts and similar holdings of archives and libraries to the public. What is also salient, although by no means conclusive, given this brief survey, is that many of the manuscripts that were thus reproduced seem to have been *illuminated* manuscripts; indeed, often only the miniatures and pictures seem to have been reproduced, with the textual component of the work, or in this context rather *object,* receding behind the images.

Scholarly editions for text, facsimile editions for pictures? That would be too simple. But the question leads us back to where we started since it reminds us that the pictorial parts of works have not found much consideration in the edition of such works at all, should they have been text-image works where the textual parts were deemed worthy of a scholarly edition. Neither have they found consideration in the emerging discourse about digital facsimiles. In order to understand some of the fundamental conditions of *reproducibility* that we will have to consider as it relates to visual materials, we should turn to another example: the Alsatian workshop of Diebold Lauber.

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was, among other reproductions, also responsible for a photo-lithographical facsimile of Shakespeare's *Hamlet* in 1880 (as well as a number of other works by Shakespeare), see William Griggs (Ed.), *Shakspere's Hamlet: The Second Quarto, 1603. A Facsimile in Photo-Lithography by William Griggs, for 13 Years Photo-Lithographer to the India Office; with Forewords by Frederick J. Furnivall, M. A., Founder and Director of the New Shakspere Society, etc.*, London: William Griggs, 1880. As for the mentioned photo-lithographic 'facsimilization' of Indian textiles, see [s.n.], *Illustrations of the Textile Manufacturers of India*, London: Science and Art Department of the Committee of Council on Education, South Kensington Museum, 1881, online: <https://archive.org/details/CAI1057660001Images/>. William Griggs invented a process of photo-lithograpy and was associated with the India Office for many years. On his person and more information on the reproductions he produced as far back as the 1860s, see Frank Herbert Brown, 'Griggs, William,' in: *Dictionary of National Biography* (1912 supplement), ed. by Sidney Lee, London: Smith, Elder & Co., 1912, 171f.

## F.

### SCHOLARLY EDITIONS BEYOND TEXT

We do not need to discuss Diebold Lauber's workshop in great detail. Its mere existence refutes Goodman's reproducibility theory insofar as it relates to his work definition. But to elaborate: In the 15th century, Diebold Lauber ran a workshop in Hagenau in Alsace where he and his employees – writers and illustrators – mass-produced affordable illustrated manuscripts for several decades; a commercial manufacture that had its own product range, meaning that it produced several manuscripts of the same work, such as the four manuscripts of the German *Elsässische Legenda aurea* translation which have survived from this particular line of production.[177] (See **FIGS. 6** and **7**.)

Since the manuscripts were manually produced, and since different writers and illustrators worked in the production of the manuscripts over the years, no item sold by Diebold Lauber was, of course, identical to another. There is both pictorial as well as textual transmission variance.[178] If we were to create a traditional edition of the *Elsässische Legenda aurea*, i.e. if we were to create an edition of the *text* of the *Elsässische Legenda aurea*, we would regard these different manuscripts not

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[177] For general information on Diebold Lauber and the illustrated manuscripts that were produced in his workshop, see LIESELOTTE E. SAURMA, *Spätformen mittelalterlicher Buchherstellung: Bilderhandschriften aus der Werkstatt Diebold Laubers in Hagenau* (2 vols.), Wiesbaden: Reichert, 2001, and CHRISTOPH FASBENDER (Ed.), *Aus der Werkstatt Diebold Laubers* (Kulturtopographie des alemannischen Raums; vol. 3), Berlin / Boston: De Gruyter, 2012. See furthermore the information provided by the *Biblioteca Palatina digital* at the University of Heidelberg, <http://digi.ub.uni-heidelberg.de/de/bpd/glanzlichter/oberdeutsche/lauber.html> (accessed 12 January 2023), and the project *Diebold Lauber digital* by the University of Leipzig which is a portal detailing what is known about the writers, illustrators, produced manuscripts, watermarks, as well as the known literature about this topic, cf. <http://wirote.informatik.uni-leipzig.de/mediavistik/> (accessed 12 January 2023).

[178] For a comparison of two manuscripts of the *Elsässische Legenda aurea*, see STEPHANIE HALLINGER, *Text und Bild in der elsässischen Legenda aurea: Der Cgm 6 (Bayerische Staatsbibliothek München) und der Cpg 144 (Universitätsbibliothek Heidelberg)* (Schriftenreihe Schriften zur Mediävistik; vol. 22), Hamburg: Kovač, 2015. See also KONRAD KUNZE, "Überlieferung und Bestand der elsässischen Legenda Aurea: Ein Beitrag zur deutschsprachigen Hagiographie des 14. und 15. Jahrhunderts," in: *Zeitschrift für deutsches Altertum und deutsche Literatur* 99/4 (1970), 265–309.

as we would regard different printed copies of the same book; we would regard them as diverging work witnesses. And thus we would collate them. But what about the illustrations? Are they not all work witnesses of the picture programme of the *Elsässische Legenda aurea*? Are we to regard them as forgeries or imitations? Imitations of what? The first illustration? There is no 'original'. There are only 'copies'. Even if the illustrators at the workshop used a template, that hardly seems as if it would qualify for Goodman's theory – then, the template would have to be the artistic original that could not be reproduced without losing something of the work 'aura' or 'essence' which, as much as Goodman projects a sober language, is what his semiotic way of delimiting a 'work' still parallels. Such a notion is, in the given context, patently absurd. Note that this is not an argument to say that Goodman's theory of reproducibility and the way it ties into his allographic-autographic differentiation is *wrong;* its popularity might be explained by a certain self-evident quality, the same quality that saw Panofsky make the remarks cited near the beginning of this chapter. However, its applicability in some circumstances, especially in those that most are familiar with, from present or otherwise historically recent times, does not automatically justify claims of a universality of such a theory. Moreover, the issue does not lie with Goodman's semiotic theory as to what signs are copyable or not, or at least it does not primarily lie there, but with the way it separates picture *works* from text *works* on a basis of *notational integrity* that is deeply flawed.[179]

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**179** In the 1970s, Ralls already pointed out many issues with Goodman's theory that we cannot address in more depth here, such as: "[C]opies of the same poem, novel, or play can vary enormously, while still being of the very same work. Work-identity survives through printer's error [...], orthographical vagaries [...], textual uncertainty whether minor [...] or major [...], and even radical textual reconstruction (Lachmann's *Lucretius*). Identification itself calls for the exercise of critical judgment: It is highly questionable whether there are *any* determinate textual criteria of the identity of a literary work." (RALLS 1972, 10.) The fact that Ralls' criticism is rooted in an awareness of editorial issues indicates that Goodman's theory and editorial theory might actually be at cross purposes, and Dahlström hints at something similar when he states: "What is left out of this equation is obviously the problem of variants and versions. Goodman only talks about exact notations and correct instances, but we all know that there can be minor or major textual differences between two texts which do not in any way prevent us from identifying them as instances of the same work of art. The whole discipline of textual

**FIG. 6:** Saint Erhard in a manuscript of the *Elsässische Legenda aurea* from Lauber's workshop, c. 1435–1444; from 2° Cod 158, Staats- und Stadtbibliothek, Augsburg, f. 89r, <https://nbn-resolving.org/urn:nbn:de:bvb:37-dtl-0000000249> (CC BY-NC-SA 4.0).

**FIG. 7:** Saint Erhard in a manuscript of the *Elsässische Legenda aurea* from Lauber's workshop, c. 1434–1440; from Ms. germ. fol. 495, Staatsbibliothek zu Berlin – Preußischer Kulturbesitz, Berlin, f. 59r, <http://resolver.staatsbibliothek-berlin.de/SBB000059A700000000> (PD).

Even this would, perhaps, not constitute a significant issue if textual scholars were not wont to evoke Goodman in discussions involving artwork, such as Hans Walter Gabler in his review of Paul Eggert's *Securing the Past* (2009):

> The work of the sculptor or painter, and beyond (say) of the architect, is expressed by way of, and thereby always inseparably tied to, its material manifestation in the one unique original that is its outcome. In terms of its crafting by the hand of its originator, it is an autograph. The work of art in language, or indeed any meaningful language collocation, by contrast, does not in essence so exist. It is allographic.[180]

This view is common and it might seem applicable to, say, Picasso, but where does that leave the illustrators of Diebold Lauber's workshop? One supposes they were not 'artists'? That the illustrations in the manuscripts are not 'art' even though they are pictorial and unique (at the very least in terms of their execution, even if not their conception)?

What Gabler is interested in in that particular article is the definition of 'author' and 'authorship' – and since Eggert, in the book under review, proposes 'subtilising authorship' in a postmodern vein, using Rembrandt's œuvre as an example whereby the term 'Rembrandt' as applied to a painting encompasses a collective ideational history and sphere around a material body of work rather than merely the man who painted the painting,[181] Gabler's response is an understandable reminder of a fundamental nature of and difference between the origination and reproducibility of visual and textual works. Even if the word 'Rembrandt'

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criticism and scholarly editing, of course, is largely devoted to this problem and operates at a higher level of complexity than this." (DAHLSTRÖM 2019, 205.)

**180** HANS WALTER GABLER, "Thoughts on Scholarly Editing: A Review Article occasioned by Paul Eggert, Securing the Past. Conservation in Art, Architecture and Literature," in: *Journal of Literary Theory* (2011), [1–16], here 4, online: <http://www.jltonline.de/index.php/reviews/article/view/307/893> (accessed 26 February 2023), PDF: <http://www.jltonline.de/index.php/reviews/article/view/307/891> (accessed 25 August 2023).

**181** Cf. PAUL EGGERT, *Securing the Past: Conservation in Art, Architecture and Literature*, Cambridge: Cambridge University Press, 2009, esp. 109–130.

exceeds the attribution of authorship normally meant by authorship –
and there is no reason to doubt that it, indeed, does –, that would not
necessarily indicate that authorship needs to be redefined; rather, per-
haps, that that which Eggert describes needs another term of its own.

But there is a fault here that both Gabler and Eggert seem to sense in
their attempts to rectify it: That fault lies in the focus on 'author' and
'authorship' as the parameters with which to determine the scope and
identity of an intellectual work and if there is a merit to the *New Philol-
ogy* movement, putting this tether to the torch has to count among its
greatest. Authorship can be a useful parameter under certain conditions;
it can be redefined under certain conditions; and it is, in itself, of utmost
importance; but it is not the sole hinge between the nebulous world of
ideas and their concrete manifestation in the form of a 'work'.

Paul Zumthor, as is well-known, defined a work in the medieval con-
text not as the archetype in a chronological stemma but as the sum of all
surviving witnesses: "la collectivité des versions en manifestant la maté-
rialité."[182] If we were to apply this understanding to visual works, *work*
variations would appear, such as in the variant illustrated manuscripts
from Diebold Lauber's workshop, regardless of the issue of notational
reproducibility and individual authorship or rather creatorship.

Having arrived at this conclusion does not free us from considering
the specifics of pictorial transmission variance and how we might grasp
its cohesion or lack thereof (and how we might delineate between
different works when notation falls away entirely as a characteristic).
It also does not free us from considering visual works from other times
and of a different medial manifestation, since this very brief look at a
different type of picture work than the one imagined by Gabler and
Eggert in their discussion throws the contingency of such questions into
sharp relief. Neither should we fall into the trap of assuming universal
truths about 'the nature' of 'the' artwork, already warned against by
Panofsky and referenced earlier in this chapter, nor should we begin a
conceptual modelling process based on one example. The preliminary
conclusion that we have arrived at now is an important first step because

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**182** Zumthor 1972, 73.

it changes the conversation; I dare say that we might discard Goodman's influence on this point. But there is still much to develop in response to the gap that the rejection of a semiotic work definition leaves us with, in this particular circumstance of scholarly editing concerns. One might be tempted to take the position that this question matters little from a pragmatic point of view: Editors will know what they want to edit, regardless of arbitrary work definitions. Editions do not have to be editions of works and works can encompass anything an editor might view as within their purview. This position forgets, however, that the issue of the work definition has consequences beyond the scope and subject of an edition. It necessarily impacts the components of an edition and how they relate to each other. What we might regard as a witness, what a witness might contain. That is why we have to pursue this line of thought if we are at all interested in the consideration of principles.

This chapter about (inter-)disciplinary starting points may have, at times, seemed to follow the motion of a pendulum, swinging back and forth, from the history of the humanities to the theory of the digital humanities. To a certain degree, this unmoored drifting, while not aimless, will follow us throughout the book. I would prefer it to be different but there is only so much that I am capable of tightening without losing the process that led me to my arguments – in that sense, the structure of this chapter is a direct expression of the search that humanists in the digital humanities might undergo when looking for the academic tradition that precedes their own reasoning and has to be built upon. Before we can continue with our investigation of variant visual works and how they may be folded into scholarly editing discourses – which is, after all, a matter of modelling –, we will have to deepen the conversation about modelling as a method first, which is a matter so fundamental that it requires a chapter of its own, having now mapped some of the foundational questions in our inquiry.

To end with, I want to quote Panofsky once more; primarily because his words strike me as topical but also because they speak to a future of our own making:

> I wish and hope that we will learn to produce, and
> actually produce, 'better' facsimile reproductions as
> time goes on, and that we will – not in spite of but

because of this – increasingly develop the skill need-
ed to both distinguish them from the originals and to
view them – again, not in spite of but because of this
– with a sense of benefit and as the case may be even
with joy. Should it ever come to pass that n o  o n e
should be capable of that distinction anymore, that
the work of man and the work of machine should
indeed have become i d e n t i c a l – then it would not
be so much the art u n d e r s t a n d i n g that would be
dead but the a r t itself; and it would not have died
from its reproduction.[183]

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**183** Panofsky 1930/1998, 1088f., original: "Ich wünsche und hoffe, daß man immer
‚bessere' Faksimilereproduktionen herzustellen lerne und herstelle, und daß – nicht
trotzdem, sondern gerade deswegen – in immer zunehmendem Maße die Fähigkeit sich
ausbilde, sie von den Originalen zu unterscheiden und sie – abermals nicht trotzdem,
sondern deswegen – mit Nutzen und gegebenenfalls mit Genuß zu betrachten. Sollte es
jemals dazu kommen, daß n i e m a n d mehr zu dieser Unterscheidung fähig wäre, daß
Menschenwerk und Maschinenwerk tatsächlich i d e n t i s c h geworden wären – dann
wäre nicht sowohl das Kunst-Verständnis tot als vielmehr die K u n s t; und sie wäre
dann nicht an der Reproduktion gestorben." (Emphasis in the original.)