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Of digital surrogates and immaterial objects: the (digital) future of the Iberian manuscript in textual editing

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ABSTRACT

The turn to materiality as an increasingly important element of the study of the Middle Ages both emerges from and responds to a range of intellectual and epistemological trends over the last forty years or so. One field which might provide fertile ground for the centering of such questions is precisely that of digital textual editing, both because of advances in the theory of critical editing and because the digital mode may offer alternative spaces to accommodate material aspects of manuscript culture to those of printed editions. In what follows then, I aim to review what digital critical editing of iberomedieval works has done so far, and what the future might hold for materiality in digital iberomedievalism.

Contexts

If the study of textual culture in the Middle Ages was characterized (rather unfairly and inaccurately, many would say) by a form of philological analysis whose raw material and ultimate product was the monumental printed edition, three recent development have created a new context for a form of editing in which materiality might be made more central.[1] The privileging of printed text began to be troubled by the first trend, and it was one which came precisely from the field of medieval history. The emergence of Marxist approaches to history, in the form of the Annales school in France and the development of history from below in the study of the peasantry, especially in England, gave rise to an undermining of the grand narrative of histories encoded in printed versions of canonical texts. A concomitant realization of the importance of allied disciplines, especially archaeology with its insistence on the importance of material cultures and indeed paleography and book history, helped to create an environment in which the raw materials of medieval textuality could cease to be considered a screen to meaning. And precisely at the same time, the postmodern turn in literary studies allowed room for a revision of medieval textuality; one in which *mouvance* and *variance* would be the poster children for a medieval culture in which discourse had always already been

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fluid.[2] As yet, however, the appreciation for instability of meaning and creative discursive construction would be, ironically, confined to the words on the page and the full implications of the notion of materiality in medieval studies would have to wait—text inscription and not material were the focus of interest. These intellectual developments, however, created by the mid-1990s the space in which that might indeed happen.

The second and third trends are precisely related to technological developments, and both happened in parallel, with increasing intensity as the twenty-first century approached. These were the digitization of resources and the increasing use of digital tools in medieval studies research, and particularly in textual editing. Today, of course, it is often the case that libraries and archives will provide digital copies of their holdings, or at least the most significant ones, and the medieval manuscript has, apparently, emerged blinking from the confines of the reading room to a central place on the screens of its eager public. One might imagine, then, that the material dimension of such manuscripts is now to the fore—indeed it can be difficult to recall that this was not always the case. But the provision of images is not uncomplicated, and the theoretical implications of their existence are still being worked out for a multiplicity of reasons.[3] However, the ready access to some images has at least created a consciousness of material aspects of medieval culture—though quite what impact this really will have is yet to be seen. The second digital advance has been the development of computational tools of analysis, which, to some extent at least, may help to create an appreciation of the material dimension of manuscript text. Iberomedievalism was in the vanguard in at least one sense here. The creation of machine-readable texts in the context of the Hispanic Seminary of Medieval Studies had the twin advantage of making transcriptions of medieval manuscripts searchable and susceptible to a variety of new forms of analysis, while the transcription guides developed in Madison placed a central emphasis on text as it is, not as it ought to be.[4] *Mise en page*, paleography and manuscript study became a central part of the training of most iberomedievalists rather than peripheral disciplines, and the consciousness of material aspects of the manuscript, at least in this limited textual sense, was therefore in advance of that in other languages and cultures. And, again at the same time, the theory of digital editing began to develop in what were initially rather conservative ways, albeit the possibility of including images in editions helped to foster the notion that medieval textuality was inseparable from the specificities of manuscript.[5]

An awareness of the fluidity of medieval text, the large-scale provision of digital images of medieval manuscripts and the possibility of new forms of analysis and relational editing therefore seem to have created the perfect environment for centering the manuscript as material contributor to the establishment of meaning. These perhaps can serve as context for the common research questions, which will be addressed below in the analysis of current practice in the digital iberomedieval sphere.

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[2]Obligatory references in this regard are Zumthor, *Essai*; Cerquiglini, *Éloge*; and in iberomedieval studies Dagenais, *The Ethics*.

[3]Some of these issues are addressed in Bamford and Francomano, "On Digital." See also van Lit, *Among Digitized Manuscripts*.

[4]The HSMS norms can be found at: http://www.hispanicseminary.org/t&c/ac/index-en.htm I include paleography as a contributor to materiality in that disposition on the page can help illuminate the history of the manuscript as object.

[5]See McGann, "The Rationale," for an early example of theorizing about what would become digital editions.

What materiality?

However, a singularly important question remains to be answered: what exactly is it that we mean by the material dimension? For whom and for what purpose can this materiality be exploited in the digital age? And how has iberomedieval research in all of its manifestations responded?

The themes which serve as the guide to the present special issue of *Journal of Medieval Iberian Studies* express the notion of material in two possible ways—the material manuscript as physical object, perhaps available for a range of new forms of analysis dependent on the invention of increasingly sophisticated tools; and the manuscript in terms of its functions, perhaps imagined as an agent in the world with its own life, in which it is not just a passive object. These two dimensions are not, of course, mutually exclusive, in that the very physicality of the object may well influence its evolution, or survival, just as the evidence of its agency in the world is recorded for us principally in the physical marks of all types which we seek to understand. Nonetheless, they are quite different conceptually, and the possibility of reflecting, or creating, their analysis in the digital mode is quite different. In this sense, the appeal to the foregrounding of materiality in manuscript studies is dependent not only on the development of (presumably digital) resources and tools but also on a revised conceptual understanding of what lies behind the very notion of materiality in the first instance. And one might ask if the cause of either—or both—has so far truly been served by the digital mode of being, and specifically by digital critical editing.

The sudden availability of images of medieval manuscripts has probably advanced the cause of the material dimension of medieval textuality, at least in the quantitative sense. But since material questions had always been present, as María Morrás points out, we might be entitled to ask if there has in fact been a *qualitative* leap in the study of materiality in either sense of materiality.[6] For if scholars have always been aware of the material dimension of the codex, perhaps all that has changed recently is the means to *access* a wider range of materials, albeit in a new format, and *present* more widely the results of what has always been studied. Is it truly the case that new lines of research have been opened and new paths taken? And if not, what conceptual or practical shift is required in the study of the medieval manuscript to place the material dimension on an equal footing with all others?

In what follows, I address these questions in relation to how digital editing might employ its encoding of data to represent or recreate the physical dimension of manuscripts and thereby make a greater claim to authenticity of reading than can be produced in print editions.

In respect of the first of these, the sudden availability of (occasionally) high-quality digital images of medieval manuscripts requires us all to take a position on the nature of the exercise of looking. Many, if not most, national libraries provide such images of manuscripts which are then made freely available as part of their public remit as

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[6]Morrás, "El códice," 379, "El códice estaba—está—destinado a ser manipulado física e intelectualmente, y no solo a la mera contemplación estética o a cumplir funciones ideológicas, que también." Yet as Bárbara Bordalejo pointed out in a personal communication, there is a distinction between the *desire* to have access to something physical, and the *necessity* to touch the physical object as a direct part of the research. On the question of the advantages (or not) of digital access to manuscripts, see van Lit, *Among Digitized Manuscripts*, 52, 57.

repositories of textual patrimony. This, of course, is to be celebrated—the images ostensibly take the object out of the archive and the sole preserve of those (scholars?) fortunate enough to have ready access to the physical object, although by no means all medieval manuscripts are in the hands of institutions with a public dissemination remit.[7] However, the images, to a certain extent, promote the material aspect of their study, as the comparison between any manuscript image and its monochromatic printed edition will readily confirm. But the status of such images is not uncomplicated. To begin with, questions of cataloguing, metadata, and image standards are only now being addressed in a systematic way; providing the materials for study is not especially helpful if no one can find them or understand them in truly comparative ways.[8] Rather more seriously, there is a vast disparity in the resources available to different institutions for this activity, and that is before the question of private institutions is addressed. Furthermore, it is already possible to see an Anglophone colonization of the very ways of discussing materiality and the access to digital materials. A recent, thoroughly scholarly work, entitled *Medieval Manuscripts in the Digital Age*, turns out to be single-archive focused, and that archive is English.[9] This is not new; it is not unusual to see book titles with the word "medieval" in them referring only to England. But it is not helpful either, as it gives a skewed, and unmarked, perspective on the nature of (digital) medieval studies.

One might, of course, assume that, at one point in a utopian future, all medieval materials will be available digitally in a format accessible to all. But even in these ideal circumstances, we would have to ask what is the nature of the act that we undertake in viewing them. The element of authenticity which is raised both by the question "what is the nature of the (digital) object we are viewing?" and by the question "what is the nature of my relationship to it?" was already raised, albeit in a rather different external context, by Walter Benjamin:

> Even the most perfect reproduction of a work of art is lacking in one element: its presence in time and space, its unique existence at the place where it happens to be. This unique existence of the work of art determined the history to which it was subject throughout the time of its existence. This includes the changes which it may have suffered in physical condition over the years as well as the various changes in its ownership. The traces of the first can be revealed only by chemical or physical analyses which it is impossible to perform on a reproduction; changes of ownership are subject to a tradition which must be traced from the situation of the original. The presence of the original is the prerequisite to the concept of authenticity. Chemical analyses of the patina of a bronze can help to establish this, as does the proof that a given manuscript of the Middle Ages stems from an archive of the fifteenth century. The whole sphere of authenticity is outside technical—and, of course, not only technical—reproducibility.[10]

Of course, it may be the case that technological advances will provide the answers to some of these questions, and the digital life of medieval codices may mean that we reach a new conception of what it means to speak of the manuscript in the first instance. But at present, the possibility of representing the embodied nature of materiality, both in

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[7]And, of course, the quality of the images, and their consequent utility for *research*, is not standardized across institutions.
[8]For the development of the FAIR principles of data storage and access, see Wilkinson et al., "The FAIR Guiding Principles."
[9]Albritton et al., *Medieval Manuscripts*.
[10]Benjamin, "The Work of Art," 220. See also van Lit, *Among Digitized Manuscripts*, 58, 307.

the sense of the physicality of the object and its historical trajectory, is not open to us.[11] In which case, if the "presence of the original" (however this latter term is to be understood) truly is a prerequisite for authenticity, one might ask if the study of the medieval book, in all of its materiality, is even possible without access to the physical object. Elaine Treharne, for one, seems not to be in any doubt:

> It is in studying the materiality of the book in its completeness, in embracing all elements of the participative experience, that we can begin to sense the incarnated nature of the book, even as we turn its pages and hear its noise, including that of the inhered presence of users past. Without a multisensual embodied experience of the material artifact, we experience only the transcendent, the partial; and we only ever grasp a fragmented and limiting understanding of the book's intrinsic aura and of its human ghosts who have wandered and wondered through before us.[12]

The implication here is that digital images have their advantages, but it is only in the physical experience of direct contact with the artifact that the materiality of the medieval manuscript can be grasped.[13] This is a longstanding view of many medievalists, most of whom are keenly aware of the privilege they inhabit in being allowed physical access. Most experts would agree that presence and physical touch create an additional level of understanding, and that there would be a fundamental loss occasioned by only being permitted digital access to original documents.[14]

One might, of course, take issue with the notion that access to the physical object allows for a glimpse of completeness, given that the "lived experience" (so to speak) of the manuscript-as-agent must always escape the individual moment. But in any case, the apparent democratization of access to medieval materials then turns out to be chimera, for if sensory access to the unique object is required for materiality truly to be appreciated, not only can the material dimension of the manuscript not be grasped by those whose patrimony is on display, it cannot be available to those scholars who are unable to access the artifact in person. In this counsel of despair, the previous hierarchy of privilege remains. Perhaps the guardians of precious original artifacts will heave a sigh of relief, but if authenticity requires physical access, then one might ask what the future of the study of materiality might look like. On the other hand, scholars will presumably still be able to access original materials in all their fragile glory; nothing will be lost.

Treharne notes that materiality matters and that digital access to manuscript materials inevitably brings in its wake a certain loss:

> There are also drawbacks in using the digital form of the medieval textual object, however. These concern, principally, the overwhelming significance of the corporeal in the production of medieval manuscripts and documents and the ways in which such fleshiness is

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[11]Which is not to say that it is impossible. For example, the Odeuropa project, which examines the olfactory dimension to "cultural heritage text and image datasets." For other recent research on material questions, see Wilcox, *Scraped*. Whether such questions have yet been embedded in iberomedieval editing projects is dealt with below.

[12]Treharne, "Fleshing," 477. See also van Lit, *Among Digitized Manuscripts*, 61–62, for a discussion of Treharne's and Nolan's arguments on the question of the essential nature of physical access to manuscripts.

[13]On the question of tangibility and presence, see also Bamford and Francomano, "On Digital," 34–36, and McGrady, quoted in van Lit, *Among Digitized Manuscripts*, 59.

[14]See for example Nolan, "Medieval Habit," 470: "This fact of scholarly life—that the study of manuscripts requires the presence of both book and scholar—has been altered somewhat by the digital revolution, but most scholars still feel that a visit to the archives is essential when working on a particular manuscript or set of manuscripts." See also Morrás, "El códice," 395.

represented on screen. There is always, inevitably, *loss* in the provision of the virtual; this loss is the inability to fulfill the interpretative potential of the text.[15]

As yet, there is no way to replicate digitally the voluminousness of which she speaks; the loss of the haptic seems inevitable—indeed, one might regard this as a good thing, since it guarantees the ongoing uniqueness of the original codex. If there is no way to recreate the physical dimension of a manuscript, one might ask how the study of the manuscript as physical object can be advanced. For now, at least, the authenticity of the image, or more precisely of the use of the image, casts some doubt on the possibility of digitization advancing the cause of materiality as a central aspect of manuscript study.[16]

To speak in terms only of loss, however, is to do an injustice to the possibilities of digital analysis.

Fewer questions are attached to the alternative understanding of materiality—the life of the manuscript as agent in the world. Maura Nolan, quoting Benjamin, points to a singular advantage of the digital in that "technical reproduction can put the copy of the original into situations which would be out of reach for the original itself. Above all, it enables the original to meet the beholder half way."[17] In this sense, the distinction between the manuscript as object and agent reflects Benjamin's comparison between the magician and the surgeon, since the analysis of the former necessarily depends on the physical surface while analysis of the latter requires a conceptual and contextual extrapolation from it. At present, the tools available for the analysis of the object in the first sense used here are confined to the visual—and some of them have brought great benefit to the study of, for example, codicology.[18] By contrast, the tools which are developed for the purposes of analyzing text (rather than physicality) can allow us to create a much richer understanding of the palimpsestic nature of the manuscript and the relationship of this to outside contexts.

If we consider the norms of the Hispanic Seminary of Medieval Studies, or those of the Text Encoding Initiative (TEI), we can see that the possibility already exists of recording data in respect to materiality in the sense of manuscript as layers of accreted meaning over the centuries.[19] That is, it is possible to record in transcriptions of text the relative historical status (and significance) of individual meaningful marks. If images betoken a certain loss from the original object, perhaps it is in the compilation of textual data and the development of tools to analyze them in creative ways that a greater gain in the study of materiality can be found. We now have a means of recording data about the physical, although as we shall see below, in practice such recording as does take place tends to focus on scribal features —marginalia, erasures, etc.— to the exclusion of other material elements such as color, texture, and mass. However, the creation of data is *in general* not yet sufficiently robust to make reliable conclusions about the material aspects of manuscript culture, and even if it were, there is not a large number of dependable tools to interrogate and present the data in novel ways. Of course, studies of materiality in

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[15]Treharne, "Fleshing," 466.
[16]Other humanities disciplines, perhaps more accustomed to the use of visualization, such as is the case in archaeology, may point the way towards significant advances in this respect. See, for example, the *London Charter for the Computer-Based Visualisation of Cultural Heritage* (http://www.londoncharter.org/introduction.html), and Gibbons, *Visualisation*.
[17]Nolan, "Medieval Habit," 473.
[18]For an example, see Dot Porter's work at https://digitaltoolsmss.library.utoronto.ca.
[19]Hispanic Seminary of Medieval Studies, http://www.hispanicseminary.org/t&c/ac/index-en.htm; Text Encoding Initiative, https://tei-c.org/.

iberomedieval manuscript studies continue to provide us with a better understanding of the manuscript as physical object, the recent volume by Gemma Avenoza, Laura Fernández Fernández, and Lourdes Soriano Robles being a case in point.[20] But it remains to be seen if the digital world is capable of providing a qualitative advance in the centering of the codex.[21]

Emerging from this brief survey of digital advances in the study of manuscript materiality we might ask the question: how have current digital editing projects sought to address the three areas I have highlighted? Do they address the dimension of the authenticity of the reading act they provide? Have they sought to incorporate any elements of materiality into their editing practice? Have they taken advantages in encoding to make either of these possible? And finally then, what other research is taking place which might help advance the place of materiality in iberomedieval editing?

Digital critical editing in iberomedievalism to date—editing immaterial objects?

The digital editing projects that have concerned themselves in one way or another with the medieval Iberian manuscript have tended to emerge from the field of philology rather than those of bibliography, book history, paleography or other relevant disciplines.[22] As my own personal frame of reference tends to be manuscripts written in Castilian, I will concentrate on projects in that language, to the general exclusion of Catalan, Portuguese, Arabic, Hebrew or other languages. An even more important absence from this list is, of course, Latin, which represents a large percentage of all surviving manuscripts. The predominance of vernacular languages in digital projects perhaps points to another bias in such projects. The aesthetic quality of the medieval codex makes it a highly attractive subject for imaging, and this is especially true of illuminated manuscripts. But having gained the attention of a potential readership through the use of images, it may be difficult to retain it if the text is in a language that is no longer widely spoken (although the number of visits to the Sinaiticus project, for example, might suggest otherwise). After all, with a little effort, most native speakers can read the medieval equivalent of their languages, and digital tools can help in a variety of ways. But if the language requires translation, the possibility of retaining attention may dwindle. That which is alien may be both attractive (the image) and a barrier (the language), at least where non-specialist users are concerned.

As alluded to above, access to publicly owned medieval Iberian documents is good—the Biblioteca Digital Hispánica and the PARES system provide excellent access to many of the most important early documents[23]—the Archivo General de Indias in Seville, for example, though not containing medieval documents, was an early adopter of the possibilities of imaging documents. As might be expected though, digital images in private institutions are less extensive. At the level of access to digital surrogates of the manuscript as object then, the panorama is quite promising. The possibility certainly exists to

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[20]Avenoza et al., *La producción*.

[21]There are, of course, exceptions to this. For example, the Sinaiticus project (https://codexsinaiticus.org/en/) had significant success in the presentation of the physical object.

[22]Morrás, "El códice," 380, comments that these disciplines should be central and not just "ciencias auxiliares."

[23]Biblioteca Digital Hispánica, http://bdh-rd.bne.es/; PARES, http://pares.culturaydeporte.gob.es/inicio.html.

appreciate some aspects of the materiality of the codex, and it is clear that the digitization of archival material has been important in framing the possibility of a change of mindset with regard to materiality.

What then of those projects which have already sought to take advantage of the digital mode? Have they internalized what I described above as an "awareness of the fluidity of medieval text, the large-scale provision of digital images of medieval manuscripts and the possibility of new forms of analysis and relational editing" to advance the study of the materiality of the Iberian medieval manuscript as object, or agent, or both?

In what follows, there is no attempt to be comprehensive, not least because projects are constantly in development (and, perhaps in the absence of funding for maintenance, going obsolete—data preservation is rather less complex with the printed work). It is especially noteworthy that three of the most significant—the 7 Partidas project, the Estoria de Espanna Digital, and the Cantigas de Santa María database[24]—are based around texts from the Alfonsine project, and another—on the Estoria General[25]— is promised soon. A further project is based around the medieval (Peninsular) Bible, and yet another based on the Fazienda de Ultramar.[26] These begin to create something of a canon, but digital canon formation also has its dangers—the study of the book as object and agent may well be conditioned by what is available, and the projects which have taken place so far and which necessarily respond to the priorities of funding bodies cannot hope to give an accurate representation of the totality of iberomedieval manuscript culture. Other projects present corpora in different guises; among the most significant examples are the Cancionero project, the Catálogo Hipertextual de Traducciones Anónimas, the CHARTA project, the CORDE corpus and the Colección de Textos Caballerescos Hispánicos, which is based on HSMS norms.[27]

A special category might be reserved for those projects which, rather than having a double aim of both presenting the results of research and facilitating future research, have a more didactic vocation. Here the Cantar de Mio Cid and the developing Libro de Buen Amor project represent particularly important examples, though once more questions of digital canon formation could be raised.[28] Indeed, it is precisely in these latter projects that the phenomenon of materiality is most foregrounded; something which perhaps indicates the particular value placed on materiality in those projects with less of a research focus.

One of the great advantages of digital formats, especially in the construction of digital editions, is that they allow for the linkage of text and image, something which in itself might be considered a step in the foregrounding of materiality. The rush to include images, because it is possible, was often not accompanied by any great attempt to provide an explicit account of the purpose of their inclusion. Because the main aim of

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[24]7 Partidas Digital, https://7partidas.hypotheses.org/; Estoria de Espanna Digital, https://estoria.bham.ac.uk; Cantigas de Santa María database, http://csm.mml.ox.ac.uk/.
[25]The Confluence of Religious Cultures in Medieval Historiography (Estoria General), https://religious-cultures.webflow.io/.
[26]Biblia Medieval, https://bibliamedieval.es/; La Fazienda de Ultramar, https://lafaziendadeultramar.weebly.com/.
[27]An Electronic Corpus of 15th-Century Castilian *Cancionero* Manuscripts, http://cancionerovirtual.liv.ac.uk/; the Catálogo Hipertextual de Traducciones Anónimas, http://catalogomedieval.com/; Corpus Hispánico y Americano en la Red: Textos Antiguos (CHARTA), http://www.corpuscharta.es/; Corpus Diacrónico del Español (CORDE), http://corpus.rae.es/cordenet.html; Colección de Textos Caballerescos Hispánicos, https://textred.spanport.lss.wisc.edu/chivalric/index spanish.html.
[28]Cantar de mio Cid, https://miocid.wlu.edu/main/?v=nor; Libro de Buen Amor, https://lba.georgetown.edu.

digital projects to date has been the analysis of text, both in the sense of corpus compilation and critical editing, the role of manuscript images has tended to be ancillary to the central project. The best developed of recent iberomedieval digital projects, the Biblia Medieval, is an excellent example of this, as is the Estoria de Espanna Digital. In both cases, the user has the option of vizualising the manuscript alongside the digital text.[29] In the former case this gives rise to a separate tab, in the latter the image appears in a box beside (or below) the digital text. However, there are a number of drawbacks. In the first instance, not all of the manuscripts are available, mainly because permissions cannot always be secured from archives reluctant to see their unique images unleashed in the digital world. Additionally, not all of the manuscript images are in color— which is a grave drawback in the assessment of materiality—nor is the level of resolution the same in all cases; this is a serious impediment to the possibility of the analysis of manuscripts *qua* physical objects. In both of these cases, then, the images appear to serve the purpose of addition to the centerpiece, which is the transcription of the text. As such, they allow for the user to check the accuracy of the transcriptions—something which is greatly to be welcomed in the establishment of authenticity and user-centered access—but they do not truly serve as a direct way of centering the materiality of the manuscript. Neither, of course, specifically claims this as an aim.[30] But in both cases it seems reasonable to say that the physicality of the manuscripts is not centered (beyond a physical description of manuscripts in the Estoria de Espanna Digital), nor is the advancement of the study of the material object prioritized; rather the presence of the images, linked to text, hints at the presence of a physical object without seeking to analyze its importance. Other projects incorporate images in a way similar to the two mentioned above with a greater or lesser attempt at integration of text and manuscript image (Fazienda, Cancionero), although the extent to which such presentation can contribute to extending the study of manuscript as object is variable. Still others contain no images at all, either because the aim of the exercise is the compilation of databases (CORDE) or because the focus lies elsewhere (Cantigas, Catálogo). The relationship between text and image, and the possibility of close study of medieval documents is perhaps best achieved in the CHARTA project, which links transcriptions to the extensive archival digitizations. Special mention could also go to the Celestina visual, Mio Cid and Libro de Buen Amor projects which do seek to foreground the material and/or visual nature of the manuscript and incunabula. Nonetheless, although there are possibilities emerging for the visual presentation of medieval materials which could advance the study of the manuscript *qua* object, the field relies heavily on the traditional tools of analysis in this respect.

If the study of materiality as object has scarcely been advanced in the iberomedieval digital world, what of the analysis of physical object as actor in the world? As mentioned above, the development of the TEI has meant a qualitative leap in the compilation of data about manuscript text. It must be emphasized that the TEI "develops and maintains a standard for the representation of *texts* in digital form" (my emphasis). However, as the ongoing debate on the definition of document, text and work attests, there is no

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[29]I emphasize the term visualizing here, because what the user "sees" is a digital image which serves to allow the mental visualization of the manuscript.
[30]Morrás, "El códice," 378, 386.

agreement in theory about what constitutes a text in the first instance.[31] In practice, most digital editing projects employ TEI standards in the compilation of transcriptions, and these generally include some recognition of paleographic variation, annotation and marginalia and other paratextual information. The focus is on the recording of the meaningful marks which constitute text, and as might be expected from editors who were trained in pre-digital days, the consequence of this is that the editorial principles are not greatly changed from those which informed textual editing in the past,[32] and often the object seems to be the search for meaning behind the screen of the manuscript.

Materiality in the sense of agent in the world can be encoded in the physical object in a variety of ways. One such aspect is the external information that can be gathered from, for example, bibliographical and contextual studies. That is, the evidence for the historical existence of the manuscript, how it was read, by whom and in what circumstances, is not necessarily encoded solely on the physical object itself. It is an advantage of digital spaces that they can transcend space and time in a particular way and thereby overcome Benjamin's objection to the notion of a perfect reproduction. Historical evolutions, the reuniting of (digital representations of) fragmentary evidence, relationships over time and space—possibilities now exist for the creative representation of such phenomena, something which could potentially advance greatly the understanding of the manuscript as material and historical agent. However, as almost all digital editions are the brainchild of editors of text, these possibilities have not yet been availed of, and none of the projects mentioned here seek to do so.

By contrast, and probably for the same reason, the evidence for this aspect of the materiality of manuscripts which is encoded textually has been accounted for in many of these projects. It is, in passing, why paleography and book history should be considered important parts of the study of materiality and why this should be embedded in textual editing.[33] However, marginalia, *mise en page* and *mise en texte* are often, but not always, encoded in the transcriptions which, to date, form the basis of the vast majority of iberomedieval digital editions. Of course, it is *possible* to do much of this, but it is also very labor intensive and the focus of much of the research conducted digitally has been elsewhere.

The transcription norms of the projects mentioned here reveal the preoccupations of their designers. The Hispanic Seminary of Medieval Studies, whose texts are still freely available, had as its aim the recording of data which represented as closely as possible the disposition of marks on the page:

> The norms are conservative and attempt to reproduce the original printed text as faithfully as possible, representing certain aspects of original page format and layout, as well as respecting original orthography, punctuation, and, whenever reasonable, perceived patterns of word separation. . . . All instances of transcriber emendation are clearly flagged. [34]

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[31]See, for example, the works of Bordalejo, Robinson, Eggert and Gabler. It should also be noted that the International Image Interoperability Framework (IIIF) is well on the way to establishing a widely recognized framework for providing access to high-quality images, and this may help to address some of the issues raised here.

[32]On this particular point, see Bordalejo, "Digital versus Analogue," and van Zundert, "Why the Compact Disc."

[33]Indeed, paleography has been on the forefront of advances in the field of digital philology. See, for examples, the works of Dominique Stutzmann at the Institut de Recherche et d'Histoire des Textes (https://www.irht.cnrs.fr/?q=fr/annuaire/stutzmann-dominique).

[34]http://www.hispanicseminary.org/t&c/ac/index-en.htm.

Although the central concern is the accurate representation of the words on the page, nonetheless, the encoding of material elements such as disposition on the page and palimpsestic effects is notable and allows for some interpretation of material features. Similarly, the Cancionero project ("We present transcriptions which are paleographically as faithful as possible within the bounds of Junicode and the Canterbury font"[35]) and the Estoria de Espanna Digital encode certain elements of disposition on the page, but without such elements forming a central part of the resulting edition, although the Estoria Digital edition mimics the disposition of the manuscript text. A preoccupation with paleography as the main representation of materiality can also be seen in the 7 Partidas project as one of the central norms is expressed as "Como regla general se transcribe con las grafías tal y como aparecen en el testimonio, pero sin caer en paleografismo, es decir, carecen de interés los distintos alógrafos de una misma grafía."[36] Recognition of the range of possible interests is made most explicitly in the CHARTA norms (followed also by the Biblia Medieval), which state that

> en el documento confluyen intereses diversos, entre los que se cuentan, al menos, la historia general, la historia de las mentalidades y de la vida privada, la diplomática, la paleografía, la grafemática e historia de la escritura, la fonética y fonología históricas, la morfología, la sintaxis y la lexicología.[37]

However, beyond the paleographical dimension most of the information regarding material dimensions is reserved for the header—something which is of course also allowed for in the TEI guidelines—rather than being in any way embedded in the text. A different kind of materiality is at least recognized by the Cantigas project, which seeks to account in some measure for the musical dimension of the manuscripts, although as with the other Alfonsine projects, this does not come with a qualitative leap in analytical possibilities. Other projects, of course, reject entirely any association between text and material. The CORDE database is derived from printed versions of sources. As it is a database for the purposes of the study of language change, this refusal of the material may be considered reasonable, though it does raise a question about the validity of the data.

The present state of affairs in the digital analysis of iberomedieval manuscript materiality could most positively be described as embryonic. It is the case that the raw materials compiled in the projects are generally available for download and further analysis, but the tools of possible analysis are not embedded in the projects and the utility of the data for the purposes of the examination of material question is, as mentioned above, conditioned by the range of features encoded in it. Since there is precious little in this regard in the existing data, it seems unlikely that the digital projects as currently configured will be able to contribute any qualitative benefit in this respect.

The editing future is … material?

If the conditions are ripe for the centering of material aspects of the codex, albeit more in the sense of agent in the world than object, why, one might ask, has there been

[35]http://cancionerovirtual.liv.ac.uk/norms.htm.
[36]https://7partidas.hypotheses.org/normas-de-transcripcion.
[37]http://files.redcharta1.webnode.es/200000023-de670df5d6/Criterios%20CHARTA%2011abr2013.pdf.

no epistemic shift in the nature of the research that is carried out? What shift is required to open new pathways of research? Why does it appear that digital research, and especially textual editing, seems to be carrying out the same research as before, if a little faster?

One response is that digital projects require the composition of appropriate data, and although the conditions might now exist for conceiving of the importance of the manuscript as object, the compilation of data in this regard is lacking. This is not a trivial question, nor is the solution easy. As Joris van Zundert notes, the digital mode is not less labor intensive than the forms of scholarship we are accustomed to.[38] For example, the Estoria de Espanna Digital project represented a significant investment by the UK's Arts and Humanities Research Council, but even then, by no means all of the manuscripts are included in the edition. Where more transcription does take place, as in the Online Froissart project, the granularity of the data is reduced.[39] Until there is a fast and efficient way of compiling data about material elements of the manuscript, there will not be a step change in digital analysis.

A related response would be that digital projects to date tend to have been run by textual scholars and editors, whose training and epistemological presuppositions have evolved from the methods of philology and printed textual editing. Foregrounding the material aspect of manuscripts will require a broadening of the field, both in the sense of the object of study and the training of those who practice it.

A further response might be the relationship between technology and theory. There is a temptation for humanities scholars to use the analytical tools provided, rather than to be involved in their development; no doubt in the future there will be a greater degree of coding literacy amongst those who study the medieval manuscript, but until that point, the possibility of asking searching analytical questions about materiality will depend on tools developed by people who do not necessarily understand the questions medievalist would like to ask.

These responses should not, however, be seen as a counsel of despair, for there is significant research being carried out in the field of materiality; this might profitably be incorporated into a truly digital-native form of critical editing which addresses the theoretical questions raised here. On the question of data composition, for example, research carried out in automatic recognition of scripts in the context of the Transkribus project shows how "AI-powered recognition, transcription and searching of historical documents," might have a role to play in the re-invention of critical editing in the first instance.[40] Indeed, the possibilities of this approach have recently been availed of in iberomedievalism for the first time.[41] Here, one could also think of AI at the service of questions of materiality, which might subsequently be built into a new *kind* of edition. Pattern recognition research being carried out in a range of research centers gives a hint of the kinds of knowledge which might profitably be incorporated into truly digital editing.[42] Similarly, the recent advances in manuscript studies in, for example, the Center for

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[38]van Zundert, "Why the Compact Disc."
[39]Online Froissart, https://www.dhi.ac.uk/onlinefroissart/.
[40]https://readcoop.eu/transkribus/?sc=Transkribus.
[41]https://twitter.com/JMFradeRue/status/1356904446710661120.
[42]In Spain alone, for example, the work of the Pattern Recognition and Human Language Technology Research Centre https://www.prhlt.upv.es/wp/es/ or the Pattern Recognition and Document Analysis Group http://dag.cvc.uab.es might contribute creatively to the production of new kinds of materiality-focused critical editing.

the Study of Manuscript Cultures,[43] point to the generation of types of knowledge which can be taken into account in a digital critical editing which is no longer confined by the demands of print. All of this points to the possibilities of a different *class* of textual editing, a multidimensional approach which models knowledge, of all types, rather than text. The emerging graph technologies embedded in the work of, for example, the Hildegraph project, perhaps show a way forward.[44]

Finally though, and in the absence of the integration into textual editing of some of the digital methodologies just referred to, it is probably accurate to say that none of the questions raised by this special issue have been addressed adequately in iberomedieval digital editing scholarship yet. This is not only for the lack of integration just mentioned, nor because the subject matter is beyond our understanding, but also because the means of addressing them in the digital mode of being are not yet adequately theorized. The Estoria de Espanna Digital edition begins with the question "What is the Estoria de Espanna?" If we were to assume that the material aspects of all of the manuscripts were a significant part of the meaning of the Estoria, then the current state of affairs would imply that we are nowhere near to arriving at an analytical framework which provides us with a richer appreciation of the interplay of textual, contextual and physical aspects of the medieval codex. In digital terms, this would mean the creation of a context in which data about all of these elements could be linked and analyzed creatively. But without a significant reappraisal of the object of study in the first instance, and one which addresses the questions of authenticity alluded to above, the possibility of a radical digital advance in the status of the manuscript as both object and actor is not likely.

Notes on contributor

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Disclosure statement

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Works Cited

Secondary Sources
Albritton, Benjamin, Georgia Henley, and Elaine Treharne. *Medieval Manuscripts in the Digital Age*. London: Routledge, 2020.
Avenoza, Gemma, Laura Fernández Fernández, and Lourdes Soriano Robles. *La producción del libro en la Edad Media. Una visión interdisciplinar*. Madrid: Sílex, 2019.

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[43]https://www.manuscript-cultures.uni-hamburg.de/index_e.html.
[44]https://www.adwmainz.de/projekte/das-buch-der-briefe-der-hildegard-von-bingen-genese-struktur-komposition/digitale-editionsumgebung.html.

Bamford, Heather, and Emily Francomano. "On 'Digital-Medieval Manuscript Culture': A Tentative Manifesto." *Digital Philology: A Journal of Medieval Cultures* 7, no. 1 (2018): 29–45.

Benjamin, Walter. "The Work of Art in the Age of Mechanical Reproduction." In *Illuminations*, edited by Hannah Arendt and translated by Harry Zohn, 217–51. New York: Schocken Books, 1969.

Bordalejo, Barbara. "Digital versus Analogue Textual Scholarship or the Revolution Is Just in the Title." *Digital Philology: A Journal of Medieval Cultures* 7, no. 1 (2018): 7–28.

Cerquiglini, Bernard. *Éloge de la variante*. Paris: Cerf, 1989.

Dagenais, John. *The Ethics of Reading in Manuscript Culture: Glossing the "Libro de buen amor."* Princeton, NJ: Princeton University Press, 1994.

Eggert, Paul. *Securing the Past: Conservation in Art, Architecture and Literature*. Cambridge: Cambridge University Press, 2009.

Eggert, Paul. *The Work and the Reader in Literary Studies: Scholarly Editing and Book History*. Cambridge: Cambridge University Press, 2019.

Gabler, Hans Walter. "Beyond Author-Centricity in Scholarly Editing." *Journal of Early Modern Studies* 1, no. 1 (2012): 15–35.

Gabler, Hans Walter. "Theorizing the Digital Scholarly Edition." *Literature Compass* 7, no. 2 (2010): 43–56.

Gibbons, Gary. *Visualisation in Archaeology Project: Final Report*. 2012. https://archaeologydataservice.ac.uk/archiveDS/archiveDownload?t=arch-1493-1/dissemination/pdf/via_final_report/via_final_report.pdf.

McGann, Jerome J. "The Rationale of Hypertext." In *Electronic Text: Investigations in Method and Theory*, edited by Kathryn Sutherland, 19–46. Oxford: Clarendon Press, 1994.

Morrás, María. "El códice en la era digital." In *La producción del libro en la Edad Media: Una visión interdisciplinar*, edited by Gemma Avenoza, Laura Fernández Fernández, and Lourdes Soriano Robles, 365–425. Madrid: Sílex, 2019.

Nolan, Maura. "Medieval Habit, Modern Sensation: Reading Manuscripts in the Digital Age." *The Chaucer Review* 47, no. 4 (2013): 465–76.

Robinson, Peter. "The Concept of the Work in the Digital Age." *Ecdotica* 10 (2013): 13–41.

Robinson, Peter. "The Digital Revolution in Scholarly Editing." In *Ars Edendi Lecture Series. Vol. 4*, edited by Barbara Crostini, Gunilla Iversen, and Brian M. Jensen, 181–207. Stockholm: Stockholm University Press, 2016.

Stokes, Peter A. "Teaching Manuscripts in the Digital Age." In *Kodikologie und Paläographie im digitalen Zeitalter 2* [*Codicology and Paleography in the Digital Age 2*], edited by F. Fischer, C. Fritze, and G. Vogeler, with B. Assmann, M. Rehbein, and P. Sahle, 229–45. Norderstedt: BoD, 2010.

Treharne, Elaine. "Fleshing Out the Text: The Transcendent Manuscript in the Digital Age." *postmedieval: a journal of medieval cultural studies* 4 (2013): 465–78.

van Lit, L.W.C. *Among Digitized Manuscripts: Philology, Codicology, Paleography in a Digital World*. Leiden: Brill, 2020.

van Zundert, Joris. "Why the Compact Disc Was Not a Revolution and 'Cityfish' Will Change Textual Scholarship, or What Is a Computational Edition." *Ecdotica* 15 (2019): 129–56.

Wilcox, J. *Scraped, Stroked, and Bound: Materially Engaged Readings of Medieval Manuscripts*. Turnhout: Brepols, 2013.

Zumthor, Paul. *Essai de poétique médiévale*. Paris: Seuil, 1972.