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**Digital Explanatory Annotations for Literary Texts:
Possibilities – Practices – Problems – Prospects**



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1. Introduction

Explanatory annotations are meant to help readers understand, interpret and enjoy a literary text.¹ This, at least, is the ideal. In reality, such explanatory notes frequently leave readers dissatisfied. An example of such a case can be found in the Norton edition of *The Canterbury Tales* (ed. Kolve): For a passage that lists all places at which the Knight has fought, the notes only provide readers with ‘translations’ of these names into their modern counterparts, e.g. that “Alisaundre” means “Alexandria” (cf. Kolve 4). This Norton edition is aimed at a very limited readership, namely to “students making their first acquaintance with Chaucer in his own language” (Kolve xi). The note for ‘Alisaundre’ tells us two things about how the annotator (or the publisher) conceives of this target audience. First, these students are not able to infer which city the Middle English name refers to. Second, it is not worthwhile to provide them with contextual background knowledge, e.g. that there had been a crusade against Alexandria a few decades before the *Canterbury Tales* were written. The annotator (or publisher) either perceives this fact to be irrelevant to the student readers or believes that, even though it might be relevant to them, they still prefer having a slim book over receiving further background knowledge. All readers who are able to infer the modern name from the text or who would like to know more about the historical context of the passage are not served by this note. In other words, the explanatory note in the Norton edition is not able to address the needs or interests of different kinds of readers. Most likely, this is not only due to the very limited target audience but also due to space restrictions imposed by the publisher, which means that the annotation can never contain more than the most basic information. The Riverside edition of *The Canterbury Tales* (ed. Benson) has more space available and can provide more extensive elucidation. Unlike most print editions, it has even partly found a solution for addressing readers with different needs and interests by offering very brief information in the footnotes and extensive notes in the endnotes. However, dividing annotations in foot- and endnotes makes the volume rather tedious to use for those readers who want to receive further background knowledge on a topic. Every time they have a question that is not addressed in the footnotes, they have to leaf through the whole volume in order to find an answer (e.g. from the mention of “Alisaundre” on page 24 to its annotation on page 801). One critic has even argued that readers might at one point become so frustrated with having to

¹ Annotations can, of course, also elucidate other kinds of texts (legal ones, for example), but the present paper is only concerned with explanatory notes for literature (cf. Raible 55).

search for endnotes that they will stop consulting them (cf. Roloff, “Fragen” 133). In the case of either edition, it is not the annotator or publisher who should be blamed for space restrictions, the fact that it is difficult to address the needs of different readers in the same edition, or for the poor usability of endnotes. Rather, these issues are due to the medium in which annotations had to be published until quite recently: print.

Given the many problems entailed by print annotations (those just mentioned are only the proverbial ‘tip of the iceberg’), the logical step would be to publish them in the digital medium. In an article on digital scholarly editions, Hans Walter Gabler even goes so far as to assert that “[t]he greatest opportunity [...] for an innovation of scholarly editing [...] may ultimately lie in the field of the commentary” (53). However, despite the obvious shortcomings of printed explanatory notes and the possibilities that could be opened up by digital annotations, little research has so far been done on them. Given their long history, even annotations *in general* are a notoriously understudied field, but the available literature on digital annotations is scantier still (cf. Bauer and Zirker, “Explanatory Annotation” 213; Gabler 46). For instance, they are only rarely mentioned in the ever-growing wealth of research on digital editing (e.g. Sahle’s *Digitale Editionsformen*, the relevant chapters² in Schreibman, Siemens and Unsworth’s *Companion to Digital Humanities* and *New Companion to Digital Humanities* or Driscoll and Pierazzo’s *Digital Scholarly Editing*). True, there are several papers on how annotations might be rendered more user-friendly by being published electronically (for an overview see [Chapter 2](#)) and a few outlines for digital annotating projects (e.g. Visconti’s ‘*How Can You*’ and Groden). Yet, there is almost no research in the following five fields: **(1) The added value:** In which aspects exactly do digital explanatory notes constitute an improvement over printed ones? **(2) Actual practices:** To what extent have these possibilities already been realised in digital editions? **(3) An appropriate system:** How can a theory of annotating best take into account readers’ individual needs and interests, and how can this system be put into practice? (cf. Bauer and Zirker, “Whipping Boys” par. 10). **(4) The readers’ perspective:** What are their attitudes towards digital annotations? Do they prefer them over printed ones? And which features still have to be implemented in order to meet their needs best? **(5) Unanswered questions:** Which new problems might arise from the change of medium, and which practical or theoretical issues concerning digital annotations remain

² For example Willett; Warwick, “Print Scholarship”; Rommel, or Price.

yet unsolved? This study hence represents an initial step towards a conceptualisation of digital annotating, both in theory and practice.

Since this project is mainly situated within the field of the Digital Humanities, it should be clarified that the notion of annotating that is employed here differs from the two other notions the term usually carries in this research area. For one, ‘annotating’ is sometimes used as a synonym for ‘encoding’, ‘tagging’, or ‘*Auszeichnung*’, i.e. for processes in which “linguistic data are [...] enriched with information about their linguistic properties” (Huitfeldt 161). Furthermore, ‘annotating’ can denote an action “which, in the paper world, is represented by writing in the margins of a book”, meaning a reader taking notes for private use (Bradley and Vetch 225; cf. also Bélanger n.pag.). Both senses of ‘annotating’ are discussed by Jannidis, Kohle and Rehbein (cf. chap. 18). The **definition** employed in this paper, however, is as follows: Annotations are texts³ of varying length that directly refer to a word, phrase, passage, or even the whole of another text. They provide different kinds of information that are meant to help readers understand and interpret the primary text better. Hence, they “increase the existing content by providing an additional layer of elucidation and explanation. [...] [T]he explanation itself takes the shape of an additional content that can help people understand the annotated content” (Agosti and Ferro 3:8). Consequently, such annotations are not descriptive (like linguistic annotations) but explanatory. Furthermore, they are not meant for their author’s personal use but are made available to others. This is also the notion of ‘annotation’ employed, for example, by Jansohn, Small, Goulden, Wall, and Bauer and Zirker. In what follows, the term will be used synonymously with ‘explanatory annotation’ and ‘explanatory note’.

The main part of this paper is divided into **five sections**. In the [second chapter](#), the functional shortcomings of printed annotations are discussed in greater detail. For each of them, suggestions are made for how these problems might be solved by publishing annotations digitally. The new challenges that might arise from this change of medium are also addressed. The focus includes both the creation and the use of annotations, i.e. both the annotator’s and the reader’s perspective.

The [third chapter](#) is concerned with a review of eleven of the most advanced digital projects that provide annotations and/or enable users to add their own explanatory notes. I will explore whether the possibilities outlined in chapter two have

³ ‘Texts’ is here understood in the larger sense: Images, audio files or videos that are attached to a text in order to elucidate it can also count as annotations.

already been realised and whether there are already emerging patterns in the practice of publishing annotations online. Are there, for example, standardised ways of marking the presence of annotations or of displaying them? Therefore, the focus does not lie on each edition separately but rather on different features, e.g. the incorporation of multimedia elements or the opportunity for users to add and revise annotations.

The analysis of the eleven annotated online editions in chapter three will show that the theories and concepts of (digital) annotating that underlie them are not fully developed. For example, many of these projects use tags or categories in order to systematise annotations, but the meaning of these categories remains unclear as they are insufficiently defined or applied inconsistently. This curtails user-friendliness because readers are not able to filter information that is irrelevant to them or their particular (research) interest. [Chapter four](#) presents a possible remedy for this problem: the Tübingen Explanatory Annotations System (TEASys), which is being developed in the research project I am affiliated with. This system relies on a comprehensive theory of annotating and strives to render electronic notes more transparent by subdividing them into smaller parts that are marked in accordance with both the depth and the field of knowledge they provide. Thereby, readers are enabled to access only those sections of an explanatory note that address their needs and interests.

[Chapter five](#) reports the results of a pilot study that investigated 14 students' attitudes towards a number of aspects that might influence their acceptance and future use of digital annotations. This study examined their personal assessment of (1) digital reading in general, (2) annotations in general, (3) digital annotations (published on the TEASys website) in comparison to printed ones, (4) the prototype of our [project website](#), and (5) the features they desire in a digital annotated edition. Participants highly appreciated annotations and favoured digital annotations over printed ones, even though they preferred reading in print over reading on screen. They were divided over the usefulness of some of the features (e.g. multimedia elements) that could be implemented in a digital annotated edition, which opens up questions for further research.

When reflecting on the possible future(s) of digital annotating, [chapter six](#) first addresses the problem that digital explanatory notes are almost always inextricably linked with a digital edition. This is especially relevant as participants in the survey disliked reading digital primary texts but liked digital annotations. The chapter suggests a solution that would render the fate of digital annotations to some extent independent

from the fate of digital reading. The chapter is also concerned with two other issues that have not yet been solved satisfactorily and that are at the heart of many current debates in the Digital Humanities. The first revolves around the questions of collaboration and authority: How can we reconcile the desire to invite users to add and revise annotations *and* our aim to provide readers with academically reliable information, i.e. “how can we establish quality control without discouraging user involvement” (Price, “Social Scholarly Editing” 177)? The second issue is one of persistence and citeability, meaning the problem that many scholars are wary to quote digital editions (and annotations) because they are concerned about the stability and future accessibility of their content (cf. Sahle 2: 115-16; Rosselli Del Turco 228-29). Only when these problems are solved can readers be expected to accept digital annotations as valuable tools that can be unhesitatingly cited in academic publications.

2. Print Problems and Digital Solutions

Mission statements for explanatory notes in printed editions just as often describe what the annotators could achieve as what they could *not* achieve.⁴ In the majority of cases, these restrictions are due to the medium in which the annotations are published. In what follows, six common complaints voiced by annotators and readers are outlined, suggestions are made how these problems could be solved or at least mitigated by publishing explanatory notes in digital form, and new issues that arise from this change of medium are addressed. All advantages of the digital medium that are outlined here are also true for editing in general, but the focus of this chapter lies solely on their added value for annotating.

The electronic medium does, of course, not solve all problems associated with annotating. The *content* of digital annotations still mainly depends on their author’s approach and resources, even though the medium determines its extent, mode of display, and additional features (e.g. hyperlinks). Despite the fact that the content of explanatory notes also requires more research, its study is beyond the scope of this chapter.⁵

⁴ For example, the editor of the Oxford Classics edition of Pope’s major works informs readers that “annotation in this edition has had to be strictly limited”, meaning that Pope’s “own notes are in general not annotated” and that “[o]nly sustained and significant literary allusions are glossed” (Rogers 693).

⁵ For common contentual issues that render annotations less helpful to the reader see, for example, Bauer and Zirker, “Explanatory Annotation”; Mathijsen, “Die ‘sieben Todsünden’”; and Goulden.

2.1 Spatial Dimensions

Problems in Print

One of the most frequently voiced dissatisfactions with printed annotations is that they simply cannot contain enough information to answer all questions of a reader. It is often deplored that the space restrictions imposed by publishers are so strict that annotators have to provide information they know to be insufficient for elucidating the primary text in its full scope (cf. Hagen, “Von den Erläuterungen” 211-12; cf. Arnold, “Versuch” 19; Sahle 1: 274-75). These space restrictions have both a practical and an economic background. For example, an edition like the *Norton Shakespeare* (ed. Greenblatt), which has more than three thousand pages and is already difficult to wield in its present form, would become impossible to handle if it was more extensively annotated. On the economic side, it is financially demanding to publish a comprehensive critical edition (or even series) in print, especially if the publisher has to expect that only a very limited number of scholars will be interested in it (cf. Ender 44).

Thus, in order to adhere to the publisher’s guidelines, annotators have to resort to space-saving practices that are far from reader-friendly. For instance, some suggest not to annotate items that can also be found in general dictionaries or lexica (cf. Koch 134). However, having to search for an unknown item in an encyclopaedia (or, more likely, on the internet) disrupts the reading process much more than resorting to an annotation, which provides exactly that information about the item that is relevant for understanding or enjoying the passage in question. Furthermore, not providing readers with an explanatory note does not mean that they conduct research themselves. In most cases, it means that they simply read on – with a diminished or even wrong understanding of the text. Annotations should do their utmost to spare readers the effort of having to go beyond them in order to answer their questions.

Another way in which annotators try to save space is to clutter the explanatory notes with abbreviations and references to other annotations (cf. Mathijsen, “Die ‘sieben Todsünden’” 258-59). Chances are low that readers will try to find out what the abbreviation means or to follow the link to another note. If annotations are tedious to use, one scholar argues, readers will at some point stop consulting them for good (cf. Roloff, “Fragen” 133). In order to save space, some annotators even refrain from providing sources in their notes, which is not only not reader-friendly but also unacademic. It is absurd that something that is unacceptable in all other forms of

academic writing should be acceptable in annotations. Apart from not being verifiable, such notes also hinder scholars who would like to use them as a starting point for further research (cf. Mathijssen, “Commentary” 192). Hence, the space restrictions of print lead to many annotations being inexistent, incomplete, tedious to use, or unacademic.

Digital Solutions

The advantages of the unlimited digital space have been noted by several scholars (e.g. Buzzoni 59; Sutherland and Pierazzo 198). In the digital medium, space restrictions are no longer an excuse for providing readers with insufficient annotations (cf. Kamzelak 503). Finally, explanatory notes can – and should – be as numerous and extensive as to leave no reader’s question about the primary text open. This ideal is, of course, only achievable in theory. There will always be a word that no one thought of annotating, and no explanatory note can contain every piece of information that some readers might perceive as relevant for understanding a given passage. However, the absence of space restrictions as well as the possibility to collaboratively amass knowledge bit by bit (see 2.5 and 2.6 below) enables annotations to at least come close to this ideal. Without space restrictions, all sources used by an annotator can now be cited or linked to.⁶ Furthermore, digital annotations for intertextual references can quote the source text at length – something that has long been recommended in guidelines for annotating (cf. Hagen, “Textkonstitution” 173; Mundt, Roloff, and Seelbach 163; Oellers 118; Roloff, “Fragen” 133). In an even greater extension, the digital edition can become an archive for additional material related to the primary text, which the annotations can then refer to (cf. Hoffmann, Jörgensen, and Foelsche 216; Sahle 2: 177; Shillingsburg, “Principles” 24). What follows from all this is that digital annotations can be longer, possibly much longer, than printed ones. This does not only have advantages for the reader as “[t]he vices of over-annotation are as bad as the vices of under-annotation” (Edwards 100).

New Challenges

It is a paradoxical situation: theoretically, texts on the internet can be much longer than printed ones, yet research has shown that people on the web read much less and much less thoroughly than in print (cf. Nielsen, “How Little”). Hence, the length of digital

⁶ In order to further enhance user-friendliness one might also implement a function similar to the one used by the MLA database, which allows scholars to quickly find out whether they have access to the cited work through their institution.

annotations cannot be determined by the possibilities of the medium but “by the reader’s ability to process” (Bauer and Zirker, “Whipping Boys” par. 11). It is easy to overwhelm them with lengthy annotations and supplementary material (cf. par. 12; 58; Graver 176; Morgenthaler 255), which is exactly what annotations should not do. The reason why explanatory notes have not grown superfluous with the advent of the internet is because they “make the excess of information manageable and therefore useful and usable” (Bauer and Zirker, “Whipping Boys” par. 58). Editors cannot simply tell readers: ‘We have only annotated hidden allusions and items that do not seem to require annotation at first glance – for everything else there is Google’. A browser is no substitute for an annotation that offers academically reliable information and chooses from the enormous wealth of secondary literature only those parts that are relevant for understanding a certain word, passage, or text. It is exactly this *relevance* of the provided information – already important in print annotating – that has to be the guiding principle for annotators on the web. For every single piece of knowledge they offer, for every additional material they include, they have to be able to justify how it serves to elucidate the annotated text. An explanatory note is not a general lexicon entry. Rather, it refers to a specific word or passage of the primary text and exactly tailors its information to the questions that arise from these. For example, when explaining the meaning of a word, an annotator would not simply list all definitions of this word that can be found in the *OED* but only name those that are relevant in the given context. Despite the strict text-centeredness of annotations, the amount of relevant material they can provide is frequently still too much for a reader to process. A solution has to be developed that enables users to find exactly those pieces of information that address their needs and interests (for more on this issue see the chapters 2.4 and 4.1 below).

2.2 Multimedia

Problems in Print

Even as early as 1924, guidelines for annotating recommended (when relevant) the integration of images (cf. Witkowski 137). However, price and practicality prevent the use of multimedia elements in printed explanatory notes: the inclusion of pictures is expensive, the inclusion of audio or video files impossible. However, there are some items that virtually call for the use of multimedia annotations because they can only be insufficiently described in words, e.g. when a text refers to a sound or an uncommon object. And even *if* an annotator succeeds in elucidating such an item in text only, the

effort and time required by readers to comprehend this plain text is most likely greater than if the note also included an illustrative multimedia element. In such cases, the restrictions of the printed medium impede readers' understanding of the annotation and, in consequence, of the primary text.

Digital Solutions

There are various ways in which multimedia features can be profitably included in an annotation. As mentioned above, some objects can be much better explained by adding an image of them to the text of the note (an example from the Tübingen *Annotating Literature* project I am affiliated with is the 'teetotum'). Sound files can be used to reconstruct songs or earlier pronunciations; videos can illustrate various possible stagings of a scene⁷. Audio-visual annotations would also enable readers to better savour the oral and performative aspects of literature. For example, in his review of the *Waste Land* app for iPad, Adam Hammond commends that the various sound files work "especially well [...] since it is a poem that [...] only really makes sense once you begin to consider it in the light of oral performance" (n.pag.).⁸

New Challenges

Like the unlimited digital space, the possibility to include multimedia features in annotations increases annotators' risk of providing irrelevant information. Images, audio files, and videos should not be used for the sake of using them, and annotators have to carefully reflect whether a certain multimedia element can really enhance readers' ability to understand, interpret and enjoy the primary text. For example, it does not make sense to annotate the word "sun" by attaching an image of the sun to it because no reader will wonder what the sun looks like.⁹

Furthermore, the effectiveness of multimedia annotations on readers' understanding of a text has not yet been proven. Studies on multimedia glosses for L2 learners even indicate that such explanatory notes might "affect reading comprehension negatively" (Sakar and Erçetin 28; cf. also Plass et al. 225). Consequently, a balance has to be struck between withholding helpful illustrative material and distracting or

⁷ Such videos are, for example, provided in the annotations on *Richard Brome Online*. For more information about this project see chapter 3.

⁸ For a very comprehensive overview over all the extra material one could add to a digital edition see Régnier (cf. 71-72).

⁹ This is the case in a *Genius annotation* for "the eye of heaven" in Shakespeare's Sonnet 18.

overwhelming users. Plass et al. recommend not to display available multimedia elements by default but to let readers decide which extra material they want to see (cf. 239). Users could, for example, choose to hide all such elements, or to be provided with all available pictures but to access audio files and videos only at their desire.

Annotators also have to reflect on the extent to which multimedia annotations might affect the reading experience. For instance, it makes a difference whether one reads Joris-Karl Huysmans' description of Gustave Moreau's *Salomé* while *or* without being able to look at a picture of the painting itself. Annotations might make available information that most of a work's first readers may not have had and that the author did not expect (or want) them to have either. A possible solution would be to hide the image at first and tell readers to only look at it after having read and savoured the passage in question.

The issue of copyright should not be neglected either when contemplating the inclusion of multimedia elements and supplementary material. In their enthusiasm over what is *theoretically* possible in a digital edition, scholars often seem to forget what is *legally* possible. Of course, editors would render scholarship a great service if they made available all film and theatre adaptations of a text, all “[p]ublished monographic researches”, all “translations in all languages”, but the joy of copyright holders would be quite limited (Régner 72). Hence, the use of multimedia elements has to be restricted by considerations of what is helpful and relevant for readers as well as what is legal.

2.3 Hyperlinking

Problems in Print

An aspect of annotations that is often criticised is that they fragment the primary text because they can only address isolated difficulties for understanding (cf. Bürger 348-49; Friedman 124; Hagen, “Von den Erläuterungen” 221-22; Martens 40). Ulfert Ricklefs even calls them “hermeneutisch völlig unzureichend” (56).¹⁰ According to this view, the main obstacles for understanding a text are not situated on the level of single words or references but on the level of larger passages, underlying concepts, or even of the text as a whole. Most annotations are hence attached to the ‘wrong’ – or at least the less crucial – point of the hermeneutic circle, the part instead of the whole. As a consequence, it is often recommended to connect annotations for single, isolated items to annotations for

¹⁰ ‘completely insufficient in terms of hermeneutics’ (my translation).

larger themes, structures, or passages. In German guidelines for annotating, this is usually called the combination of *Einzelstellenkommentar* (commentary for single passages) and *Überblickskommentar* (overview commentary) (cf. Martens 44; Schmidt 81-82). It is obvious that the realisation of this suggestion in print leads to a great amount of cross-references like ‘See pp. 25-29 for further examples and an analysis of this motif’ that most readers will not be inclined to follow. Optimistically speaking, they will read the overview annotations linearly *before or after* reading the whole primary text and the annotations that are attached to its specific items. Or, pessimistically speaking, they will not read the overview annotations at all because they are hidden somewhere between introduction and primary text or appendix and index. The actual idea behind this suggestion – to first provide readers with an elucidation of a very specific issue and, immediately afterwards, with an explanation that embeds this issue in a larger context – is thwarted by the limitations of the print medium.

Digital Solutions

In the digital space, such cross-references are much more user-friendly, and it is to be expected that more readers follow a reference when they just have to click on a link rather than search through dozens of pages. The use of hyperlinks also enables annotators to create whole webs of annotations: Explanatory notes for specific items can be connected both to each other and to notes that elucidate general issues pervading the text. Readers can thus arrive at a better understanding of text passages in their uniqueness *and* in their relationship to the rest of the work. Vice versa, the exact components of motifs and themes are brought to light; i.e. it is shown how parts of the text contribute to (and sometimes contradict) the meaning of the whole and vice versa.

Fig. 1 below, for example, shows a map of selected annotations for Charles Dickens’ *The Chimes* that were prepared in the context of the Tübingen *Annotating Literature* project. For the sake of clarity, not all links between the annotations are visualised. All explanatory notes marked in yellow are concerned with specific uses of non-standard English in this story; those marked in blue provide more general information on this topic in the context of the primary text. The annotation “Will Fern’s dialect and grammar”, for instance, synthesises all specific notes on his utterances and explains what they – taken as a whole – tell us about this character’s place of origin and social status. The notes marked in red show a selection of annotations (both general and specific) that can be related to Will Fern’s dialect and origin but that are not concerned

with non-standard English. The annotations in the upper right corner refer to a non-standard utterance by a different character.

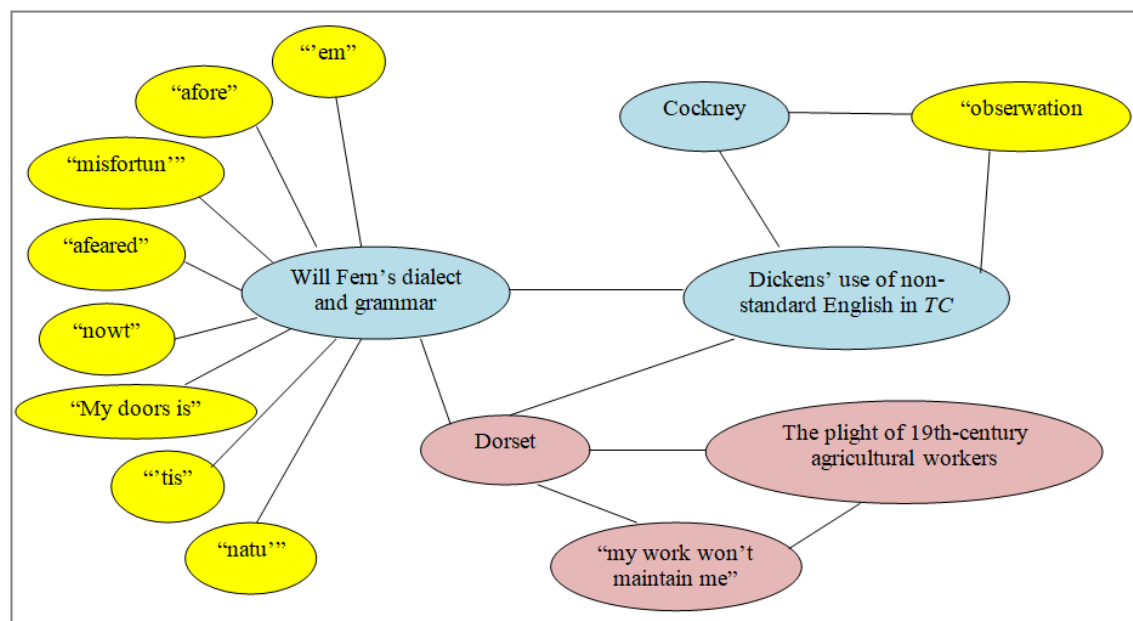


Fig. 1. Map of a number of annotations for Dickens' *The Chimes*

Going a step further, it is also conceivable to connect annotations written for different works by the same author, thus showing a specific item not only in relation to the whole text in which it appears but also in the context of the writer's entire oeuvre. To return to Fig. 1, this could mean that the annotation for Dickens' use of non-standard English in *The Chimes* would be linked to an annotation for the same topic in the *Pickwick Papers*.

It is nearly impossible to create a clear and user-friendly visualisation of the connections between *all* annotations for a novel or even an author's life work. However, one might allow readers to click on an annotation and see at least a section of such a map, one that shows all direct links between this annotation and others, and that enables readers to zoom out in order to also see the 'surrounding area' of the note.

Hyperlinks also provide benefits in terms of economy. For one, the ability to link knowledge allows for the provision of very concise explanatory notes because information does not have to be repeated every time it could be relevant. Instead, the annotation would simply contain a link to a note in which this information is already provided. Furthermore, annotators may choose not to annotate items that are well-explained elsewhere but simply link to these resources, provided that they are reliable and accessible by all users (cf. Ender 45). This would also ensure that annotations do not become too broad. In the case of the example in Fig. 1, an annotator would not provide an extensive note on dialect in Dickens' writings in general but include a link to

an academic open-access resource that offers such information. Furthermore, when annotating intertextuality, a link to the full text (ideally in a critical, annotated edition) should also be provided and, if possible, refer users directly to the passage quoted or alluded to in the primary text. Thus, the annotation itself only has to quote a small part of the source text and would nevertheless allow readers to compare the two texts in greater detail (cf. Hoffmann, Jörgensen, and Foelsche 215).

New Challenges

Linking to external websites also has a downside, namely that one has to test regularly whether there are any broken links that would refer readers to a “404 - Page not found” page instead of the information they require. Neglecting this duty would quickly impair the usability and trustworthiness of the annotations. An additional issue is that the information provided by other resources is not specifically tailored to the item it is meant to elucidate. Depending on the item and the context in which it appears, this information might be irrelevant or even misleading. As can be seen in Fig. 2, this is a problem of the Kindle app, which allows users to access different dictionaries. Instead of displaying a context-sensitive definition (“rebel” as a verb), it first displays the most common definition of the word (“rebel” as a noun). Hence, links to external resources should never be created automatically but only after careful reflection on whether the information provided there is sufficient, relevant, and appropriate for the item it is meant to explain.

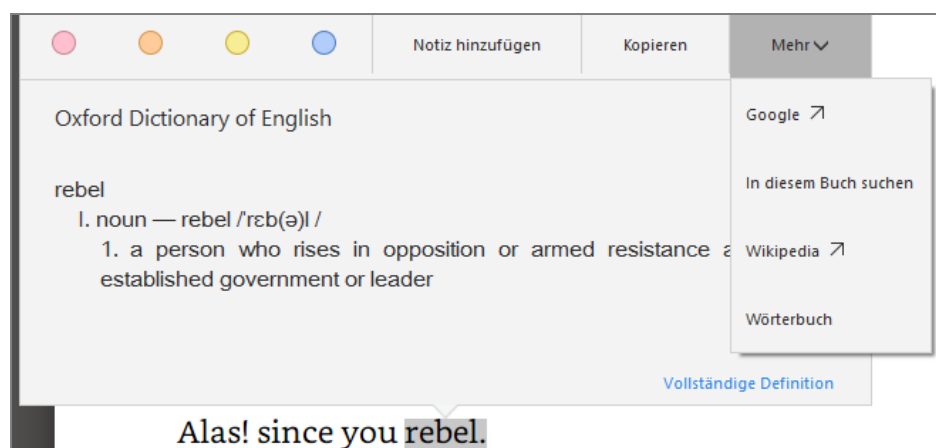


Fig. 2: Screenshot showing a dictionary entry provided in the Kindle app

A question that is raised by the possibility to link specific annotations to more general ones is where the latter should be ‘anchored’. In print, explanatory notes that refer to a longer passage are often attached to the beginning or end of this passage. But what if an

annotation is concerned with a motif that runs through the whole work or with two items that appear many pages apart? In such a case, it might be sensible to attach the general annotation not to the primary text but to specific annotations. In the case of Fig. 1, for example, the annotation “Will Fern’s dialect and grammar” would not be anchored in the primary text but in each of the specific notes that point to this general one. Additionally, a list of all annotations that are only attached to other notes rather than the main text should be provided in order to make them locatable and accessible without having to open the specific annotation first.

A quite different problem is that hyperlinks in annotations encourage and facilitate the kind of non-linear reading that is associated with scholarly research (cf. Veit 45-46) but are less helpful for readers who want brief notes that only minimally disrupt their reading experience. Hence, two main classes of readers of annotations can be differentiated: (1) Those reading for research purposes and more interested in the information provided by the explanatory note than in the primary text itself. (2) Those reading for pleasure and more interested in the primary text than in the annotations. The former group of readers appreciates being referred to further relevant information, whereas the latter requires a concise note that does not distract them by tempting them to follow links. Furthermore, the latter class wants to understand the information provided by the annotation as quickly as possible in order to return to the primary text. Hyperlinks, however, have been shown to impair comprehension as they increase readers’ cognitive load by forcing them to decide whether to click on them or not (cf. Tanner 5). As a consequence, users should be able to turn off the links (or at least make them invisible) whenever they want to concentrate on the primary text or on the content of a single annotation.

2.4 Addressing the Needs of Different Users

Problems in Print

The opportunity to make links invisible is closely related to the field of customisation, which, in print, is possible only to a very limited extent. Readers can use bookmarks, highlight annotations, or simply choose not to read them, but they cannot click one button and automatically see only those annotations they want to see.

Annotators have to acknowledge that some readers want to immerse themselves in the primary text and thus reject annotated reading, which means “being mentally

pulled out of the main text repeatedly” (Visconti, *How Can You*’ 31). In print, their reading experience is constantly disrupted by superscript numbers and asterisks that indicate the presence of an annotation. These signs suggest that the primary text alone is not enough, that there is something the reader is missing. As a remedy, Rodger Beehler suggests to provide annotations in the form of endnotes and to omit any sign of their presence in the primary text (cf. n.pag.). This may benefit readers who do not want to read explanatory notes, but it causes annoyance to those who want. Whenever they come across something they do not understand, they have to go to the end of the book, not knowing whether they will find anything that answers their question. A few fruitless searches and they might give up consulting the endnotes altogether. Neither solution – using *or* not using markers for annotations in the primary text – satisfies all readers.

Printed annotations are also unable to address different kinds of readerships with different needs and interests. Annotators of print editions have two equally unsatisfying options: Either they presuppose a very limited readership and only annotate items that this readership will most likely not understand (cf. Berg 218; Mathijssen, “Commentary” 192; Witkowski 134). The annotation will then only provide knowledge that this audience does most likely (a) not possess and (b) regard as relevant for understanding the text. Hence, the decision *what to annotate* as well as *which information to provide* in the annotation is determined by the notion of the intended reader of an edition. The knowledge and interest readers are imagined to have is roughly the same for each annotation; thus, they are neither underwhelmed nor overwhelmed by any of the notes.¹¹ However, there are three problems with this approach: Firstly, even in a very narrowly defined target audience, e.g. German undergraduate university students, readers’ knowledge, interests, and purposes are heterogeneous (cf. Bauer and Zirker, “Explanatory Annotation” 213; Small, “The Editor” 199-200). Thus, the questions of some readers would still remain unanswered, while other readers would be provided with information they already possess or that they regard as irrelevant for their research purpose. Secondly, from a publisher’s perspective, it would not be profitable to create an edition that is tailored to the needs of such a small readership (cf. Göpfert 102). As a consequence, the target audience of an edition *has* to be defined broadly, which means that the individual needs and interests of different readers cannot be taken into account –

¹¹ However, this aim is often not accomplished as annotators frequently have inconsistent assumptions about their target group. For example, they use terms in explanatory notes (without explaining what they mean) that they would annotate if they appeared in the primary text (cf. Bauer and Zirker, “Explanatory Annotation” 216).

at least not in print. Thirdly, even *if* an edition could address a very small target group possessing a more or less homogenous level of knowledge and interest, the annotator would still be unable to ascertain what exactly readers want to know (cf. Mathijssen, “Commentary” 192; Oellers 106; Jungmayr and Mundt 159-160). He or she would inevitably provide too much or too little information on many items in the text.

The other option is trying to accommodate as many different readers as possible and annotate any item that could impair the comprehension or spark the interest of any conceivable reader – from vocabulary unknown to intermediate-level L2 learners to complex concepts that underlie the text and that mainly experts will be interested in. In such a case, the edition “will probably contain too little of interest to any single reader” (Cullen 85). First-time readers will be annoyed by ‘spoilers’, non-experts by extensive and intricate discussions, experts by the reiteration of knowledge they already possess.¹²

Digital Solutions

An open-access digital edition never reaches a small target audience even if its publishers or editors would define such an audience in their guidelines – they are always accessible to every user of the internet. Hence, to an even greater extent than in the case of a printed edition, the readers of a digital edition are vastly heterogeneous in their language expertise, their cultural knowledge, their purposes, and, consequently, in the questions they expect the annotations to answer.¹³ The only satisfying solution for addressing all of these users lies in the interactivity of digital editions, i.e. in their ability “to be flexible so that [they] can be used by different readers with different needs, preferences and objectives” (Karlsson and Malm 16; cf. also Sahle 2: 254). For example, readers who want to immerse themselves in the primary text and not be distracted by annotations could be allowed to disable the indications of annotations in the text, be they superscript numbers or hyperlinks.

More important than the opportunity to make annotations invisible is the possibility to let readers filter annotations in order to find information that is tailored to their individual requirements. This use of interactivity has often been noted in literature

¹² For this problem also see Straub (cf. 229) and Roloff (cf. “Fragen” 132).

¹³ Such an audience is, for example, envisioned by Alyssa Arbuckle who describes the perfect “public digital edition” as not limited to academic scholarship but as “an accessible, instructional, transparent, interactive [...] tool capable of garnering interest and participation across divergent lines of knowledge development or acquisition” (n.pag.).

on digital annotation.¹⁴ However, few theorists acknowledge that this function relies heavily on an appropriate theoretical framework: Annotators have to contemplate which criteria should be used to filter information (e.g. topic or depth of information) and how exactly these criteria are to be defined. These definitions have to be made public in order to guide users' decision which filters to apply. Another condition for filters to work is that the criteria have to be applied consistently to *every* annotation in the edition; otherwise, some relevant annotations are not displayed or irrelevant information finds its way through the filter.¹⁵

Given the virtually infinite amount of knowledge that can be contained in digital annotations, customising functions are even more necessary than in the case of printed notes. For, as was outlined in 2.1, it does not suffice to provide readers with more and longer explanatory notes; one also has to enable them to manage this wealth of information.

New Challenges

As of yet, automatic filters for annotations work better in theory than in practice. Users cannot be expected to read long guidelines about when to use which filter for which purpose, and it is likely that they accidentally filter knowledge that would be interesting to them. However, filtering does not necessarily have to mean that certain annotations are entirely hidden from the reader. One can also display *all* explanatory notes for a text and subdivide their content according to certain criteria. When readers first access an annotation, its different parts would be collapsed and users could expand those that interest them. This way, they see all the available information and can consciously choose what to read and what to skip. Readers would thus be helped to filter themselves rather than rely on a program. A function that hides content could still be implemented for users who have a very clear-cut research agenda and really only want to receive information about a certain topic.¹⁶

¹⁴ See Bauer and Zirker (cf. “Whipping Boys” par. 11, 32; “Explanatory Annotation“ 224, 229-30); Groden (cf. 125); Hoffmann, Jörgensen, and Foelsche (cf. 215); Mathijsen (cf. “Die ‘sieben Todsünden’” 259); Ralle (cf. 147); and Sahle (cf. 2: 190, 254).

¹⁵ A few examples of how digital annotated editions make use of filters are discussed in [chapter 3.3](#). As will be shown, their underlying theoretical concepts are not fully developed; for example, tags are rarely defined or – if defined – applied inconsistently. For a suggestion for a more comprehensive theoretical framework see [chapter 4](#) and the articles by Bauer and Zirker.

¹⁶ For a system that allows both manual and automatic filtering see [chapter 4.2](#).

A further problem is that there is no standard set of criteria for filters that is used by all digital annotating projects. This means that readers have to reorient themselves whenever they use a new edition and have to ascertain whether the criteria employed by one edition are also employed by another. For example, one project could use “language” to denote annotations that explain the meaning of words and phrases while another may use the term for annotations about poetic diction and rhetoric devices. It is unlikely that a common set of standard filters will be used by all annotating projects in the near future. In order to prevent misunderstandings, annotators have to make sure that readers can easily and quickly access the definitions of their filters.

Despite all efforts, interactivity does not guarantee that the individual needs of all readers are addressed. For example, there may be instances in which an annotator simply did not think about offering a certain piece of information on an item. In print, annotators cannot divine which problems readers might have with the primary text, but in the digital realm they can simply ask them. This is where collaboration comes into play.

2.5 Collaboration

Problems in Print

Annotators of printed editions can only guess what readers do not understand and which information they need exactly in order to comprehend the text better. True, it is conceivable (but rather unlikely) that a reader of a published edition writes to the publisher in order to draw their attention to an item that has not been annotated or to suggest further information that could be included in an already existing note. But even if annotators were able and willing to revise their notes according to such suggestions, they could not be included until the next edition – if there is one (cf. Groddeck 2).

Nevertheless, external input is immensely important for annotators, who usually have to work alone and who, naturally, are not omniscient: For example, they simply cannot find *all* hidden allusions in a text, and sometimes their last resort is to provide a note admitting ‘this reference could not be identified’ (cf. Groddeck 2; Bogner 134). Even annotators who are experts on the work they are annotating can never be experts in all the fields of knowledge that inform this work. Thus, a few theorists have suggested that scholars from different disciplines could work together as annotators (cf. Senger 69; Ricklefs 71). This specialisation would ensure that annotators do not have to

read up on multiple different subjects but can concentrate on the quick production of notes that belong to their field (cf. Jannidis, Kohle and Rehbein 211). Even as early as 1975, Frühwald suggested that at least one international journal should give readers a place where they can make suggestions for improvements of, and additions to, already published annotations (cf. “Formen” 32). The more people work on an annotated edition, the vaster the knowledge that informs this edition. However, actual practices of annotating for print are a far cry from such collaborative approaches.

The fact that annotators usually work alone gives rise to another problem: One argument that is often brought forward against annotations is that they delimit interpretation because they only reflect how the annotator reads the text. The author of an explanatory note “can never be a neutral commentator; [...] he is exercising an authoritarian position and will, according to his beliefs, emphasize and de-emphasize certain facets of the text” (Gair 129). This is especially problematic since interpretations that are mentioned in annotations receive a different status than independent scholarly works about a text; the fact that they are included in an edition makes them appear authoritative (cf. Koopmann 54).

Digital Solutions

Without help, annotators cannot know what questions exactly readers have, they sometimes cannot even answer their own questions, and they delimit readers’ interpretation of a text. The only solution to these problems is collaboration – with non-expert readers as well as with experts on the same or related topics.

In a digital edition, readers can attach their question to an item and ask others to elucidate it. Thus, the edition’s official annotator(s) as well as contributing users know exactly what readers are struggling with and they can act accordingly. A practical example is Amanda Visconti’s annotating platform *Infinite Ulysses* (discussed in more detail in the next chapter), in which readers can ask questions or simply highlight passages they do not understand (cf. Visconti, ‘How can you’ 24). She also plans to have a whole list of unanswered questions displayed on the website so that contributors can immediately see which issues still require explanation (cf. 24). The static print edition is thus superseded by a digital open platform, to which users can add material and suggest corrections; the boundaries between editor/annotator and reader begin to blur (cf. Sahle 2: 177; 258).

Another advantage of collaboration is that different contributors can suggest different readings, thereby reducing the risk of delimiting a readers' interpretation of the text (cf. Koopmann 56; Hoffmann, Jörgensen and Foelsche 214). Theoretically, a digital annotated edition can thus amass a growing web of knowledge that strives to leave no question unanswered, no allusion unidentified, no interpretation unuttered.

New Challenges

Such an ideal annotated edition is possible only in theory. For one, not every question *should* be answered if annotators (official ones and volunteers) want to avoid cluttering the annotations with information that is relevant only for readers with a very limited knowledge. Annotators have to presuppose a certain minimum level of linguistic and cultural knowledge, otherwise they would have to annotate basic vocabulary such as “house” or tell readers that France is a country in Europe. Leaving a very small group of readers with an unanswered question is better than leaving a very large group of readers annoyed at the irrelevance of an annotation.

The willingness to contribute annotations will most likely be highest in scholars and non-academic enthusiasts specialising in a work or author. However, how should one recruit contributors that are usually not concerned with a particular author, period, or even discipline? Users cannot be expected to look through the ever-growing number of digital editions and search for exactly those questions they can answer. One might thus think of creating a ‘notes and queries’ website for all unanswered questions from different digital editions, subdivided according to the discipline to which they belong. This, however, would only solve the problem of questions that were recognised as such; hidden allusions could still not be detected without having experts look at the primary text directly.

The main problem with collaborative annotating, however, is the issue of authority and quality. Digital annotated editions should make everyone feel welcome to contribute, they should make available all interpretations users could think of, but at the same time they should also provide reliable and helpful information. As this is such a broad topic, it is addressed in [chapter 6.2](#) in more detail.

2.6 Revising and Adding Material

Problems in Print

One of the most frequently mentioned problems with annotations is that they grow obsolete very quickly (cf. Bluhm 143; Höpker-Herberg and Zeller 54; Jungmayr and Mundt 160; Roloff, “Probleme” 46-47). Through the years, the primary text moves farther away from readers as words begin to become archaic and the events, texts, and persons to which the text refers are forgotten little by little (cf. Jansohn 214; Mathijsen, “Die ‘sieben Todsünden’” 252; 260; Oellers 106). Likewise, the secondary literature cited in annotations soon ceases to be state-of-the-art (cf. Roloff, “Fragen” 134).

In print, annotations cannot be revised without necessitating the publication of a new edition, which happens rarely for some texts and never for many others. Even revised editions of immensely popular texts are published decades apart (e.g. the Arden editions of *Hamlet* were published in 1899, 1982, and 2006). As a consequence, readers frequently have to use annotations that are no longer up-to-date.

Digital Solutions

In the digital edition, the revision and addition of material poses no problem, at least not a technical one. Whenever annotators notice that a word is falling out of use or that a reference may no longer be obvious, annotations for these items can be added. The newest secondary literature can be included immediately after its publication and users can collaboratively add to a growing web of knowledge: The “digital annotated edition may become an ongoing working platform” (Bauer and Zirker, “Whipping Boys” par. 27).¹⁷

New Challenges

The fact that digital annotations *can* be revised does not mean that they *are* revised. There always has to be someone – be it an official annotator or a group of volunteers – who is in charge of tracking the newest scholarly findings and of updating the annotations. This means that an edition is only in keeping with the times as long as it is constantly used and improved by a certain number of people. Yet, Warwick et al. note that there are indeed online editions and platforms that are almost entirely neglected by

¹⁷ Similar visions, called “knowledge site” and “work-site” respectively, are outlined in Shillingsburg (cf. “How Literary” par. 4; 41) and Eggert (cf. “Text-encoding” 433).

users (cf. 1; 6). Even the scholars who have initiated an annotating platform may at some point no longer be able to work on it as their career forces them to turn to new projects (cf. Sahle 2: 80). Hence, the promise of always providing readers with the most recent findings can only be kept if a project has enough regular employees and/or volunteer contributors.

Paul Eggert also cautions that the possibility to constantly improve and revise could lead to lowered standards for the first versions of published notes: “Would we strive for such perfection if the book logic or static completion were not cracking the whip on us?” (“The Book” 64). It has to be ensured that, even at a first stage, annotations adhere to certain standards and are as helpful and comprehensive as possible.

A further problem is the paradox that revision ensures that annotations provide the best and most up-to-date research but that they often cannot be cited in scholarly publications exactly *because* they are constantly improved, which renders their content unstable. The ways in which this problem can be solved are beyond the scope of this chapter and are discussed in 6.3.

3. Current Practices: A Review of Eleven Digital Annotating Projects

The previous chapter showed how annotations can benefit from being published digitally. However, there is no research on the extent to which the advantages of the digital medium have been implemented in actual annotating projects. While online editions in general have started to receive more critical attention in the last couple of years¹⁸, annotations usually do not feature prominently in the reviews of such editions.¹⁹ Their absence or presence is noted, but we do not learn much about their features and they are not evaluated in terms of how their form, content, and features have changed due to their publication in a new medium. The *Annotated Web Edition Directory* published by the Tübingen *Annotating Literature* project strives to close this research gap by compiling a list of digital annotated editions and recording some of their

¹⁸ Most notably in *ride – A Review Journal for Digital Editions and Resources* (est. 2014).

¹⁹ An exception to this is Aodhán Kelly’s *review* of *Digital Thoreau*.

features.²⁰ The present chapter builds on this directory by taking a more detailed look at eleven digital annotating projects.

Many features of annotations are more or less conventionalised in print, for example how the presence of an annotation is indicated in the text or where and how the annotation itself is presented. Thus, one focus of this chapter lies on examining emerging patterns and possible new conventions for digital annotations, for example in terms of layout or citeability. Furthermore, the chapter strives to analyse which parts of these projects constitute a “ground-breaking re-conception” of annotating and which are just “spill-overs from the print medium” (Gabler 48). Based on the review, a best-practice model for several aspects of digital annotating is presented and attention is drawn to issues for which no solution has yet been found.

3.1 Criteria

The digital annotated editions reviewed here are heterogeneous in background, scope, and features. However, three criteria apply to all of them. Firstly, they were either created only very recently or are still regularly updated. (It would be unfair to compare the layout and features of an edition that has not been updated since the early 1990s with those of an edition that was published in 2017.) Secondly, their explanatory notes are not digitised print annotations but were written specifically for the digital platform. Otherwise, the features of some annotations would be determined by their original medium instead of a decision by the editors/annotators. This also means that the annotations of each edition exhibit at least one feature (e.g. the use of videos) that makes it impossible to entirely reproduce them in print.²¹ Thirdly, the explanatory notes are a substantial part of each project, i.e. they do not consist of only a handful of glossaries included for form’s sake. Thus, the sample is not comprehensive but still reflects the current state of the art of digital annotating as the projects reviewed here are among the most advanced of their kind.

The review itself is based on four sets of criteria, namely those of the *Annotated Web Edition Directory* mentioned above, Sahle et al.’s criteria for reviewing digital scholarly editions, Karlsson and Malm’s criteria for investigating to what extent digital

²⁰ Such a catalogue also exists for digital scholarly editions in general: <http://www.digitale-edition.de/index.html>.

²¹ This criterion is also used by Sahle in order to differentiate between genuinely innovative digital editions and editions that only display printed content in a new medium (cf. Sahle 2: 59).

editions make use of the possibilities of the new medium, and Franzini, Terras, and Mahony's suggestions for analysing and cataloguing digital editions. As the last three guidelines are concerned with digital editions in general, only those criteria were used that could be adapted to the evaluation of annotations.

3.2 The Projects and Their Backgrounds

Of the eleven projects reviewed here, only three (*BookDoors*, *Bartleby*, and *Genius*) are not maintained by an academic institution. Four editions are yet unfinished (*Ada*, *Genius*, *Ulysses*, and *Thoreau*); the latter three never will be completed due to their collaborative nature. In the following, the projects will be cited using their shortened name (marked blue in the list below), but in the [Works Cited](#) they are listed according to their editor's name.

(1) **Brian Boyd's edition of Nabokov's *Ada***

This website was launched in 1992, but the layout was modernised in 2002, and the website is still updated. The project is "written, developed and maintained" by Brian Boyd, a professor at the University of Auckland.

(2) ***Internet Shakespeare Editions (ISE)*, exemplified by John Cox's edition of *Julius Caesar***

The *ISE* strives to provide "open-access, peer-reviewed Shakespeare resources with the highest standards of scholarship, design, and usability" ("[About](#)"). The project is maintained by a board of editors and supported by the University of Victoria. Some texts, e.g. *Antony and Cleopatra*, do not yet have any annotations.

(3) ***BookDoors*, exemplified by Richard Fadem's edition of *Pride and Prejudice***

This project was initiated by Richard Fadem, emeritus professor of English. It is not backed by an academic institution. As of today, twelve annotated nineteenth-century novels are available. It is the only (semi-) commercial project reviewed here: annotated texts can be read online for free or downloaded (e.g. for Kindle or iPad) for less than three dollars. The project claims to provide "the most thoroughly annotated editions of those titles in print or online" ("[About BookDoors](#)").²²

²² This, however, is very unlikely. For example, the *Romantic Circles* edition of *Frankenstein* (ed. Stuart Curran) is much more extensively annotated than the *BookDoors* edition.

(4) *The Mark Twain Project*, exemplified by Victor Fischer and Lin Salamo's edition of Twain's *The Adventures of Huckleberry Finn*

This project is maintained by the "Mark Twain Papers and Project of The Bancroft Library in collaboration with the University of California Press; the site is hosted by UC Berkeley's Library Systems Office" ("[About This Site](#)"). The editions are approved by the MLA.

(5) *Genius* (no editor), exemplified by Shakespeare's "Sonnet 18"

Genius is currently the most popular social annotating project. It was founded in 2009 and originally only focused on annotations to rap lyrics. By now, annotations can be added to song lyrics of all genres as well as to literary texts. By the project's own account, the annotations on *Genius* are read by over 100 million people each month.

(6) Andrew Kahn's edition of Melville's *Bartleby, The Scrivener*

This edition was published on the website of *Slate* and is not backed by an academic institution.

(7) *The John Milton Reading Room*, exemplified by Thomas H. Luxon's edition of *Paradise Lost*

The *John Milton Reading Room* was launched in 1997 and received a new layout in 2014. All works are edited by Professor Thomas Luxon (Dartmouth College).

(8) John O'Neill's edition of Cervantes' *La Entretenida*

The annotated edition of Cervantes' play is part of the editor's PhD thesis at King's College London.

(9) *The Readers' Thoreau*, exemplified by Paul Schacht's edition of Thoreau's *Walden*

This interactive edition is part of the *Digital Thoreau* project, which is directed by Paul Schacht and backed by the SUNY and the Thoreau Society.

(10) *Richard Brome Online*, exemplified by E. Schafer's edition of Brome's *The City Wit*

The *Richard Brome Online* project is maintained by the University of London and the University of Sheffield.

(11) Amanda Visconti's edition of Joyce's *Ulysses*

Infinite Ulysses is part of the editor's PhD thesis on collaborative annotating at the University of Maryland.

3.3 Annotations: Extent, Systematisation, and Interactivity

As has been outlined in chapter two, the lack of space restrictions in the digital medium allows annotators to write more numerous and longer notes. Furthermore, websites can provide readers with tools that help them filter this wealth of annotations in order to receive only the information that is relevant to them.

Extent

“Numerous” and “long” are, of course, relative values. Hence, the Arden Shakespeare series has here been chosen as a standard because it is the most prominent example of extensively annotated print editions. In this series, there is usually about one annotation per line of iambic pentameter; the length of annotations ranges from one to ca. 120 words.

On average, the *ISE*, *Milton*, and *Thoreau* offer about **as many and as long** annotations as the Arden series. However, unlike these print editions, the three digital editions usually provide neither very short (< five words) nor very long annotations (> 50 words). The *Milton* edition often includes hyperlinks to external resources – if one counts this supplementary material in, the notes are considerably longer than printed ones. Due to the collaborative nature of *Thoreau*, it is likely that more notes will be added (even though there is currently little activity on the website). Contributors could theoretically add longer annotations to this project, but in practice most notes are rather concise.

Four of the editions provide **slightly fewer but much longer** annotations than a printed Arden edition. Many of the notes in *Bartleby*, *Entretenida*, *BookDoors*, and *Twain* consist of around 100 words; the longest notes in *Bartleby* have almost 300 words, those in *Entretenida* more than 300, those in the latter two editions about 500.

Ulysses is the only edition offering annotations that are about **as long** (often even slightly shorter) as those in the Arden editions but **more numerous**. As this edition relies on collaborative annotation and as the same item can be annotated several times, the amount of explanatory notes will still increase. Technically, contributors are able to write very long annotations, but I did not find an example of such a note on the website.

Ada and *Brome* provide readers with notes that are both **longer and more numerous** than printed ones. In *Ada*, there are more annotated items than non-annotated

ones, the great majority of them consisting of more than 100 words. In *Brome*, some annotations even have more than 2000 words.

The extent of the annotations on *Genius* is hard to determine because, unlike *Thoreau* and *Ulysses*, this project does not offer one text for annotation but thousands. Depending on how popular a primary text is with the contributors, there can be annotations for every line or only for a single word. The length of the annotations often ranges between 50 and 150 words. *Genius* also differs from *Thoreau* and *Ulysses* in that it does not allow contributors to create overlapping annotations and that there can only be one annotation per item.

Systematisation and Interactivity²³

Four of the editions that are reviewed here, namely *Entretenida*, *Genius*, *Milton*, and *Twain*, use **no system** that would allow users to find exactly those pieces of information that address their individual needs and interests.²⁴ The other seven editions employ different methods for categorising annotations, with criteria ranging from the length of an annotation, to the level of expertise that can be found in it, to its content, and to a mix of variables.

The *ISE* is the only edition that uses the first option, namely a system that takes into account the **length** of an annotation. The website differentiates between three levels of annotation, level one giving concise, basic information, level two being “roughly equivalent to current annotation in editions like the Arden or New Cambridge”, while the “third level of annotation will normally be a substantial discussion” (“[Notes and Commentary](#)”). However, I could not find a level three note in the edition of *Julius Caesar* even though it is one of the most extensively annotated editions on the website. There is no automatic filter function, i.e. users cannot choose to be provided with level one notes only, for example. The different levels are visualised through colour coding, meaning that an item for which just a level one note is provided is underlined in bright green, while items on which more extensive information is offered are underlined in dark green. Both levels are displayed in the same window; a smaller font is used for level two annotations.

²³ This criterion has been adapted from the guidelines of the *Annotated Web Edition Directory*.

²⁴ A few annotations on *Genius* have tags, but these tags are not applied to a specific work or author but to all texts on the website. I.e. if one were to click on the tag “nature”, one would see all annotations that use this tag, not only those that refer to a single primary text.

The systematisation in *Ada* is based on the **level of expertise** that informs the notes, or, in other words, the readership whose perspective they adopt. For this aim, the notes are divided into forenotes, afternotes, and annotations proper, the two former referring to whole chapters, while the latter elucidate single items. The forenotes “suggest how each chapter of the novel has been designed to work for first-time readers” (“**Forenotes**”), while the notes proper are aimed at readers who are already familiar with the novel even though they are no experts. The afternotes “attempt to provide the rationale for the chapter for an expert re-reader of *Ada*” (“**Afternotes**”). Hence, the annotations take the perspectives of beginner, amateur, and expert. The notes proper are not additionally systematised (e.g. according to the field of knowledge they address), which makes the categorisation of *Ada* very broad.

Bartleby, *BookDoors*, and *Brome* differentiate annotations according to their **content**. However, their criteria for this vary considerably. *Bartleby* uses ten non-exhaustive categories (comedy, commentary, economics, history, medicine, Melvilliana, modern, philosophy, queer, sources). Readers can filter annotations “by topic if [they] would like to concentrate on a particular thread of “Bartleby” interpretation“ (Kahn n.pag.). However, the exact criteria for each topic are not defined, and readers might wonder which exact fields of knowledge categories like ‘commentary’ and ‘modern’ refer to.

The systematisation of *BookDoors* is rather comprehensive and divided into *types* and *categories*. The three types (‘word definitions’, ‘historical background information’, ‘discussion’) provide readers with a first inkling of the content of the annotation. The type of an annotation is indicated by a superscript *w*, *h*, or *d* attached to the annotated item. Furthermore, there are 20 categories that provide further guidance concerning the content of the note.²⁵ Not every annotation has a category, but each annotation can only have one type and one category. The categories are not defined and it is not always clear how the annotator decides which category to apply (e.g. “Gender” and “Love and Marriage” partly overlap; the same goes for “Science and Technology” and “Transportation”).²⁶ Thus, the categorisation is not entirely transparent. This also affects the search function of the website, which only allows readers to get results from

²⁵ i.e. Amusements, Arts, Body, Class, Custom and Law, Daily Life, Education, Gender, Love and Marriage, Manners and Morals, Military, Mind, Money, People, Places, Religion, Science and Technology, Things, Transportation, Writing and Reading.

²⁶ The use of types is also sometimes unclear. For example, the annotation on “**nerves**”, which is marked with a *w* (ch. 1 p. 2), is not a word explanation but a discussion on Austen’s opinion regarding physical strength.

either all categories or merely one of them. Furthermore, there is no filter that hides and shows annotations of selected categories or types.

The systematisation in *Brome* is very broad as the edition only differentiates between four types of annotations: (1) “commentaries”, which are introductions to each act and concerned with its general structure and content, (2) “glosses”, i.e. word explanations, (3) “notes” concerning context and performance, literary conventions, sources, videos, etc., and (4) “textual notes”, which record variants (cf. “[The Annotations](#)”). Glosses are indicated by a superscript cross, while the other three types are indicated by a superscript asterisk. On the “About” page, all types are defined at length. The annotations cannot be filtered. As the different types of explanatory notes are so broadly defined and as three of them share the same ‘sign’, readers are not able to make much use of this categorisation.

Thoreau and *Ulysses* use **several variables** for systematising annotations. In both editions, contributors can apply pre-existing tags or create new ones in order to describe the **content** of an annotation (e.g. “nature”). While the volunteer annotators on *Ulysses* often make use of this possibility, tags are rarely employed in *Thoreau*. I was unable to find a comprehensive list of tags or definitions of tags for either project.²⁷ Both *Thoreau* and *Ulysses* allow readers to filter annotations by their **contributor**. In addition to that, users of the former can choose only to see notes posted by a certain **group** of annotators (e.g. the ‘panel of experts’). In *Ulysses*, the **order** in which annotations for the same item are displayed can also be determined by readers (e.g. highest rated or oldest). In the future, the creator of *Ulysses* also wants to systematise annotations according to the **depth of information** they supply:

A Shakespearean scholar may want to read analyses of Joyce's allusions to a specific play, while a first-time reader may just want to know what the play is called and what its mention means in the context of the novel. (Visconti, ‘*How Can You*’ 86)

Conclusion and Suggestions for Best Practice

Surprisingly, only two of the eleven projects reviewed here offer annotations that are both longer *and* more numerous than the notes usually provided in an Arden edition. In terms of addressing the needs of different readers, the majority of projects use certain ways to systematise annotations. For example, users can see whether a note contains brief or extensive information, or which field of knowledge it is concerned with.

²⁷ For *Ulysses*, there is one “[chunk](#)” in which a few but not all tags are recorded.

However, none of these systems is entirely transparent and user-friendly because criteria are often defined very broadly (or not at all) and not always applied consistently.

Creators of a digital edition have to assume that readers with very different backgrounds, interests and needs will access it. Given the amount of funding and time required for the creation and maintenance of an online edition, it would not make sense to publish a different edition for each different user group. Hence, if an edition wants to be successful and widely used, its annotations must answer the questions of as many readers as possible. This means that there have to be both many annotations – for each item that may raise questions in a certain group of readers – and long annotations that contain different kinds and depths of information for different users.

An elaborate and well-designed system underlying the annotations makes this great amount of information manageable and ensures that all readers find exactly that part of an explanatory note that is relevant for them. In order to give users as much guidance as possible, a mix of different variables is recommended: Concerning the length of an annotation, readers should know how detailed the information they are about to access is. First-time readers should also be allowed to hide ‘spoilers’. The categories for content have to cover all fields of knowledge and must be properly defined so that readers know where exactly to find the information they are looking for. Guidelines on how annotations should be divided into different parts according to their length and topic are especially important in collaborative annotating projects. Each contributor should know which information belongs where; otherwise, the systematisation becomes inconsistent and thus unusable. The detailed guidelines of the Tübingen *Annotating Literature* project will be presented in [chapter 4.2](#).

3.4 Layout

This subchapter examines how the presence of an annotation is indicated in the primary text and how the annotation itself is presented. For screenshots of each edition see [Appendix 1](#). Clicking on the name of a project leads you to the respective page in the appendix.

Indicating Annotations

Two of the editions use the conventionalised markers of print annotations, namely **superscript numbers or signs**. *Entretenida* uses an individual number for each annotation, while *Brome* employs three symbols: a cross for glosses, an asterisk for all

other written annotations, and a film reel for videos. However, superscript writing does not allow annotators to indicate whether the note refers to a word, sentence, or passage; hence, longer items cannot be marked in this manner.

Genius and *Ulysses* mark annotated items by **highlighting** them. In *Genius*, all highlights have the same colour; only when one hovers over the text does the entire passage to which an annotation refers become yellow. Unicoloured highlights cannot show how annotations overlap; this function, however, is not necessary in *Genius* because the project does not allow overlapping notes. In *Ulysses*, annotations can overlap and the edition uses highlights that become darker the more notes there are for an item in order to indicate such overlaps. However, the markings soon become confusing when there are many notes for one passage. Highlights are rather intrusive markers, which, in the case of these two projects, is not very problematic as their main aim is to provide readers with an annotated text. Unless such highlights can also be turned off, they are not suitable for websites that also want to address readers who are mostly interested in the primary text.

In almost half of the editions, the presence of an annotation is indicated by **underlining** the annotated item, which thus resembles a hyperlink. In *Ada*, *Bartleby*, *BookDoors*, and *Milton*, the signs that mark the annotation cannot be hidden; this is only possible in the *ISE*. Underlining items means that it is difficult to mark very long or overlapping annotations without cluttering the text with lines. Furthermore, it is perceived as very intrusive by most users (cf. McKay “Labels and Instructions”).

The square **brackets** around annotated items in *Twain* are rather unobtrusive and also allow for the indication of overlapping annotations. However, when many words or passages are annotated, readers might become confused as to which brackets surround which item. Yet, this problem is partly mitigated by the fact that, when a reader clicks on a bracket, the explanatory note for this item is immediately displayed and marked in blue. Likewise, when one clicks on an annotation, the primary text moves to the passage that is elucidated in this note. The exact beginning and end of the annotated item is also displayed at the top of each annotation. Thus, in terms of user-friendliness and clarity, the layout of *Twain* is very advanced.

The same goes for *Thoreau*, which uses a similar method. In contrast to *Twain*, there are **no indications** in the text itself that point to the existence of an annotation. Hence, the edition can also be used by readers who are only interested in reading the primary text without elucidations. In the right margin, readers can see how many notes

there are for each paragraph. When a user clicks on a passage, the first annotations for this passage are displayed in the right margin; when a user hovers over an annotation, the annotated passage is marked in yellow. This means that there can be many overlapping notes without causing confusion. However, this latter function does not always work, which impairs the otherwise excellent user-friendliness of the edition.

Presenting the Annotations

In seven of the editions, the annotations are by default displayed on **the same page** as the primary text **without covering** any part of it. In *Ada*, the notes can be described as footnotes as they are presented below the primary text. In *Bartleby*, *Genius*, *Milton*, *Thoreau*, *Twain*, and *Ulysses*, the annotations are situated in the **right margin** of the page, which – according to empirical evidence – is the best place for them (cf. Nation 177; Jacobs, Dufon, and Hong 26; Ko 125). In the cases of *Ada* and *Twain*, the notes can also be opened in a separate tab. In *Milton* and *Thoreau*, the annotations only appear once the reader asks for them, while the other five editions display at least some of the notes from the very beginning.

In *Brome* and *ISE*, the annotations are displayed on the **same page** as the primary text, but the pop-up windows **cover** substantial parts of the text. This is far from user-friendly, especially if readers have to scroll down some of the 2000-words notes in *Brome* without being able to see which part of the primary text exactly they are referring to. In the case of *ISE*, users can move the pop-up windows around. This is not possible in *Brome*, which only allows readers to open the annotations in a new tab, in which they are presented as print-friendly endnotes below the entire primary text. However, this function is rather hidden.

In *BookDoors*, users can easily choose between two different modes of display. Annotations can either be opened in pop-up windows on the **same page** or in **new tabs**. When a reader clicks on the annotated item, a pop-up window covering the primary text appears. When the annotation is short, it is displayed as a whole; when it is long, only its beginning is shown. In the pop-up window, there is a link that opens the whole annotation in a new tab. This pop-up note allows users to receive the most important information right at the beginning and, on the basis of this information, to decide whether they want to read on in the new tab.

Entretenida uses a solution similar to *BookDoors*. When the mouse **hovers** over the superscript number of an item, a **pop-up** annotation covering the text appears and

shows the *whole* text of the annotation, not just the beginning. When the reader **clicks** on the superscript number, a page containing all annotations for the drama is opened in a **new tab**. The page of the new tab automatically moves to the annotation for the item the reader has just clicked on.

Conclusion and Suggestions for Best Practice

Even though most projects reviewed here underline annotated items, this solution is not ideal because it is intrusive and cannot satisfactorily mark longer or many overlapping passages. Ideally, readers should be able to choose whether and how exactly the presence of an annotation is indicated in the primary text. When they want to concentrate on the primary text, they could turn off all marks (as possible in *ISE*), while the highlights used in *Ulysses* are suitable for getting a first idea of which parts of the text are more heavily annotated than others. As in *Thoreau*, users should be able to click on an annotation and see indications in the text that show the exact passage to which the note refers. None of the projects offers a solution for readers who do not want to be distracted by any signs in the text or notes already displayed on the page but still want to have immediate access to annotations. A possible way to accommodate them could be as follows: There would not be any signs in the primary text or on the page in general that indicate the presence of an annotation. However, as soon as the mouse hovers over a word, a pop-up window appears that tells readers which annotations are available for this word or passage. The window would disappear as soon as the mouse is moved elsewhere. When readers are interested in any of the notes, they could click on the respective entry in the window and be led to the entire annotation.

Concerning the presentation of annotations, many projects have opted for displaying them in the right margin. In terms of best practice, the solutions presented by different editions could be combined and offered as various options from which readers can choose the one that best suits their preferences. For example, pop-up windows that disappear as soon as the mouse moves away (as used in *Entretenida*) are best suited for users who only access short notes and do not want to be distracted by having to open the notes in the margin or in a new tab. The margin lends itself for medium-length explanations and may be used by readers who want to look at the text and the notes simultaneously, e.g. because they wish to contemplate whether a reading suggested in the annotation can really be substantiated by the text. Long notes might best be opened in new tabs as this allows readers to immerse themselves in the annotation and does not

force them to constantly scroll down. Furthermore, it is recommendable to provide print-friendly versions of the annotations, for example in the form of a pdf.

3.5 Hyperlinking

This criterion is adapted from Karlsson and Malm (cf. 18), Franzini, Terras, and Mahony (cf. 181), and Sahle et al. (cf. n.pag.).

Surprisingly, in six of the editions hyperlinks are either entirely **absent or used very sparsely**. In *Bartleby*, *BookDoors*, *Brome*, and *Twain*, the annotations neither contain links to supplementary resources nor to other explanatory notes. In *Entretenida*, the notes only link to the corresponding entries in the list of works cited. According to the guidelines of *ISE*, the annotations *should* link to further resources, but this aim has not yet been achieved in *Julius Caesar* (cf. “[Notes and Commentary](#)”). In this edition, the annotations merely sometimes link to other parts of the primary text.

In *Ada*, a separate page provides links to other websites concerned with Nabokov’s novel. The annotations themselves do not lead readers to the bibliography of the project or to external resources, and they do not contain links to other annotations. However, there is an extensive **list of motifs** (e.g. “red hair” or “time”) that collects links to all annotations concerned with each motif.

Thoreau offers contributors the **possibility** to include links to other parts of the primary text, to external websites, and to other annotations. For this aim, each annotation has its own permanent URL. However, this function is comparatively **neglected** by users, and the annotations in this project rarely contain links. A special feature of this edition is that users can find articles on JSTOR that quote a certain passage of Thoreau’s *Walden* by clicking on a button that is displayed below the annotations for the respective passage. A link leads users directly from *Thoreau* to the JSTOR article.

In contrast to the contributors of *Thoreau*, those of *Genius* and *Ulysses* frequently include **links to other websites** in their notes. In addition, users of *Genius* often link to resources that are provided on the **same website**, e.g. to authors’ biographies or definitions of poetic devices. Each annotation in these two projects has its own citeable URL, so references to other notes are possible as well. Yet, contributors in both projects only rarely make use of this possibility.

The creator of *Milton* names hyperlinking as **one of the main features** of the project (cf. “[About the John Milton Reading Room](#)”). The annotations contain links to

other parts of the primary text, to other works by Milton that appear on the same website, and to external resources. For example, whenever they mention a literary work, the annotations provide a hyperlink to its full text, usually to a reliable version on scholarly websites like the *Perseus Digital Library*. In other cases, however, the explanatory notes only refer readers to the Wikipedia, which impairs the reliability of the annotations. Despite the focus on hyperlinking, there are no links between annotations.

Conclusion and Suggestions for Best Practice

Given the advantages of linking that were outlined in [chapter 2.3](#), it comes as a surprise that most editions do not make much use of them. While links to other parts of the primary text and to external resources are at least sometimes included, links *between* annotations are almost entirely absent. Even if contributors are given the opportunity to link notes by having access to the individual URL of each of them, they usually do not take it. As of yet, it is unclear whether their reluctance is due to the fact that they do not want to do something no one else in their project does or because they find links between annotations unhelpful. In the future, such links should be included more often and readers' attitude towards them should be investigated through user surveys. Of course, hyperlinks often "complicate[s] our immersion in the texts, because we feel a psychological need to pursue the distractions offered by the links" (Rasmussen 131). Thus, readers who do not want to be distracted by such hyperlinks should be allowed to turn them off. However, hyperlinks have great advantages for academic reading and most scholars will appreciate the immediate access to further information (cf. Veit 45-46). For this purpose, annotators must always evaluate the quality and reliability of the external pages they link to. Users should also have the possibility to report 'dead' links. Links to articles behind pay walls (as provided in *Thoreau*) may cause annoyance to users who do not have access to them, but they simplify the work flow of those who do. As a digital annotated edition is ideally addressed to both scholars (who often have access to such material) and non-scholars (who usually do not), editors have to decide which user group they rather want to accommodate in such a case.

3.6 Multimedia

The following subchapter does not only investigate whether the annotations contain multimedia elements but also which multimedia features they use exactly. This criterion is adapted from Karlsson and Malm (cf. 21) and the *Annotated Web Edition Directory*.

Four projects, *Bartleby*, *Entretenida*, *ISE*, and *Twain*, **do not use any** multimedia elements in their annotations. However, in the case of *Bartleby* and *Twain*, the primary text includes a few images, and subscribers of *Slate* can download an audio book of Melville's novel.

BookDoors and *Milton* use multimedia **only rarely and only pictures**. In both cases, the images are not included in the annotation itself but open in a new tab, either on the same website or on an external resource.

There are **many pictures** in *Ada* but no other multimedia elements. The images are not included in the annotations; however, they are displayed on the same page as both the primary text and the annotations. The website also contains a list of all pictures that it uses.

Only four projects also include **videos and audio files** in their explanatory notes. In *Thoreau* and *Genius*, different multimedia elements can be directly included in the annotation. In the case of the former, however, contributors rarely take this opportunity. Users of *Ulysses* cannot display multimedia features in the note itself, but they can include links to external websites that provide them. In *Brome*, videos play an essential role. They were filmed specially for the *Brome* editing project and illustrate possible ways of performing a scene. The differences between the various ways of acting this scene are also discussed at length. The website furthermore offers a complete list of all images and videos that are used in the annotations.

Conclusion and Suggestions for Best Practice

As of yet, annotations rarely directly include images, let alone audio files and videos. More often, they lead readers to images in new tabs or on external websites. The innovative approach taken by *Brome* shows that the inclusion of multimedia elements can indeed enrich understanding in ways that are impossible in print. However, empirical studies also suggest that, under some circumstances, such elements can even hinder understanding (cf. Plass et al. 222). Likewise, the [results](#) of the user survey in chapter five show that readers are very divided over the question whether annotations should include images, videos, and audio files. Hence, users who feel distracted by

multimedia elements should be enabled to hide them from view. For those readers who appreciate them, it might be best to have these elements embedded directly into the annotation so that they do not have to take the trouble of opening a new tab or window.

3.7 Collaboration

This subchapter analyses the ways in which users can add and revise annotations. A similar criterion is also used by Karlsson and Malm (cf. 20), Franzini, Terras, and Mahony (cf. 181), and the *Annotated Web Edition Directory*.

Bartleby, *BookDoors*, *Brome*, *Entretenida*, *ISE*, *Milton*, and *Twain*, i.e. the majority of the projects reviewed here, **do not enable their users to contribute** to the annotations. *Ada* is not a collaborative edition either, but the editor asks readers to “note corrections or additions or make other suggestions“, which they can email him or the editor of *The Nabokovian* (“[ADAonline: Past and Future](#)”).

Only *Genius*, *Thoreau* and *Ulysses* ask for their **users’ active contribution**. For these three projects, collaboration is not a minor, additional feature but the very heart of the undertaking. In all cases, contributors have to be registered before they can write or revise annotations. In *Thoreau* and *Ulysses*, the editors have ensured that users do not have to start from zero and added a number of annotations as models and incentives.

In terms of their aims as well as *who* uses them *how*, the two academic editions seem to differ slightly. In *Ulysses*, the focus lies on an entirely public interplay between beginners and experts, while *Thoreau* also allows the private exchange of scholars. In *Thoreau*, users can join groups or create new ones, e.g. for a university seminar or a conference. They can decide whether the annotations created in these groups are visible to everyone or just to group members. Contributors are also marked according to their level of expertise, e.g. some users are part of the ‘group of experts’. *Ulysses* is meant to encourage readers of all backgrounds to add annotations or simply to ask questions regarding the novel; their status in terms of knowledge and experience with the novel is nowhere recorded. Personal or emotional comments on the text are also accepted (cf. Visconti, ‘*How Can You*’ 21). Thus, while the notes in *Thoreau* seem to be primarily meant to elucidate and discuss the primary text on an advanced level, *Ulysses* also explicitly encourages beginners to communicate their individual response to the work.

Genius is a collaborative annotating project that is not backed by an academic institution. Registered users can add annotations, suggest improvements for existing annotations, and ask other annotators questions concerning a text. By contributing to the

project, users gain “IQ points”; depending on how many of these points they have earned, users have different rights, e.g. to upload song lyrics. A special feature of *Genius* is that artists are invited to annotate their own texts. This opportunity is often taken, even by ‘big names’ such as Eminem.

All three editions strive to give readers an idea of the helpfulness or reliability of their annotations. In *Ulysses*, registered users can rate and filter notes for their usefulness (cf. Visconti, ‘*How Can You*’ 14). Spam or other inappropriate contributions can also be flagged for moderation (cf. 14). Thus, even though the editor explicitly does not want to set limits to user contribution, a minimum of quality is guaranteed. In *Thoreau*, readers can see which group a comment was posted in (e.g. ‘general discussion’ or ‘Thoreau Society AG 2016’). Hence, they get a rough idea of the respective contributor by being informed whether he/she is an ‘ordinary’ user or an expert on the topic. Users can also “like” notes, but this is rarely done. On *Genius*, annotators have to adhere to certain general guidelines (like “Don’t restate the lyric” or “Avoid plagiarism and speculation”). Such rules are especially important because, in contrast to the other two projects, the user group of *Genius* does not primarily consist of scholars. Contributions on *Genius* are published immediately, but they are marked as “unreviewed” until an editor accepts them and they become official ‘Genius annotations’. Editors can also revise or reject annotations (in the latter case the user loses “IQ points”). Changes that users make to their own annotations also have to be accepted by an editor. Other contributors can up- and down vote notes as well as comment on them in order to make suggestions as to how they could be improved. As in *Ulysses*, users can flag annotations for moderation.

Conclusion and Suggestions for Best Practice

While most editions analysed here do not allow their readers to add or discuss annotations, *Genius*, *Thoreau* and *Ulysses* are examples of successful collaborative annotating projects. These three also show how the ways in which user input is encouraged and mediated can differ. Editors have to decide whether they pose any limitations in terms of quality or relevance, thereby potentially driving away possible contributors, or whether they allow all kinds of annotations, thereby risking that some of the notes will not add much to other readers’ understanding of the text. For each project, there should be clear guidelines on which contributions are deemed acceptable. Furthermore, if the edition relies on a system for annotations, the guidelines should

explain to users how exactly they have to categorise their contributions in order for them to be consistent with the rest of the annotations in the project. None of the three projects aims at providing readers with annotations that are reliable enough to be unhesitatingly quoted in a scholarly work. As of yet, there is no satisfactory solution for ensuring the academic quality of annotations in a collaborative project. For a more detailed account of this problem see [chapter 6.2](#).

3.8 Citeability

This subchapter examines the ways in which editions guarantee that their annotations are unambiguously identifiable and that their content is stable, thereby ensuring that the edition can be cited in scholarly publications. The first part of this question is adapted from Sahle et al.'s guidelines (cf. n.pag.).

In *Bartleby*, the notes can only be cited using their **title**; they do not have their own URLs or identification numbers, and the lines of the primary text are not numbered. In some cases, this might make it hard to quickly and unequivocally identify a cited annotation. There are no indications that the content of the annotations will ever be revised; in this respect, scholars can quote them unhesitatingly.

In three projects, the citeability of annotations relies on **print conventions**. In *Ada*, the notes can be identified because they are tied to the page and line numbers in a printed edition. Similarly, the annotations in *ISE* use the act and line number of the primary text, those in *Milton* only the line numbers. In all three editions, it does not seem that the annotations will be altered at any point after their publication, so the stability of their content is ensured.

In *Brome*, only the annotations in the print-friendly version can be identified quickly and unambiguously because each note has its own **identification number**. The pop-up annotations in the default view do not have URLs or identification numbers. In *Entretenida*, the annotations are successively numbered, both when they appear as pop-up notes and when they are displayed in a new tab. The problem with successive numbering is, of course, that it is hard to add or delete notes without causing disorder. In both *Brome* and *Entretenida*, the content of the notes seems to be stable.

In *BookDoors*, *Genius*, *Thoreau*, *Twain*, and *Ulysses*, each annotation has its own **permanent URL**, which allows users to cite notes quickly and unambiguously. *Twain* even goes a step further in terms of user-friendliness and provides readers with a complete Chicago-style works cited entry for each annotation. The content of the

explanatory notes in *BookDoors* and *Twain* seems to be stable. In the case of *Thoreau* and *Ulysses*, each annotation can, theoretically, be altered or even deleted by its author. On *Genius*, all versions of an annotation are archived and can be accessed by users. However, the different versions do not have timestamps and thus cannot be unambiguously identified. Changes to annotations have to be accepted by an editor. Likewise, only editors (and ranks higher than editors) can delete notes. Of the collaborative projects, *Genius* thus has the most elaborate way of ensuring the stability of the annotations, but even this system is still not perfect. The issues of reliability and persistence that can impair the quality of a collaborative project also extend to non-collaborative editions that plan to revise or add annotations at a future stage of their project.

Conclusion and Suggestions for Best Practice

All editions reviewed here have found a solution for making their annotations citeable, but some are more user-friendly than others. The most advanced use permanent URLs for every single annotation; other persistent identifiers (e.g. DOIs) are also thinkable. One still has to find a way that allows annotators – be they official ones or voluntary contributors – to add, change, and even delete notes without compromising the persistence and reliability of the edition. [Chapter 6.3](#) will discuss this problem in detail.

4. Our Proposal: The Tübingen Explanatory Annotations System

4.1 Why a System Like TEASys is Needed

The evaluation of eleven digital annotating projects in chapter three has shown that most of them indeed systematise their explanatory notes according to one or more criteria in order to help readers find the information they desire. However, these criteria are either defined very broadly (e.g. in *Ada* and *Brome*), or not defined properly and hence potentially applied inconsistently (e.g. in *BookDoors* and *Bartleby*), or are only used for some annotations (e.g. in *Thoreau* and *Ulysses*). Hence, the systems that underlie the annotations in these projects remain rather untransparent and do not sufficiently help readers find exactly those parts of an annotation that are relevant and interesting to them.

Since 2011, a solution is being developed that strives to better meet the individual needs and requirements of each user: the Tübingen Explanatory Annotations

System (TEASys) (cf. Bauer and Zirker, “Whipping Boys” par. 10). As it is impossible for annotators to ascertain each potential reader’s knowledge and interest, a different approach to reader-orientation was chosen: Rather than on “any defined contemporary or historical or intended readership”, it relies on a “consideration of the text and its hermeneutic challenges” (Bauer and Zirker, “Explanatory Annotation” 213). For each item in the text that might give rise to questions, an annotation is provided that includes different pieces of information that are useful for different kinds of readers. TEASys then shows readers exactly which pieces of elucidation are available in an annotation so that they can make an informed choice as to which ones to access and which ones to skip. In other words, the system developed by the Tübingen *Annotating Literature* project makes “transparent what an explanatory note accomplishes” (Bauer and Zirker “Whipping Boys” 18). For this aim, TEASys uses **levels** to describe the depth and extensiveness of the information that is being provided and **categories** that give readers an idea of the fields of knowledge that are addressed in the annotation.

TEASys is a universally applicable system that makes transparent to both annotators and readers how an explanatory note is constructed from interconnected pieces of information. Many theorists have denied the possibility of there being a unified theory for annotating different kinds of (literary) works.²⁸ Too different are the texts from various periods, genres, and cultures. TEASys, however, is flexible enough to be used for the annotation of a variety of different literary texts. This has already been proven in practice: for several years the annotating groups in Tübingen have successfully used this system to elucidate literary texts from different times and genres. Through the addition of new categories, TEASys could theoretically also be adapted for the annotation of various kinds of non-literary texts, for example legal ones.

4.2 Levels and Categories

Levels

Not all readers need or want to receive the same amount of information from an annotation. While some want to focus on the primary text and thus require only the briefest elucidation possible, others might use the annotations for academic purposes and be grateful for extensive information and numerous references to further secondary

²⁸ See, for example, Frühwald (cf. “Formen” 17-18); Kanzog (cf. “Historizität” 82); Battestin (cf. 3); Arnold (cf. “Vom heuristischen Wert” 237); Hettche (cf. 141); and Jansohn (cf. 213).

sources. Besides, some readers already have a certain amount of knowledge about a primary text and hence do not need to be offered information unknown to users who are entirely new to this text and its contexts.

The notion of an annotation having different levels of depth is not entirely new. Even some print editions provide a similar systematisation: The Norton Shakespeare (ed. Greenblatt), for instance, provides ‘first aid’ in the margins of the text and more extensive background information in the footnotes, while the Riverside Chaucer (ed. Benson) offers vocabulary explanations in the footnotes and more detailed explanations in the endnotes.²⁹ In the context of *digital* editions, Shillingsburg mentions “explanatory notes with the possibility of several levels of detail” (“Principles” 24), and Steding argues that in hypertext “the selection and presentation of data should follow the principle of ‘details on demand’” (129). In a similar strain, Groden suggests to present the information of annotations “in layers, so that a series of screens starts with basic factual and identifying information and then expands into more elaborate information and ultimately into various interpretations” (125-26).³⁰ However, except for Groden’s theory, all other suggestions remained rather vague with respect to their criteria for each level – this changes with TEASys.

The levels used in TEASys are relative instead of absolute. This means that they do not describe the degree of expertise they presuppose their readers to have (e.g. level one – undergraduate student; level three – professor). Rather, they show how the information provided on a higher level builds on lower levels (cf. Bauer and Zirker, “Explanatory Annotation” 229). For example, level one could briefly inform readers that the primary text does not adhere to a certain genre convention, and level two would – based on the information provided on the previous level – discuss possible reasons why this convention is broken and how this might affect the interpretation of the text. Every annotation can have three levels; the minimum is one. There can be no level two without there being a level one and no level three without there being both level one and two. The respective levels are defined as follows:

²⁹Also for print editions, Koch argues that an annotation should offer a wealth of information and neatly organise it so that users can quickly find those parts that address their questions (cf. 139).

³⁰ For a more detailed explanation of Groden’s plan see 125-26 in his article. Similar suggestions are also put forward by Götsche (cf. 61), Visconti (cf. ‘How Can You’ 86), as well as by Kanev and Orr (cf. 87-89).

Level 1: On L1, the main question(s) that might arise from the primary text are answered in a concise manner. After having read L1, readers should have the feeling that their most pressing questions have been answered. If they desire more detailed information, they can proceed to L2 and L3.

Level 2: provides further information based on the information presented on L1.

Level 3: offers even more advanced information based on information presented on L1 and L2.

In accordance with their interests and requirements, readers can, for example, skip the first level when they feel that their question concerning the text goes beyond what this level has to offer. Likewise, they can stop reading after level one when they feel that their curiosity has been sufficiently satisfied. The reading of level one and two puts users into the position to understand level three, regardless of their prior knowledge of the subject. Again, the levels are less a matter of expertise than of a reader's amount of interest in a topic.

Categories

Readers should not only be able to choose *how much* information they wish to receive but also *what kind* of information they are provided with. As has been shown in chapter three, several digital editions already use categories or tags in order to describe the content of an annotation, though often in a very loose, unsystematic, or inconsistent way. The categories used by TEASys, on the other hand, are narrowly defined enough to be useful and broadly defined enough to cover overlapping fields of knowledge that – if defined separately – would potentially be applied inconsistently.³¹ In TEASys, each level is subdivided into one or several categories. There are eight different categories:

Language: This category explains the meaning of words and phrases that are archaic, whose meaning or connotations have changed over time, or that use slang, jargon, or dialect. This category also draws attention to ambiguity. Furthermore, it provides the meaning of words that may not be known to advanced learners of the language.

The 'language' category is often closely connected with the 'form' and 'interpretation' categories. For example, the 'language' part explains what a neologism means, while the 'form' part analyses how this neologism is created. Likewise, the L1

³¹ An example of such overlapping fields that might lead to inconsistencies are "Gender" and "Love and Marriage" as used by *BookDoors* (see chapter 3.3).

‘language’ part of an annotation names all meanings of a word that are relevant in the context of the annotated sentence, while the L2 ‘interpretation’ part explains which reading is the most likely and how each of these word meanings influences the meaning of the sentence or passage (cf. Bauer and Zirker, “Explanatory Annotation” 228).

One might object that choosing which meanings of a word are relevant in a certain context already involves a great deal of interpretation. Even though a certain degree of interpretation can never be avoided, the collaborative nature of the Tübingen *Annotating Literature* project minimises this risk (for more on collaboration in this project see 4.4). While the annotation is being developed, the group carefully reflects on which meanings to include. After the note has been uploaded onto the [project website](#), users can make suggestions which meanings might be omitted or added. Thus, the decision is neither final nor does it rely on a single ‘omnipotent’ annotator. Likewise, the choice which words might or might not be known to advanced learners of the language is discussed in the annotating groups which usually consist of a mix of native speakers and proficient language learners. Users of the website will also be able to mark words or phrases they do not understand and think worthy of annotation. The decision to use advanced learners as a standard was taken in order to avoid annotations that explain such basic terms as “house”. At least as far as language is concerned, one *has* to assume a shared level of knowledge; otherwise, the explanatory notes would be cluttered with information that most users will perceive as irrelevant and underwhelming.

Form: The ‘form’ category draws attention to the literariness of a text by elucidating poetic devices, meter and rhyme, narrative structure, unusual use of capitalisation or punctuation, and iconicity. Furthermore, this category tells readers to which extent a text adheres to, or breaks with, formal literary conventions (e.g. that Shakespeare’s sonnet 99 has fifteen instead of fourteen lines). *Non-formal* literary conventions (e.g. the use of a certain archetype) are discussed in ‘context’.³² The ‘form’ category does *not* discuss possible reasons why a formal feature is used, or how it might affect the meaning of the text, neither does it make suggestions as to why a text follows genre conventions or not. Such information is included in the ‘interpretation’ category. Irony

³² However, the differentiation between formal and non-formal conventions is not always entirely clear as form and content are, of course, often inextricably linked. One advantage of TEASys is that, once a solution for such a problem has been found, it can immediately be included in the living style guide (see below: “Continuous Reflection and Revision”).

is a special case, as it may belong to both ‘form’ and ‘interpretation’. The approach taken by TEASys is to mention the phrasing/word choice that might trigger irony in “form” and further analyse the (possible) irony in “interpretation”.

Intratextuality draws attention to recurring features within the same primary text (e.g. themes, motifs, repetitions, foreshadowing). It does not explain what effect this recurring feature has on the reading experience or on the meaning of the text. Such discussions belong to the ‘interpretation’ category.

Intertextuality is notoriously hard to define and the Tübingen project has opted for a very narrow approach. In TEASys, only direct, identifiable references to one literary or non-literary source text (including other works of art like paintings and music) are elucidated in the ‘intertext’ category. ‘Direct and identifiable’ here means that the intertextual reference has to consist of a quote or allusion that unambiguously points to one part of one other text, or that a whole text is unequivocally referred to. For example, a quote from the Bible would be annotated in the ‘intertext’ category, while a reference to a biblical topic would be included in ‘context’. This notion also excludes what Pfister terms *Systemreferenz* (cf. Pfister 52–57): A direct, identifiable reference to a passage in a picaresque novel would be included in the ‘intertext’ category, whereas a reference to the picaresque tradition (i.e. an example of a *Systemreferenz*) would be discussed in the ‘context’ category. Furthermore, it is only in the ‘interpretation’ category that annotators would discuss the function of the reference, how it affects the meaning of the annotated text, and how the two texts can be set in relation to each other.

Concerning the automatic filter function that will be implemented on the project website, one problem arises from this narrow definition: When users filter out everything but ‘intertext’, they only find those cases that TEASys counts as intertextuality. Thus, users who have a broader definition (e.g. one that includes *Systemreferenzen* and vague allusions that can point to a multitude of source texts) would only find a fraction of the cases that – according to their criteria – count as intertextuality. In order to find more instances of this phenomenon, they also have to include ‘context’ in their search. This category, among other things, elucidates literary contexts (e.g. topoi, archetypes, conventions) and allusions to non-literary writings that do not directly point readers to one specific source text (e.g. a reference to a topic that is

discussed in a number of pamphlets). In order to avoid misunderstandings, the guidelines on how to use the filter should explicitly draw users' attention to this issue.

Context: This category elucidates different fields of background knowledge that inform the primary text. These fields include but are not restricted to culture, history, biography, politics, religion, philosophy, science, and literature. When an allusion to, for example, a historical personage is so vague that it cannot be unequivocally identified, it would be annotated in the 'interpretation' and/or 'question' category.

Interpretation: This category discusses the findings of all other categories and draws conclusions from them concerning the meaning of a passage or text. When in doubt whether a piece of information is still factual or already interpretative, annotators are on the safe side when they classify it as interpretation. As this category is based on the information provided in other categories, it rarely appears on L1. 'Interpretation' also discusses different scholarly approaches to the primary text.³³ TEASys strives to always include different ways of interpreting a passage rather than privileging one reading over others. What does not belong in this category are speculations that can in no way be related to the primary text.

The inclusion of interpretation in an annotation has often been criticised.³⁴ Other theorists, however, argue in favour of interpretative notes as long as they include different opinions and as long as the tension between different interpretative strands is explicitly shown (cf. Frühwald, "Zusammenfassung" 208). For instance, compiling annotations that appeared in previous editions of the text can be one "attempt to approach objectivity in the documentation of differing views" (Wells 112). Thus, rather than telling readers how they *have* to interpret a passage or text, annotations should offer them different possibilities for how they *could* read them (cf. Göpfert 101; cf. Sauermann and Zwerschina 17). Austermühl even argues that the omission rather than the inclusion of interpretative information delimits readers' interpretation of a text because interpretative annotations make readers aware of possible dimensions of meaning that are only implicit in the text and would hence be overlooked by most

³³ That annotations should also provide an overview over secondary literature has been suggested by, for example, Göttsche (cf. 54); Kanzog (cf. *Prolegomena* 219); Koopmann (cf. 54); Knoop (cf. 211); and Schmidt (cf. 82).

³⁴ See e.g. Koch (cf. 134-135); Fuhrmann (cf. 43-44); Roloff (cf. "Probleme" 46); Senger (cf. 71); Beehler (cf. n.pag.); Mundt, Roloff, and Seelbach (cf. 163); Hagen (cf. "Von den Erläuterungen" 222); Martens (cf. "Kommentar" 46); Battestin (cf. 13); and Goulden (cf. 143; 158).

readers (cf. 60-61). Of course, the providing of different interpretative approaches does still not guarantee that no reader's understanding of the text is delimited. However, TEASys tries to minimise this risk by explicitly marking interpretation as interpretation and by allowing readers who reject interpretative annotations to filter them out. On the "About" page of the TEASys website, readers could also explicitly be told that they do not have to follow any of the interpretations suggested in the annotations and that they can also propose their own readings for inclusion in a note.

Textual variants: In this category, it is discussed how the versions of a text differ from each other. For reasons of feasibility and user-friendliness, only relevant textual variants are included, i.e. those that might have a considerable effect on the meaning of the text. The discussion of at least some variants in explanatory notes has been endorsed by several theorists.³⁵ The possible reasons *why* a part of the text was changed and how this change affects the meaning of the text are elucidated in the 'interpretation' category.

Questions: Annotators should not pretend that there is a clear, simple answer for a problem in the text when there is none (cf. Jansohn 218-20; Jungmayr and Mundt 160; Woesler 22). Hence, this category documents the questions that arise while a contributor conducts research for a certain annotation (e.g. when an allusion cannot be identified or when sources contradict each other). Its aims are two-fold: For one, instead of hiding the difficulties that arise from the text, this category makes transparent to readers which questions have not been solved yet.³⁶ Furthermore, it is an explicit call for contribution, i.e. users are invited to help solving the problems that other annotators were unable to address. In order to save time, the unfruitful research that has already been conducted on a topic is also recorded in this category, so future contributors do not have to look at the same secondary sources again.

³⁵See, e.g., Edwards (cf. 99); Francke (cf. 85); Frühwald (cf. "Formen" 16); Kraft (cf. 89); Mundt, Roloff, and Seelbach (cf. 163); Schmidt (cf. 89); and Roloff (cf. "Probleme" 45-46).

³⁶The inclusion of unsolved questions in an annotation has been advised by several theorists. See Hettche (cf. 144); Mathijssen ("Commentary" 194; "Die 'sieben Todsünden'" 260); Mundt, Roloff and Seelbach (cf. 163); and Roloff (cf. "Fragen" 138). For the annotating project *Infinite Ulysses*, Visconti also plans to create a "list of unanswered questions on the site that you can also pull into your RSS feed" (Visconti, 'How Can You' 24).

Categories: General Guidelines

There can be no mixed categories. For example, one cannot write a part of an annotation that both analyses the form of a passage *and* interprets this form. Rather, the annotation would have to include both a “form” and an “interpretation” part, i.e. two separate texts. In this case, ‘form’ would appear on L1 and ‘interpretation’ on L2 because the latter builds on the information provided by the former. Categories do not require an element of the same category on a previous level. For instance, an annotation can have a L2 ‘intratext’ section without there being an L1 ‘intratext’ part. In some cases, an annotation for a phrase has to be based on several separate annotations for the words in this phrase. In this case, it is possible to create an annotation that is not anchored in the primary text but in each of the annotations it builds on (for this issue also see the discussion of the mind map in [chapter 2.3](#)).

Filtering

By default, users of the *Annotating Literature* website will be able to see all available levels and categories for an annotation. This means that they also have the ability to filter manually rather than automatically. When readers click on a part of the primary text for which different overlapping annotations are offered, a pop-up window appears in which they can choose the annotation that best addresses their question:

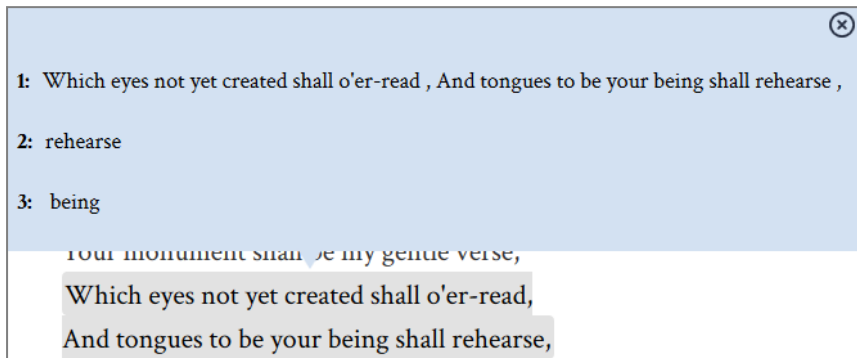


Fig. 3. TEASys: Pop-up window showing overlapping annotations

A further pop-up window tells readers which kinds of levels and categories are offered for each annotation, and they can choose which ones to access and which ones to skip:

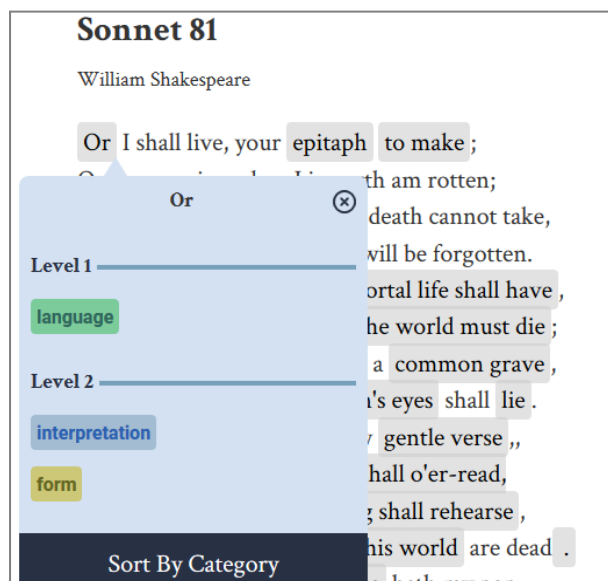


Fig. 4. TEASys: Primary text and pop-up window

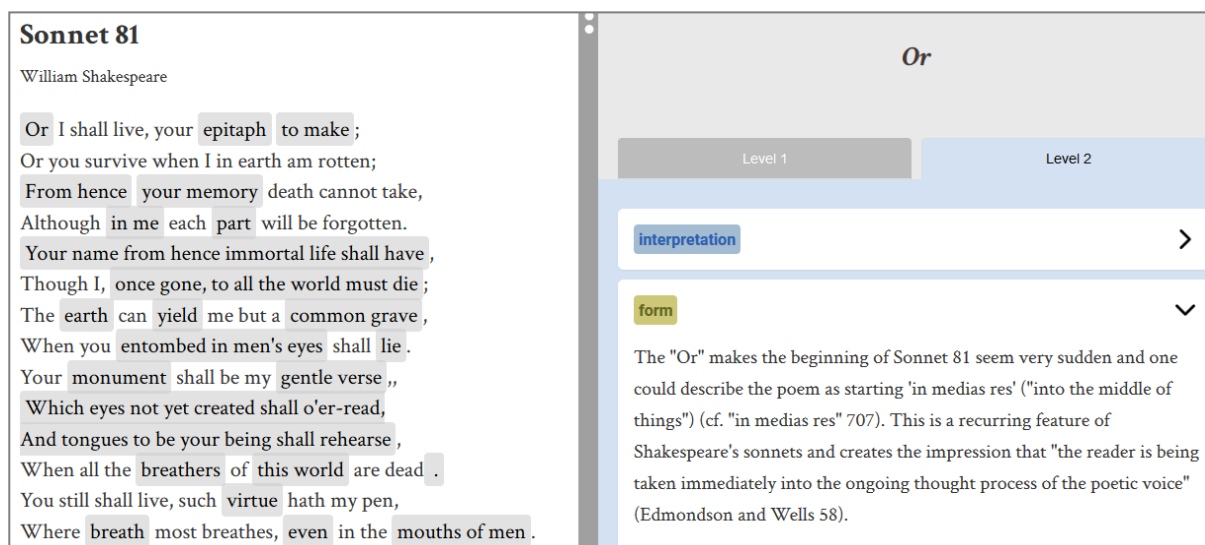


Fig. 5. TEASys website: 'interpretation' is hidden; 'form' is shown

For screenshots of a complete annotation using TEASys see [Appendix 2](#). For more examples see the prototype of our [project website](#).

Users who already have a very clear research purpose in mind will soon also be able to use an automatic filter. This way, they can decide which of the available parts of an annotation are shown in the pop-up window in the first place. A prototype for this filter could look as follows:

Filters				
select all <input type="checkbox"/>		deselect all <input type="checkbox"/>		Guidelines
Category	Definition	Level		
Language	Explains the meaning of words and phrases. More	L 1 <input type="checkbox"/>	L 2 <input type="checkbox"/>	L 3 <input checked="" type="checkbox"/>
Form	Poetic devices, literary conventions, meter, rhyme, etc. More	L 1 <input checked="" type="checkbox"/>	L 2 <input checked="" type="checkbox"/>	L 3 <input type="checkbox"/>
Intratextuality	Recurring features and topics within the same text. More	L 1 <input checked="" type="checkbox"/>	L 2 <input checked="" type="checkbox"/>	L 3 <input type="checkbox"/>
Intertextuality	Direct, identifiable references to other texts. Very narrow def.! More	L 1 <input type="checkbox"/>	L 2 <input checked="" type="checkbox"/>	L 3 <input checked="" type="checkbox"/>
Context	Historical, religious, scientific philosophical, literary, etc. More	L 1 <input checked="" type="checkbox"/>	L 2 <input checked="" type="checkbox"/>	L 3 <input checked="" type="checkbox"/>
Interpretation	Conclusions from other categories and secondary literature. More	L 1 <input checked="" type="checkbox"/>	L 2 <input checked="" type="checkbox"/>	L 3 <input checked="" type="checkbox"/>
Variants	Differences between the different versions of the text. More	L 1 <input type="checkbox"/>	L 2 <input type="checkbox"/>	L 3 <input type="checkbox"/>
Questions	Open questions, unsolved problems. More	L 1 <input type="checkbox"/>	L 2 <input checked="" type="checkbox"/>	L 3 <input checked="" type="checkbox"/>

Fig. 6. Filter matrix for TEASys

4.3 Guiding Principles

Relevance

Every part of an annotation should be relevant for understanding, interpreting, and enjoying the primary text. Of course, not all parts can be relevant for *all* readers, but there must never be a piece of information that, for example, digresses so far from the theme of the annotated passage that not a single reader can perceive it as helpful. For every single sentence, for every single secondary source, an annotator should be able to justify why it was included in the note. This also means that each item is elucidated in context: The information provided in a note always has to stand in direct relationship to the primary text, e.g. it does not explain what a word could theoretically mean but only what it can mean in a specific sentence or passage. Likewise, annotations are not meant to be general essays on a topic. When, for example, the primary text contains a reference to a historical personage, the annotation only names those facts concerning this personage that are relevant in the context of the annotated work. Anachronistic

notes like ‘the author did not know that person xyz would become Prime Minister fifty years after this novel was published’ are avoided by all means.

Hyperlinking

As has been shown in chapter three, most digital annotation projects do not contain any links between annotations. TEASys follows a different approach and strives to make comprehensible how the information provided in different annotations, or parts of annotations, is connected. For this aim, all explanatory notes are saved in a database and can be hyperlinked with each other (cf. Bauer and Zirker, “Explanatory Annotation” 229). Thereby, it can be shown how one field of knowledge is related to another or – following hermeneutic principles – how the understanding of a whole primary text relies on the elucidation of its specific parts and vice versa. Users who feel distracted by visible hyperlinks will, however, be able to hide them.

Continuous Reflection and Revision

The principles of TEASys, for example the exact definitions of each category, are not cast in stone. Neither is the present content of the annotations. The current rules of TEASys are recorded in a [living style guide](#), which is used by the annotating groups in Tübingen and will also be made available to volunteer contributors on the website. These guidelines are revised whenever the need arises, for example when annotators notice that the style guide does not yet address a certain issue (e.g. when it is unclear in which category a piece of information should be included) or when an existing rule cannot be satisfyingly put into practice. In such cases, this problem is first addressed in the individual annotating group, the mentor of which then meets with the mentors of other groups and with the supervisors of the project. In these meetings, rules are added to TEASys or improved. From this point onwards, these are used for all future annotations and existing annotations are reviewed accordingly. Thereby, theory informs practice, practice again informs theory, and a best-practice model is gradually developed. Since the annotations are published digitally, they can be quickly updated whenever new guidelines become operative, an annotator finds new secondary sources on a topic, or the need for further elucidation is perceived. The problems in terms of citeability and reliability that arise from such revisions are addressed in [chapter 6.3](#).

4.4 Collaboration

Apart from setting up such a best-practice model and from providing readers with academically reliable annotations, the Tübingen project is also currently establishing an “international network of collaboration” (Bauer and Zirker, “Whipping Boys” par. 57). This collaboration takes place on different levels. Students in Tübingen (and, since recently, also in Berlin) can join an annotating peer-group, in which BA, MA, and PhD students meet on a weekly basis in order to elucidate one or, in the case of poetry, several texts. After the group has reflected on which items require annotation, each participant prepares several explanatory notes which are discussed and revised during the meetings. This means that, rather than by a single expert, a text is annotated by its readers, who frequently are in a better position to reflect on the exact problems for understanding that arise from the text. Since each explanatory note is thoroughly discussed with other participants, open questions and incomprehensible or vague phrasings are detected before publication.³⁷ When an annotation has undergone multiple stages of revision, it is handed in to the supervisors of the project, who revise it again in order to guarantee its academic quality. Apart from joining one of the peer-groups, students can also participate in seminars taught by the supervisors. The method for writing and revising annotations in these seminars is the same as in the student groups. Occasionally, such seminars also lead to the establishing of new groups once the semester is over.

The student groups and seminars show that annotating can also be used as a didactic tool that helps students improve their academic writing, research and close reading skills and acquire profound knowledge on a specific topic. In those groups, students act as editors of each others’ annotations and review them with respect to content, style, and grammar. For most ‘ordinary’ literary studies term papers, it is sufficient to conduct research only in the MLA database, on JSTOR, or through Google Scholar – but not so for annotations. For these, one often has to find information on rather obscure topics, for example on the profession and decline of the ticket porter. Students of literature thus also learn how to resort to scholarly resources that do not belong to their own field but to history, theology, or art, for instance. Furthermore, annotating forces students to concentrate on those parts of a text that they do not

³⁷ First findings indicate that this method has been successful: In the user survey discussed in the next chapter, participants rated the TEASys annotations as easier to understand than annotations provided in the Arden edition (see chapter 5.4.5).

understand; they are “simply not allowed to pass over difficult passages lightly and then move on to the next scene” (Stroud 217). Through close reading, they identify what exactly it is that makes the text hard to comprehend, and they develop strategies for addressing these problems with the help of both the primary text itself and secondary sources. Annotating also means that students have to focus on very specific topics rather than broad ones, thereby expanding and deepening the knowledge they already possess. For example, if they are readers of Dickens, it is very likely that they have at least an idea about poverty and philanthropy in the Victorian age, but it is improbable that they have ever heard about the concept of a ‘voting charity’. In an ‘ordinary’ seminar, one can rarely focus on such small, seemingly insignificant fields of knowledge, but they are at the very heart of annotating and help students broaden their cultural, historical, and literary knowledge.

The kind of collaboration that takes place in student groups and seminars relies on personal contact and face-to-face discussions which make it comparatively easy to make sure that students’ annotations adhere to the TEASys guidelines. On a less personal level, external contributors are also able to add and revise explanatory notes on the [project website](#). The TEASys guidelines are essential for this kind of collaboration, as they provide external contributors with transparent standards that their work has to meet. As of yet, it is not entirely clear how these standards will be enforced in the future. Currently, annotations have to be accepted or revised by administrators before they become visible to all users. Administrators are also able to reject contributions altogether or to revise annotations that have already been accepted. It is possible, however, that users may be discouraged from contributing to the project when administrators hold such a powerful position and can reject or alter their notes without explaining why. The problem of how to ensure the academic quality of annotations without scaring away contributors will be discussed in more detail in [chapter 6.2](#).

In terms of collaboration on theoretical issues, TEASys is presented at national and international conferences. The feedback gathered there helps to further improve the guidelines as well as the layout of the website. As of now, interdisciplinary collaboration takes place with empirical educational sciences, which investigate the effect of reading and producing annotations on text comprehension, and with media informatics, whose expertise was used to design the TEASys website.

5. Pilot Study: Readers' Attitudes Towards Digital Annotations

Users' acceptance of digital annotations is a crucial issue for both editors/annotators and funding institutions.³⁸ There is no use in developing an annotated online edition – a process that consumes a great amount of both of time and money – when no one wants to utilise it. For this reason, I investigated users' attitudes towards electronic reading in general, towards annotations in general, towards digital annotations in comparison to printed ones, and asked them which features they would find useful in a digital annotated edition. Furthermore, I collected feedback on our newly designed TEASys website. This non-representative pilot study (n=14) marks only a first step towards a thorough exploration of readers' expectations for, and use of, digital annotations. Further surveys are planned. The results indicate that participants find annotations helpful and have a negative attitude towards reading literary texts on electronic devices but favour digital annotations over printed ones. Furthermore, they were divided over the features (e.g. multimedia elements) they desire in a digital annotated edition; thus, a stronger focus of future user studies could lie on this field.

5.1 Similar Surveys

Surveys on readers' preferences for printed or digital reading, both of literary and scholarly texts, are too numerous to be discussed here in detail.³⁹ Hence, the focus will lie on studies of users' attitudes towards (digital) annotations. The existing research in this field strongly suggests that readers have a positive perception of explanatory notes.

In the context of surveys concerned with digital reading in general, the access to further information on a text is often mentioned among the features that readers most appreciate about this type of reading. Baron notes that readers' use of digital texts has led them to expect that “reading should include instant access to other resources” (198). When Bélisle asked readers about their experiences with e-books and their suggestions how these could be improved, they answered that they appreciated being able to quickly look up words in dictionaries and wished also to find

³⁸ Publishing companies are not mentioned here because they almost never figure in the publication of digital editions. As Rosselli Del Turco notes, “web-based editions curated by publishers and made available for a subscription fee [are] [...] not particularly popular in the Humanities, at least not for digital editions” (227n30).

³⁹ To name only a few, these surveys include Baron; Baron, Calixte, and Havewala; Kachaluba, Brady, and Critten; Kelly, “Tablet Computers”; Shrimplin et al.; Revelle et al.; and Steding.

d'information sur l'auteur, sur l'œuvre et sur sa création [...]. [P]lusieurs lecteurs ont suggéré d'inclure avec une œuvre des documents multimédias accessibles par hyperliens [...], des commentaires de critiques littéraires, des informations sur le contexte social, culturel et littéraire de la production de l'œuvre. (Bélisle 209)

Of the university students surveyed by Baron, Calixte, and Havewala, 13.6% said that what they liked best about electronic reading was that they could “search for words, find information, and/or use the internet”, one responding that ““you can look up something right away if you don't understand it”” (598). Even though annotations are not explicitly named in any of these surveys, they show that the instant access to a wealth of explanatory material is seen as one of the main advantages of digital reading.

Most surveys *directly* concerned with digital annotations are restricted to readers' use and appreciation of glosses, i.e. of “brief definition[s] or synonym[s], either in L1 or L2, which [are] provided with the text” (Nation 174). Studies on students reading in a foreign language have shown that they highly appreciate annotations that explain the meaning of unknown words to them (cf. Chen and Yen 420-21; Jacobs, Dufon and Hong 26; Ko 132; Lenders 469). Similarly, Sakar and Erçetin found that, even though hypermedia annotations negatively affected L2 learners' reading comprehension, the students had “positive attitudes towards annotations [i.e. glosses]” (Sakar and Erçetin 28).⁴⁰

The studies by Erçetin, by Lomicka, and by Davis and Lyman-Hager also included other types of annotations. Erçetin found that participants who were not interested in the topic of the primary text used more content-related annotations when they had little prior knowledge, while participants who were interested in the topic turned to these annotations more often when they had much prior knowledge (cf. 228). This shows that the wish to understand the text better is only *one* motive for the use of annotations, the desire to gain more information on a text one already understands another. A similar result was obtained in my own survey, see 5.4.2. The studies by Lomicka as well as by Davis and Lyman-Hager suggest that readers prefer annotations that explain unknown words over other kinds of annotations (cf. Lomicka 47; Davis and Lyman-Hager 61). This finding was replicated in the present survey as well (see 5.4.3).

A study by Steding found that academics perceive annotations as an essential part of a scholarly edition. 82,4% of the participants even considered them to be the

⁴⁰ For other studies that tested the effect of (hypermedia) annotations on L2 learners' text comprehension and vocabulary acquisition see AbuSeileek as well as Lee and Lee.

most important feature of such an edition (cf. Steding 245). Participants also answered that "[c]ommentary and annotations [...] are the second most important reason for using [scholarly] editions" (right after the "need for reliable textual data") (243). Concerning the criteria for choosing a certain edition, the first place was divided between the "most useful commentary" and the "latest edition of this text" (244).

The present survey adds to the research in this field by investigating whether readers prefer printed or digital annotations. Furthermore, it examines why exactly readers resort to explanatory notes, which kinds of annotations (in terms of content) they find most helpful, and which additional features could make the user experience of digital annotated editions even more comfortable.

5.2 Methodology

Participants

Fourteen students of the University of Tübingen participated in this pilot study. Twelve of them were humanities students, two came from other faculties. Except for one participant, all students were native speakers of German. Four of the students had already heard about the *Annotating Literature* project in Tübingen, but none of them was part of an annotating peer group and none of them had attended a seminar on annotating. 42,9% of the participants studied English and had already taken part in a seminar/lecture course on Shakespeare, whose sonnet 81 was used in the survey. Half of the students read Shakespeare about once a year, 28,6% of them about once a month, the rest never.

The Survey

The questionnaire was created using *SoSci Survey*; all parts of it were in English. Likert-scales were used for most of the survey, but there were also several blank input fields. The study was conducted in the eScience Centre of the University of Tübingen; a pure online survey distributed via email was not possible because participants were also given printed material. The main part of the questionnaire consisted of eight sections:

(1) Reading preferences: Students were asked whether they preferred to read printed or digital texts for different genres (e.g. novels) and for different reading purposes (e.g. close reading).

(2) Annotations in general: Participants were explained how the term 'annotation' would be used in the survey. They were asked how helpful they found annotations in

general, why they used them, and which kinds of information they found most helpful in an annotation.

(3) Prior experience with digital annotations: Students were asked if they had ever read an annotated digital edition. If yes, they were asked to rate these annotations in comparison to printed ones, using a number of variables (e.g. trustworthiness or user-friendliness). If not, they could give their reason(s) for not having read such an edition.

(4) Reading task: Participants then read Shakespeare's sonnet 81, which was displayed on the screen. On the next page, they had to note down one word or line that, in their opinion, required annotation the most.

(5) Print annotations: After this, they read the annotation for this item as offered by the Shakespeare Arden edition (*Shakespeare's Sonnets*, ed. Katherine Duncan-Jones).⁴¹ For this, they had access to a paper copy of the respective pages in the Arden edition, but they were not told which edition they were given. Participants were provided with another sheet of paper on which they could take notes concerning the following five questions: Is the annotation helpful? Is it reliable/academic? Is it easy to understand? Is it too long/too short? Does it delimit interpretation?

(6) Digital annotations: On the next page, participants were provided with a link to the website of the Tübingen *Annotating Literature* project, which also provides annotations for sonnet 81. In order to reduce bias, participants were told that the link would randomly lead them to one of six websites that are concerned with Shakespeare's sonnets. Students were asked to read the annotation for the same item they had looked up in the printed edition and to take notes for the same five questions again. For this, they had been given another sheet of paper at the beginning of the survey.

(7) Evaluation: printed vs. digital annotations. After having returned from the website to the survey, students answered questions regarding their experience with both the printed and the digital annotations. The same questions were asked for both types of annotations and participants were allowed to use the notes they had taken. In a blank field, users could also make remarks on annotations they had seen.

(8) Evaluation of the website: At last, participants were asked to provide feedback on the website. In order to reduce bias, they were told that the website had been created at the University of Bochum, not of Tübingen. In a blank field, they could write which

⁴¹ If the item they had marked as requiring annotation the most was not explained in the Arden edition, participants were allowed to choose another item.

features they would like to be implemented in the future and they could suggest how the annotations on the website might be further improved.

For the full questionnaire see [Appendix 3](#).

5.3 Limitations

Due to the number of participants (n=14), this pilot study is not representative. The sample also included only one of the groups that might visit our website, namely students with not much prior knowledge of, or enthusiasm for, the primary text.⁴² Hence, a similar survey should also be conducted with scholarly experts and (non-academic) enthusiasts in order to see whether their attitudes towards digital annotations are similar to those of the students and whether the features they desire in a digital annotated edition are the same.

Participants did not read all annotations in both editions, only those for the item they marked as requiring annotation the most. Thus, their evaluation of the explanatory notes depended on which notes exactly they read, i.e. on their respective content and features (e.g. length or the inclusion of references). Hence, the students' assessment of the two editions should not be entirely generalised. However, the small number of participants would theoretically allow one to look at the annotations each student chose to read⁴³ and to conjecture to which extent the individual features of these annotations might have influenced their evaluation. For example, the print edition would maybe have been rated as more reliable if more students had read a printed note that included a reference to secondary literature.

Furthermore, the survey only tested whether students *perceived* the annotations to be helpful for understanding the primary text; their actual understanding was not tested.

⁴² I infer this from the fact that only some of the participants had taken a seminar on Shakespeare before and that none of them read his works more often than once in a month.

⁴³ Five students marked "epitaph" as requiring annotation the most. The second place (two votes each) is shared by "your epitaph to make" and "where breath most breathes, even in the mouths of men". The following words/lines were marked by one student each: "hence", "When you entombed in men's eyes shall lie", "And tongues to be your being shall rehearse", "o'er-read", and "Which eyes not yet created shall o'er-read".

5.4 Results

5.4.1 Print vs. Digital: General Reading Preferences

Among other things, the survey strove to investigate whether there is a correlation between the participants' preferred medium for reading literary texts and their preferred medium for reading annotations. To this aim, students were asked which medium they preferred for different kinds of literary texts and for different reading purposes.

Participants favoured print irrespective of the **genre or length** of a literary text (see Tab. 1). However, the inclination towards print was most marked for longer texts (i.e. long poems, novels, and plays). A preference for printed texts was also found in other surveys (cf. Baron 195; Merga 237). That this preference is especially strong in the case of long works has been noted as well (cf. Baron, Calixte, and Havewala 592).

Genre Medium	Short stories	Short poems	Long poems	Novels	Plays
Print	57,1 %	57,1 %	71,4 %	85,7 %	78,6 %
Either medium	28,6 %	35,7 %	14,3 %	-	7,1 %
Electronic	7,1 %	7,1 %	-	7,1 %	-
No answer ⁴⁴	7,1 %	-	14,3 %	7,1 %	14,3 %

Tab. 1: Which kinds of texts do you prefer to read in print, which on electronic devices?

When asked which medium they preferred for different **reading purposes** and practices, participants also preferred print – with one predictable exception (see Tab. 2). While they favoured printed texts when reading for seminars/term papers, for leisure, and for close analyses, students liked to skim texts in either medium. In the case of academic reading, the preference for print was even stronger than in the case of reading for leisure. Again, these findings are substantiated by existing research: The screens of electronic devices seem to encourage skimming but prevent immersive or concentrated reading, which is a prerequisite for thorough analyses (cf. Mangen 251; Baron 195-96; 198). Participants of other surveys also predominantly preferred print for both academic purposes and leisure, with the preference being even more marked in the former case (cf. Kachaluba, Brady, and Critten 103; Baron, Calixte, and Havewala 595).⁴⁵

⁴⁴ Participants were told to skip the questions for the kinds of texts they never read.

⁴⁵ However, see Shrimplin et al., who obtained the opposite result, namely that it is especially for leisure that print is favoured (cf. 185-86).

Purpose Medium	Seminars/ term papers	Leisure	Skimming	Close reading
Print	85,7 %	78,6 %	28,6 %	92,9 %
Either medium	7,1 %	7,1 %	42,9 %	-
Electronic	-	7,1 %	21,4 %	-
No answer	7,1 %	7,1 %	7,1 %	7,1 %

Tab. 2: For which reading purposes do you prefer print; for which purposes do you prefer electronic devices?

5.4.2 Attitude Towards Annotations in General

The majority of participants **highly appreciated** annotations. 78, 6% of them (strongly) agreed with the statement “*I find annotations helpful*”. None of them (strongly) disagreed. Half of them even (strongly) agreed with the suggestion that they would “*rather buy a slightly more expensive annotated edition than a cheaper unannotated edition.*” Hence, this survey could confirm the results cited in 5.1 that show readers’ high esteem of annotations.

However, participants’ **experience** with explanatory notes was not altogether positive. 35,7% of them (strongly) agreed with the statement that annotations “*distract me from the text; I find them annoying*”, and 28,5% (strongly) agreed that annotations “*often do not answer the questions I have when reading a text*”. Thus, while participants perceived annotations as potentially very helpful, they also noted shortcomings in practice. Both disadvantages mentioned could be solved through digital explanatory notes: readers who do not want to get distracted could turn off the indications that mark the presence of an annotation, and the lack of space limitations ensures that annotations can satisfyingly address readers’ questions.

Participants’ **motives** for using annotations are ranked as follows:

- (1) Fear of missing important information: 78,5 % of the them (strongly) agreed that they read annotations for this reason; the rest was neutral.
- (2) Topic interest: 71,5 % of the students (strongly) agreed with the remark “*I decide to read annotations whenever I get the impression that their content might interest me, even if I feel that I would understand the text without them.*”
- (3) Fear of misunderstanding/not understanding the primary text: While 42,9% of the participants (strongly) agreed that this was one of the reasons why they read explanatory notes, 28,5% of them (strongly) disagreed.

(4) Obligation: Some critics of annotations argue that readers only use them because they feel obliged to, not because they are interested in them or because they feel that they need them (cf. Beehler n.pag.). However, 42,8% of the participants (strongly) disagreed with this suggestion. Nevertheless, 35,7% (strongly) agreed; for this reason, readers should be allowed to turn off indications of annotations in a digital edition and only see those notes they actively ask for.

These results indicate that readers do not primarily turn to annotations because they have trouble understanding the text but rather because they desire further enriching information. In other words, readers of a certain level often understand the gist of a text, but they use annotations because they want to comprehend it in all of its nuances and subtle allusions.

5.4.3 The Helpfulness of Different Kinds of Annotations

TEASys uses eight categories in order to describe the different fields of knowledge that an annotation can address (for more information see [chapter 4.2](#)). In the survey, participants were provided with a brief description of seven of them and were asked to rate their helpfulness.⁴⁶ The students assessed ‘language’ as the most helpful category by far, while ‘variants’ were seen as not very helpful. A possible reason for this rejection of ‘variants’ is that most likely none of the participants had experience with text editing. It would thus be interesting to investigate how scholars rate the helpfulness of this category. ‘Intertext’ and ‘context’ also received high ratings, though considerably less than ‘language’. These two categories that point to something *outside* the primary text were seen as more helpful than ‘form’ and ‘intratext’, both of which explain a feature in the primary text. A reason for this preference might be that a rhetoric figure or a motif can be spotted through close reading alone, whereas readers often need further resources in order to identify the referent of an allusion. Among theorists it is highly contested whether annotations should contain interpretation⁴⁷.

⁴⁶ The ‘questions’ category was not included in the survey, as this category is primarily (though not exclusively) aimed at annotators rather than readers and as it was expected that participants could better identify with consumers than with producers of annotations. In future surveys with possible volunteer annotators, however, this category will also be included.

⁴⁷ Those who are **against** interpretation include Koch (cf. 134-135); Fuhrmann (cf. 43-44); Roloff (cf. “Probleme” 46); Senger (cf. 71); Beehler (cf. n.pag.); Mundt, Roloff, and Seelbach (cf. 163); Hagen (cf. “Von den Erläuterungen” 222); Martens (cf. “Kommentar” 46); Battestin (cf. 13); and Goulden (cf. 143; 158). Those who are **in favour** of interpretation include Stüben (cf. 102; 106); Frühwald (cf. “Zusammenfassung” 208); Göpfert (cf. 101); Woessler (cf. 23); Sauermann and Zwerschina (cf. 17); Austermühl (cf. 60-61); and Knoop (cf. 211).

Likewise, participants of the survey were divided over the usefulness of the ‘interpretation’ category even though more students had a positive attitude towards it.

Rated best (very helpful or helpful)	Rated worst (unhelpful or very unhelpful)
Language (92,9 %)	Variants (35,7 %)
Intertext (71,5 %)	Interpretation (21,4 %)
Context (64,3 %)	Form (21,4 %)
Interpretation (57,2%)	Context (14,3 %)
Form (50 %)	Language, Intertext, Intratext (7,1 %)
Intratext (42,8 %)	
Variants (35,7 %)	

Tab. 3: Perceived usefulness of the different categories used in TEASys

A preference for ‘language’ annotations was also shown in other surveys: Davis and Lyman-Hager provided participants not only with glosses but also with information about pronunciation, grammar, relations among characters, and cultural references (cf. Davis and Lyman-Hager 60). Of all the annotations accessed by the participants, 85% were word explanations, while only 3,27% provided cultural context (other information was even less accessed) (cf. 61). In Lomicka’s study, a part of the participants was offered six different kinds of annotations⁴⁸, but they still preferred word explanations (cf. Lomicka 47).

The fact that some categories were rated as less helpful than others does, of course, not mean that we should stop providing readers with these kinds of information. Rather, it means that the definitions on our homepage do not only have to explain which field of knowledge each category addresses but also how this information can enhance understanding. Most importantly, the annotations in these categories themselves have to convince readers of their usefulness. The guidelines developed in the TEASys style guide, which put a strong focus on relevance and readerly needs, ensure that there will be no such thing as an unhelpful or useless part of an annotation.

5.4.4 Prior Experience with Digital Annotations

Half of the participants had already read digital annotations prior to the survey. They were asked to rate these notes in comparison to printed annotations. The other half were asked for the reason(s) why they had never used an annotated online edition.

⁴⁸ Those were: “definition in French; images, references, questions, pronunciation, and translation in English” (Lomicka 46). The participants (learners of French) differed in their preference for either French or English glosses (cf. 47).

In two respects, participants' assessment of the digital annotations they had used prior to the survey was positive. 42,9% of them rated these annotations as slightly more **user-friendly** than printed ones, another 42,9 % were neutral. In terms of **helpfulness**, 57,1 % of the students rated electronic annotations as slightly better than printed ones, the rest of them found no difference between the two mediums. Students were, however, divided over the questions of **trustworthiness** and **subjectivity**: 28,6% rated the digital annotations they had seen prior to the survey as “slightly less trustworthy” and as “(slightly) more subjective”, while the same percentage found them “slightly *more* trustworthy” and “slightly *less* subjective”(emphasis added). The rest of the participants found that digital notes were as trustworthy or subjective as printed ones. Given that many readers tend to distrust digital resources (cf. Ralle 151; Sahle 2: 207-08), it is surprising that at least some of the participants found the annotations in the new medium more trustworthy and less subjective. However, digital annotating projects should make greater efforts to produce academically reliable notes and – almost as important – to also communicate this fact to readers. Concerning **length**, 42,9% of the participants answered that the digital annotations they had read were (slightly) longer than printed ones, while the rest of them estimated that they were of about the same length.

Unfortunately, none of the participants remembered the exact digital annotated edition they had read; otherwise, it would have been possible to look at the features of each of these editions and draw conclusions as to why the participants, for example, rated its annotations less user-friendly or more subjective.

Those participants who answered that they had not read digital annotations prior to the survey were provided with six possible reasons for this, from which they could choose one or more. A blank field for other reasons was also offered, but none of the students used it. The **reasons for not having read a digital annotated edition before** are ranked as follows:

1. “I prefer the layout of print editions” (57,1 %).
 2. “I am not interested in reading literature online” and “I did not know that annotated online texts exist. I would like to read one” (both 42,9 %).
 3. “I am not interested in reading annotations online” and “Online annotations are less trustworthy than printed ones” (both 14,3%).
- None of the participants chose the sixth reason (“I did not know that annotated online texts exist. I am not interested in reading one”).

The ranking shows that most readers are indeed interested in digital annotations but dislike reading digital primary texts. This finding is substantiated by the results discussed in 5.4.1 and 5.4.5. The opposition to digital explanatory notes themselves was small among participants, but digital annotation projects still have to convince sceptics by providing notes that are evidently more user-friendly, more helpful and more reliable than those in the traditional medium.

5.4.5 Print Annotations vs. Digital Annotations

At the heart of the survey was the question whether participants rate digital annotations found on the TEASys website higher than those provided in the most recent Arden edition of Shakespeare's sonnets. The results are very encouraging: In all respects, students favoured the digital annotations developed in the Tübingen *Annotating Literature* project over the printed ones in the Arden edition.

92,8% of the participants (strongly) agreed that the digital annotation **helped them understand the text** better; for the print edition the number was only 57,1 % and 35,7% even answered that the printed annotations did not help them. 92,9% of the students found the digital annotations **academic and reliable**, while the percentage for the printed annotations was slightly lower (78,5 %). In terms of **length**, the right balance still has to be found: 57,1 % of the participants rated the printed annotations as too short, but 21,4 % found the digital annotations too long. Nevertheless, 57,2 % did *not* find the digital annotation too long. This is especially positive as the explanatory notes provided on the TEASys website are usually more extensive than those in most printed and several digital editions. Concerning their **comprehension of the annotation**, 78,6 % of the students strongly agreed that the digital one was easy to understand, while only 50% said the same about the printed note. 35,7% even (strongly) disagreed that the print annotation was easy to comprehend, while in the case of the digital one, those 21,4 % who did not strongly agree were neutral. Possible reasons for the better comprehensibility of the digital annotations are that they were written and reviewed by university students rather than scholarly experts and that the Arden edition has to use many abbreviations due to its space restrictions. When asked whether the annotations offered **different possibilities of interpreting the text**, neither edition received excellent ratings. However, the digital annotations were still favoured: 64,3 % (strongly) agreed with the statement as opposed to only 35,7% who (strongly) agreed when asked about for the print version. In order to improve in this respect, the TEASys

project should find a way to indicate the different possible interpretations better, for example through numbering. In a similar strain, 14,2% of the participants (strongly) agreed that both the printed and the digital annotation **delimit interpretation**. Despite the fact that these students were in the minority, the Tübingen project still has to minimise the risk of pushing users into the direction of a certain reading. A first step is the filter, which will soon be implemented in the website and which allows users to hide all parts of an annotation that are marked with ‘interpretation’ (for more information see [chapter 4.2](#)). 92,8 % of students found the digital annotation **helpful when reading for a seminar**; in the case of the printed annotation only 50% (strongly) agreed with this statement. Concerning **leisure**, the digital note was again favoured over the printed one (78,6% vs. 50%), but the difference between the two editions was not as marked as when academic reading was concerned. This result also shows that participants found the digital annotation better suited for scholarly purposes than for leisure reading.

The annotation I read...	Medium	strongly agree	agree	neutral	disagree	strongly disagree	don't know
helped me understand the text better	print	7,1 %	50 %	7,1 %	7,1 %	28,6 %	-
	digital	71,4 %	21,4 %	-	7,1 %	-	-
was academic and reliable	print	57,1 %	21,4 %	7,1 %	14,3 %	-	-
	digital	78,6 %	14,3 %	7,1 %	-	-	-
was too short	print	35,7 %	21,4 %	-	14,3 %	28,6 %	-
	digital	-	-	7,1 %	21,4 %	71,4 %	-
was too long	print	-	7,1 %	14,3 %	14,3 %	64,3 %	-
	digital	7,1 %	14,3 %	21,4 %	14,3 %	42,9 %	-
was easy to understand	print	50 %	-	14,3 %	7,1 %	28,6 %	-
	digital	78,6 %	-	21,4 %	-	-	-
offered different possibilities of interpreting the text	print	7,1 %	28,6 %	7,1 %	21,4 %	21,4 %	-
	digital	42,9 %	21,4 %	21,4 %	-	-	14,3 %
delimited interpretation	print	7,1 %	7,1 %	21,4 %	7,1 %	50	7,1 %
	digital	7,1 %	7,1 %	7,1 %	14,3 %	50	14,3 %
would be helpful for seminars	print	14,3 %	35,7 %	7,1 %	21,4 %	21,4	-
	digital	71,4 %	21,4 %	-	-	7,1	-
would be helpful for leisure	print	21,4 %	28,6 %	21,4 %	-	28,6	-
	digital	50 %	28,6 %	7,1 %	14,3 %	-	-

Tab. 4: Comparison between digital annotations on the TEASys website and printed ones in the Arden edition

There was found no correlation between participants' preferred medium for reading literary texts and for reading annotations: While they predominantly favoured printed texts, they valued digital annotations more highly than printed ones.

Participants were also given the opportunity to comment on the two different notes they had read. Many of the comments concerning the print annotation hint at problems that arise due to space restrictions. One student wrote that the Arden annotation "could have been longer", another complained that "it was just a repetition of the word in question, did not bring me any further", and a third explained that the abbreviation "'cf. TC 1.3,244'" was confusing. I guess it is referring to another work of Shakespeare". One participant was also annoyed that the print edition did not offer an annotation for the word he/she marked as requiring annotation the most: "It did not help me at all. I don't mind but others could be annoyed that they have to look the word or phrase up themselves". Concerning comprehensibility, two participants noted that the digital annotations "were easier to understand". One participant explicitly commented on TEASys (without knowing that this system exists) and said that he/she "liked the categories you could choose".

While the results of this part of the survey indicate that students have a very positive impression of the digital annotations on the TEASys website, some work is still required to find the right balance between providing too little and too much information, and to minimise the risk of delimiting readers' interpretation.

5.4.6 Feedback on the Layout and Features of the Website

In a last step, information on students' impression of the newly designed TEASys website was gathered. Their attitude towards several features that could be implemented in the future was also tested. Participants' assessment of the website was positive, but they were divided over many of the features that were suggested, meaning that the results obtained in this section are far from conclusive.

92,8% of the participants (strongly) agreed with the statement that they found the **website more helpful** than the printed edition. The same number thought that the website was **user-friendly** and that its **layout is appropriate** and does not distract from the text or the annotations. 78,5 % of the students (strongly) agreed that it was **obvious were they could find the information they needed**. It is likely that this number can be increased once the "About" page and a brief guided tour over all the features of our website are implemented. Participants were divided over the question whether they **felt**

obliged to read all parts (i.e. all levels and categories) of an annotation: While 57,1% (strongly) agreed with this statement, 21,4% (strongly) disagreed. Again, the number of those who feel that they have to read all sections of an annotation might decrease once the “About” page is made available. This page will explain the reasoning behind TEASys, namely that the system is meant to enable readers to only access those parts of the explanatory note that address their needs and interests. Unsurprisingly, the majority of participants (57,1 %) rejected the suggestion to **read a longer text** (e.g. a novel) on the website. This preference for print when reading longer texts has been observed in numerous studies (cf. Warwick, “Studying Users” 7; Tanner 2; Baron, Calixte, and Havewala 592, 596; also see 5.4.1 above). The majority of students (64,6%) also (strongly) agreed that they would not read a longer text on the website but **search the annotations** for helpful material. This percentage is, however, surprisingly low given that digital reading is frequently associated with non-linearity, consulting, and searching/browsing (cf. Götsche 61; Radvan 28; Ralle 147; Sutherland and Pierazzo 209; Baron, Calixte, and Havewala 592). Participants were divided over the question whether they would like to **read a printed book and look at the annotations on their smart phone**. While 42,9% strongly agreed, the same number (strongly) disagreed. For a future user study, a prototype of such an application could be designed and participants could test this function in practice (for more information see [chapter 6.1](#)). The feedback on the suggestion to be able to **save annotations as pdf or to print them** was positive, with 78,5% (strongly) agreeing.⁴⁹ This answer also suggests that readers might use the annotations for academic purposes rather than for leisure reading. However, participants were very divided over another feature that would be helpful for scholarly purposes, namely the possibility to **add personal notes** that no other user could see: 42,9% (strongly) agreed, but the same percentage (strongly) disagreed. The result is insofar surprising as “note taking is an integral part of reading” (Brockman et al. 7) and as a different survey found this to be the most desired function for a digital edition (albeit a tablet-based one) (cf. Kelly, “Tablet Computers” 136).⁵⁰ In terms of **collaborative annotating**, half of the participants answered that they would not like to contribute to the website by adding or revising annotations. A future user survey should test whether this reluctance is also to be found among (non-academic) enthusiasts or scholarly experts. Lastly, students were divided over the question whether the

⁴⁹ This function was suggested by Franzini, Terras, and Mahony (cf. 181).

⁵⁰ Another survey also found that the main reason why students prefer printed texts for assignments is the ability to easily take notes on them (cf. Morris 106).

annotations should contain **multimedia** elements: 35,7% (strongly) agreed with this suggestion, but the same percentage (strongly) disagreed. The easiest solution for this issue would be to provide multimedia elements but to allow users to hide all of them with the clicking of a single button.

	Strongly agree	agree	neutral	disagree	strongly disagree	don't know
The website is more helpful than the printed edition.	71,4 %	21,4 %	-	7,1 %	-	-
The website is user-friendly.	78,6 %	14,3 %	7,1 %	-	-	-
The layout is appropriate and does not distract.	78,6 %	14,3 %	7,1 %	-	-	-
It was obvious where I could find the information I needed.	71,4 %	7,1 %	14,3 %	7,1 %	-	-
I felt obliged to read all levels and categories	35,7 %	21,4 %	21,4 %	14,3 %	7,1 %	-
I would read a longer text on this website.	21,4 %	14,3 %	7,1 %	35,7 %	21,4 %	-
I would not read a longer text, but would search the annotations for material.	42,9 %	21,4 %	14,3 %	14,3 %	7,1 %	-
I would read a printed book and look at annotations on my smart phone.	42,9 %	-	14,3 %	35,7 %	7,1 %	-
I would like to print annotations or save them as pdf.	57,1 %	21,4 %	-	14,3 %	7,1 %	-
I would like to take personal notes (invisible for others).	14,3 %	28,6 %	7,1 %	28,6 %	21,4 %	-
I would like to contribute and revise annotations myself.	7,1 %	14,3 %	14,3 %	21,4 %	28,6 %	14,3 %
It would be helpful to include multimedia elements.	21,4 %	14,3 %	14,3 %	7,1 %	28,6 %	14,3 %

Tab. 5: Evaluation of the website and attitude towards possible features

Participants were also provided with a blank field in which they could suggest improvements for the website (both in terms of content and layout). One student suggested to let users comment on annotations – a feature that can, for example, also be found on the social annotating platform *Genius* (see [chapter 3](#)). Again, participants were divided over the inclusion of multimedia elements: While one of them explicitly desired pictures, another commented that he/she “would not add a video to that. Keep it simple!”. One comment also shows the importance of including a brief section that explains the reasoning behind TEASys as it “was not really clear how the language / level category is working”. It was also suggested that the user-friendliness of the annotations could be enhanced by “less text [and a] clearer distinction between different

aspects (e.g. bold print, colour)".⁵¹ Concerning the content, one participant commented that he/she would prefer much shorter notes and "less interpretation". This again shows the usefulness of a system like TEASys – a user with these preferences could filter out all information that is provided in an 'interpretation' category as well as all level 2 and 3 notes and only access brief, factual level 1 sections.

When asked which other features they would find useful, one participant answered "maybe a link to texts with similar words or content". This comment indicates that the strong focus that the Tübingen project puts on hyperlinking will – at least by some users – be highly appreciated. The desire to have access to pictures, which was already mentioned in the previous question, was again expressed. Concerning the user-friendliness of the layout, one student commented that it would be helpful to "have the option of seeing the annotations next to the text the whole time (without having to click through them separately)". This function could definitively be implemented during the next phase of developing the TEASys website. Such a feature can, for example, also be seen in *The Readers' Thoreau*, *The Mark Twain Project*, and *Infinite Ulysses*, all of which have been discussed in chapter 3.

Visconti was certainly right in stressing the importance of user surveys for the development of digital editions (cf. 'Songs' 54; 'How Can You' 1). Only by asking real readers about their preferences, attitudes, and needs can developers ensure that their project will make the transition from being an interesting idea to being a helpful and widely used tool.

6. The Future of Digital Annotating

6.1 Printed Literature and Digital Annotations?

The Problem

The results of the user survey discussed in 5.4.1 as well as other empirical evidence suggest that users still do not like to read texts on electronic devices (cf. Brockman et al. vii; Baron 195; Merga 237; Perrin 2). Research has found several reasons for the tendency to favour reading in print over digital reading. For one, users often feel that they get more easily distracted and cannot immerse themselves in the text when reading

⁵¹ To this aim, one could also use the guidelines suggested by Nielsen, which include highlighted keywords, meaningful sub-headings, and bulleted lists (cf. "How Users Read" n.pag.).

on an electronic device, especially in the case of long, complex texts (cf. Baron 195-96; Baron, Calixte, and Havewala 592; Hillesund and Bélisle 143). Furthermore, many users regret that the sensual aspect of reading – the smell and weight of the book and the feeling of the pages – is lost in the new medium (cf. Baron 198; Baron, Calixte, and Havewala 601; Hillesund and Bélisle 133-34; Kamzelak 502; Shillingsburg, “Negotiating” 3-4). Another reason is that the layout of websites that provide digital texts and tools for working with them is not (yet?) conventionalised. Whereas printed books can be used almost intuitively, the features of each online edition have to be explored and learned anew, which costs users a lot of time (cf. Ralle 150; Shillingsburg, “Principles” 25). Lastly, many readers also find it cumbersome to mark passages or take notes on a digital text (cf. Baron 198; Morris 106; Kelly, “Tablet Computers” 137). Many of these issues, i.e. immersion, sensual aspects, and intuitive use, suggest that it is especially in the case of leisure reading that users favour print. For example, Shrimplin et al. have found that even scholars who prefer to use electronic devices for academic reading use printed books when reading for pleasure (cf. 185-86). It is indeed sometimes argued that printed editions are best used for linear, immersive leisure reading, whereas digital editions are most suited for academic reading (cf. Sahle 2: 68; Straub 231). However, this dichotomy is only partly true: Concentration, for example, is essential for both immersive reading for pleasure *and* for scholarly close reading. Likewise, highlighting and taking notes, which readers perceive to be more comfortable in print, are primarily associated with academic reading. Baron, Calixte, and Havewala’s survey among university students found that print was favoured for both academic and leisure reading but – in contrast to Shrimplin et al.’s results – even more so for academic purposes (cf. 595-96; see also Kachaluba, Brady, and Critten 103). Hence, for both leisure and academic purposes, it seems that even in 2017 “large numbers of readers prefer print to digital formats”, and commentators are becoming less and less confident that this will change in the near future (Jubb 95; cf. 96).

For annotations, users’ preferences are vastly different: The results of the user survey discussed in chapter five suggest that digital explanatory notes are valued over printed ones. In his study on language learners’ use of glosses, Lenders found similar preferences: “many students printed texts out to read from paper and look up words on the computer” (Lenders 471). In other words, many readers want to use printed primary texts but digital annotations. As of yet, however, digital annotations are inextricably linked with digital editions; they cannot exist independently from the text to which they

refer.⁵² Hence, readers who want to make use of digital explanatory notes can only access them through such editions, which are usually designed to be displayed on PC or laptop screens, not on tablets or smart phones (cf. Kelly, “Tablet Computers” 123).⁵³ That is, even if readers tried to use a printed book and look at digital annotations, they would still have to sit behind a PC or laptop; reading on a bench or a train would be inconvenient or even impossible.

A Possible Solution

To remedy this problem, the Tübingen *Annotating Literature* project is currently developing a solution that will allow annotators to “carry the annotations to the readers, to whatever version of the text (print, online) they happen to have in front of them” (Bauer and Zirker, “Whipping Boys” par. 58). For this aim, a twofold approach was chosen. The first option is the ‘traditional’ one, i.e. both the digital edition and its annotations are displayed on a larger electronic device, i.e. a PC, laptop, or tablet. The second option is to separate the annotations from the primary text and display them – only them – on a smart phone. This way, readers can use a printed book or another online edition and simultaneously have access to annotations on their phone.⁵⁴ TEASys guarantees that the digital annotations will be suited for both for leisure and academic reading: Readers who want to immerse themselves in the primary printed text and only occasionally consult the notes can use the level 1 annotations, while scholars who want to critically engage with the printed text through close reading might also want to access levels 2 and 3. The fact that the explanations provided on the latter two levels are often quite long does not pose a problem as user tests have found that readers do not object to scrolling through longer texts on mobile phones (cf. McKay “A model for users”). Providing readers only with annotations instead of both primary text and notes also means that it will be possible to offer digital annotations for works that are still protected by copyright and hence cannot simply be displayed on a website. This new

⁵² Yet, in the context of print, it has often been suggested to publish annotations in a separate volume from the primary text, even though this idea seems to have been realised very rarely (cf. Schmidt 77; Roloff, “Fragen” 131; Witkowski 93, 135; Jungmayr and Mundt 160). As an exceptional case among digital annotating projects, [PynchonWiki](#) provides only annotations on its website and gives the respective page numbers of all available print editions at the beginning of each note.

⁵³ The current TEASys website, however, is mobile-friendly. Another exception to this rule is *e-codices*, an app for iPhone and iPad that allows users to “[s]earch, browse and view medieval and early modern manuscripts” (“[View Manuscript Pages](#)”).

⁵⁴ For examples of a similar hybrid method – printed academic monographs that are digitally enhanced – see Deegan (cf. 79-81).

hybrid solution is meant to co-exist with, rather than supplant, the ‘traditional’ large-screen mode. The Tübingen *Annotating Literature* project neither wants to discourage the use of digital editions nor is it certain that readers will *always* prefer printed over electronic texts as it would be “foolhardy to assume that future digital-reading platforms cannot overcome some of the shortcomings that current readers identified” (Baron 199). Most importantly, the two different modes of accessing annotations can be employed for different reading practices: Users should have access to annotations both when they are searching, browsing, or gathering material in a digital edition *and* when they are perusing the primary text in print.

There are two methods how the hybrid solution could work, one that is easier to develop and one that is more convenient to use. In both cases, all existing versions of the primary text would be recorded in a database and the annotations would be anchored in the respective words, sentences, or passages of all versions. Only thus can it be ensured that annotations can be found regardless of the print edition a user is working with, e.g. a reader can find a note on a sentence that only appears in some versions of the text. In the method that is easier to develop, users could type in a few words in a search bar and see all annotations that are anchored in these or surrounding words and passages. From these results, they could then choose the explanatory note that best matches their question to the text. The method that is more convenient to use is modelled on the live-translate function developed by Google. This function allows users to focus their camera on a text and immediately see its translation on their phone.⁵⁵ In the solution that could be developed by the Tübingen project, readers would focus their camera on a page or passage of the primary text, immediately see which annotations are available for it, and choose the one that best serves their purposes. In any case, it should also be possible to save explanatory notes, to automatically create a works cited entry for each of them, and to send an annotation via email if a user wants to look at it on a larger screen. Readers might also mark unannotated words or passages as requiring elucidation.

New Challenges

The development of such hybrid annotations also gives rise to new problems. For one, it is uncertain whether publishers will allow their critical versions of the primary text to be recorded in a database, despite the fact that this primary text will nowhere be displayed.

⁵⁵ For an example see [this gif](#) (cf. Zhang n.pag.).

Another problem is that users might become easily distracted when they are reading with their phone beside them, even though concentration is one of the aspects that are meant to be improved through the development of the hybrid model. As a remedy, one might implement a function that disables, or prevents access to, all other apps while the user is reading. Most importantly, it is not clear whether this hybrid solution will be accepted by readers. Even though the participants of the user survey discussed in chapter five had a very positive attitude towards both reading in print and digital annotations, they were highly divided over the question whether they would like to read a printed book and look at the annotations on their smart phone. Once the prototype for such a hybrid model will be ready, further user studies should address this question in more detail.

6.2 Collaboration, Authority, and Quality

The Problem

The advantages of collaborative annotating have been addressed in [chapter 2.5](#). However, for a collaborative annotating project to be used for research purposes, it does not suffice to solicit and publish user contributions; the *quality* of these contributions has to be ensured as well. Collaboratively created annotations have to be reliable and their reliability has to be communicated to users, who, as research has shown, quickly abandon digital resources they do not find sufficiently trustworthy (cf. Warwick, “Studying Users” 8). This problem is aggravated by the fact that digital resources in general are often perceived to be less trustworthy than printed ones, even if they were not created collaboratively (cf. Ralle 151; Sahle 2: 207; 217). Thus, if the slightest doubt about the quality of the annotations created in the context of a collaborative project remains, they will not be quoted in scholarly works and remain invisible for the academic world. This, in turn, will discourage possible contributors who might wonder why they should write explanatory notes when no one will use them. However, the same contributors might also be scared away when they fear that their work cannot live up to strict guidelines and standards enforced by editors. Collaborative annotating projects thus face a dilemma: They have to find a way to “establish quality control without discouraging user involvement” (Price 177; cf. Visconti, ‘How Can You’ 11; Boot n.pag.).

Possible Solutions

Regardless of which concrete method for quality control is employed, the project should follow two general principles for convincing users of its reliability. First of all, “[t]he more information users can find about a resource, the more they are likely to trust it” (Warwick, “Studying Users” 13). In a similar strain, Sahle argues that reservations about digital editions are mostly due to the fact that recipients do not yet have methods that allow them to quickly assess the quality and authority of such an edition, e.g. by immediately seeing which publishing house is behind it (cf. 2: 217; cf. also Willett 249). Hence, the collaborative annotating project should clearly state which institutions and scholars are in charge of it, as well as what its aims and principles are. The guidelines that are used for reviewing contributions should also be published on the project website. Furthermore, one could explicitly address concerns about trustworthiness and explain which measures are taken in order to ensure the quality of the annotations. The second principle is that, whenever possible, an annotation has to be based on reliable sources, which are cited accordingly. This way, the project can make use of the trustworthiness of its sources in order to improve users’ perception of its own reliability. Nevertheless, contributors who do not have access to scholarly materials that are kept behind pay walls could feel discouraged by this standard. The rise of Open Access (and of Sci-Hub) does, however, also enable non-scholars to use a wealth of academic resources.⁵⁶

There are several possible methods for ensuring the quality of collaboratively created annotations. The following discussion is not meant to exhaust all possibilities but to highlight some of the issues that have to be kept in mind when trying to find a compromise between quality and user engagement.

Democratic decision-making: In the *Infinite Ulysses* project (see [chapter 3.7](#)), registered users can up- and down-vote contributions and readers are able to decide whether they want to see “top-rated” or “lowest rated” annotations first. However, this voting function does not guarantee that the top-rated explanatory notes are reliable and

⁵⁶ The importance of Open Access for collaborative projects can also be seen in the example of Wikipedia: “the odds that an open access journal is referenced on the English Wikipedia are 47% higher compared to paywall journals” (Teplitskiy, Lu, and Duede 2116).

citeable.⁵⁷ For one, the project supervisor herself notes that “early voters [sic] opinions may carry more weight by disappearing an annotation from later readers' consideration” (Visconti, *How Can You* 14n22; cf. 25). Thus, the decision is not really democratic; rather, only a few early users decide whether an annotation is rated as helpful or not; the rest of the users never gets to see it because notes with low ratings are often hidden from their view. As a remedy, a “random sampling of all available annotations” for a certain page or item is shown by default, i.e. when a user decides not to automatically sort the annotations according to any criteria (cf. 14). However, even if low-rated annotations are made visible to later users, their own vote will possibly still be influenced by the ratings an annotation has already received. Another problem is that one cannot ascertain users' criteria for evaluating annotations. Even if there were guidelines on how to review notes, one could not be sure that users read them and act accordingly. Thus, rather than reviewing an annotation for its quality and reliability, users might down-vote it because they do not agree with its interpretative approach or because they have a personal feud with its author. It should also be expected that at least some of the users of a digital annotated edition do not know a lot about the primary text and its backgrounds. Such users would, for example, be unable to spot a factual mistake and, consequently, would not down-vote the annotation containing this mistake. They could only rate whether an annotation *seems* to be trustworthy rather than evaluate its actual reliability. Lastly, the possibility to up- and down-vote annotations might remind many users of Facebook or Reddit, thereby undermining the scholarly nature and trustworthiness of the project.

Lay editors: *Genius* uses a method that allows every registered user to add an annotation that is displayed immediately but has to be approved by an editor in order to be marked as an official ‘Genius Annotation’. The editor can also revise or reject an annotation. Like all users, editors are only known under a pseudonym. Their qualifications (apart from statistics concerning their contributions and the fact that they are labelled as editors) are nowhere recorded. From the guidelines of *Genius* it does not become apparent whether editors only review annotations that belong to their field of expertise but this seems unlikely given the great amount of different primary texts on the website. Hence, the method of using anonymous lay editors is not suited for

⁵⁷ Academic reliability is, however, not the aim of the *Infinite Ulysses* project. Rather, Visconti aims at finding the best way to promote user participation and collaboration between expert and non-expert contributors.

ensuring the academic quality of annotations because their expertise remains unclear. That is, such editors are allowed to evaluate annotations even if they have never read the primary text that they refer to. In the case of *Genius* it indeed often seems that editors take care of general issues (e.g. spelling mistakes or obvious misunderstandings) but cannot point out more subtle factual mistakes or make specific suggestions for further research. This method could also discourage possible contributors, who might object to the fact that the fate of their annotations lies in the hands of an unknown, almost omnipotent editor. Another problem is that the process of becoming an editor on *Genius* is not entirely transparent: A contributor can ‘apply’ to become an editor; then, someone who already is an editor evaluates the applicant’s annotations and decides whether he or she can become an editor as well (cf. “[What is an Editor?](#)”). The danger of allowing a single person to accept or reject an applicant is that existing editors might only accept users who share their opinions, for example in terms of literary taste or politics. This runs contrary to one of the aims of collaborative annotating, namely of collecting a range of different approaches to, and interpretations of, a text. As a whole, the method employed by *Genius* is not sufficiently transparent and quality-oriented to guarantee the citeability of its annotations.

Professional editors: Quality control could also be enforced by the staff of the annotating project rather than by anonymous editors chosen from the user community. The real names and qualifications of all staff members would be known and it would be ensured that each annotation is reviewed by the person who is most suited to the task. Ideally, the editor would not simply accept, reject, or revise an annotation but publicly explain the reasons for doing so. In controversial cases, the contributor might also ask other professional editors for their opinion on an explanatory note. This method would ensure that editors are able to evaluate annotations on a constructive and sophisticated level, and that contributors are not at the mercy of anonymous editors. However, it is questionable whether collaborative annotating projects can afford to employ a sufficiently large number of staff members in order to (a) cover all fields of expertise and (b) review a potentially great amount of contributions. Furthermore, volunteer contributors might feel intimidated when they know that their notes will be reviewed by academics, or they might lack the incentive to produce work, considering that they can

never be promoted to the position of an editor themselves.⁵⁸ And again, despite the fact that editors would have to act under their real name and publicly justify their decisions, they would still occupy a position of great power and could severely delimit interpretation.

Verified academic contributors: “The restriction of scholarship to the academy provided forms of control and quality assurance” (Robinson, “Electronic Editions” 158; cf. also Price 184). Thus, another possible solution would be to allow only scholars to contribute and to make the disclosure of one’s full name and qualifications a prerequisite for joining the ranks of collaborators. Users could, for example, verify themselves using their university email address. In this case, the contributors would be responsible for the reliability of their annotations and, since the notes are published under their real name, it would be in their best interest to produce high-quality work. However, a small team of editors working for the annotating project would still be in charge of revising and formatting contributions. Hence, explanatory notes would be treated similar to contributions to an edited book or journal. Ambitious projects could even introduce a peer-review process for annotations. As they would use their own names, scholars would also be able to list the annotations among their publications, which – especially among early-career researchers – could be an incentive to contribute. This method would ensure quality and promote trust. However, it would exclude non-academic contributors, thereby counteracting one of the aims of collaborative annotating. And again, the reviewing process (be it through the editors or through peer-review) would most likely lead to some interpretative approaches being omitted from the edition.

Mixing academic, ‘progressing’, and non-academic annotations: One could also find a compromise between only accepting academically reliable contributions, thereby discouraging possible contributors, and indiscriminately accepting all contributions, thereby compromising the quality of the edition. For this aim, all users (regardless of their background) could be given the opportunity to choose whether they want to hand in their contribution for review or not. The reviewers would either be external scholars or work directly for the project. Contributions that have been successfully reviewed

⁵⁸ It is not clear to what extent contributors of annotating projects are motivated by the possibility to gain points or to be promoted to a higher rank, both of which are features of *Genius*.

would be marked as academic annotations. The other, non-academic annotations would nevertheless be published (albeit without a seal of quality) and consist of three groups: (1) contributions that failed the review, (2) drafts of annotations that are still being revised until they are fit for review, and (3) annotations that are not meant for review, e.g. because they only contain a personal remark on a passage, or because the author does not have the time, resources, or motivation to write academically reliable notes. Even though the explanatory notes in these three groups do not have to be academic, it would still be ensured that they adhere to some minimum standards, e.g. that they are not mere spam.

The problem with dividing annotations into academic ones and ‘others’ is that it creates a hierarchy and, consequently, that the latter might be treated as second-rate notes. This, in turn, can discourage users who fear that their contributions would not pass the review or whose annotations have already failed it. As a remedy, the project guidelines should make clear that rejections are not final and encourage contributors to work on their rejected or non-reviewed annotations, e.g. with the assistance of reviewers and other contributors. For this, users should be able to comment on others’ annotations⁵⁹ and a general forum for discussions about a primary text or annotating in general could be implemented. The rejected or non-reviewed annotations should thus not be seen as ‘bad’, ‘unhelpful’, or ‘unreliable’ but rather as ‘in the making’. To this aim, a colour-coding system as used by the Tübingen *Annotating Literature* project could be introduced, in which red stands for ‘still needs a lot of work’, yellow for ‘on a good way’, and green (the seal of quality) for ‘reviewed and reliable’. For those annotations that the author does not want to revise or hand in for review (group 3 above), a different colour should be chosen.

By providing scholarly annotations, annotations that are in the process of becoming scholarly, and notes that are not intended to be academically reliable, a project is able to address different groups of contributors and readers. Scholars and non-academic enthusiasts can publish trustworthy notes meant for academic re-use; others can annotate the primary text just for fun and share their personal impressions with other users. Readers of all backgrounds and levels of expertise would be encouraged to contribute without having to fear that an omnipotent editor prevents their notes from

⁵⁹ Commenting on annotations in order to suggest improvements is also possible on *Genius*. However, unlike *Genius*, the method that is outlined here puts a strong focus on academic standards, and the comments would at least partly be made by scholars rather than non-expert users.

being published. Furthermore, users would be able to see immediately which notes they can unhesitatingly quote in a scholarly work, and, if necessary, they could filter out all annotations not bearing the quality seal. The danger of delimiting interpretation, which is inherent in every reviewing process, can also be reduced as annotations could be published without prior review. Hence, these notes could contain interpretative approaches that deviate from or even contradict those that are included in reviewed notes. (This would, however, still create a hierarchy as some interpretations would be marked as academic and some as not. It seems that this risk can never be wholly avoided without impairing the academic quality of a project.)

When put into practice, this solution could indeed achieve a balance between guaranteeing academic reliability and promoting user engagement. Such a project would, of course, require a certain number of staff members that are in charge of reviewing annotations or of finding external experts who could act as reviewers. However, since not every annotation would have to be academic and since not all users would want to hand in their notes for review, this number could remain rather small, depending on the resources of the project.

6.3 Revision, Persistence, and Citeability

The revision of content keeps explanatory notes up-to-date, while the revision of layout enhances the user-friendliness and perceived trustworthiness of a project website. Concerning the latter, a survey by Visconti has found that the design of a website can greatly affect its credibility: participants answered that the *Blake Archive*, actually an academically impeccable project, did not seem trustworthy due to the old-fashioned layout it had at the time when the survey was conducted (cf. Visconti, 'Songs' 34). Digital projects hence face a dilemma: they have to be continually revised in order to remain state-of-the-art, but it is exactly this revision that makes them unreliable in terms of content stability (cf. Sahle 2: 115-16). Yet, revision is not the only problem that threatens the citeability of digital projects. Link rotting, technical obsolescence, uncertain long-term accessibility, and the abandonment of projects are others. Thus, it is not surprising that scholars often voice concerns about the persistence of digital resources (cf. Ralle 145; Ott 195-200; Schepers 204; Pierazzo, 56-57; Sahle 2: 203; 212; Brockman et al. 30; Roselli Del Turco 228). Indeed, it appears that this is one of the reasons why digital editions are used more often than they are cited (cf. Roselli Del Turco 224). As long as their persistence and citeability remain questionable, digital

projects will be undeservedly invisible in lists of works cited, and funding institutions might wonder why they should support projects that are seemingly not used by academics. Furthermore, scholars and volunteer contributors cannot be expected to prepare work for a project when its stability “cannot be guaranteed beyond the lifetime of the software company and of the public funding (almost certainly temporary) of an electronic repository” (cf. Eggert, “The Book” 74). Thus, a way has to be found that guarantees authors and users of digital annotations that these notes are stable, reliable, and persistent enough to be unhesitatingly quoted. Deegan even argues that “[d]igital preservation is one of the most important challenges facing the academy [...] as we move further and further towards digital and open content” (93).

In order to be stable and persistent, an annotation has to meet three requirements: (1) It has to be unambiguously identifiable. (2) Users have to be able to find again exactly that version of an annotation from which they quoted. (3) It has to be ensured that the annotation itself (or even the whole project) will not simply ‘vanish’ at any point in the future.

Referencing

In order to be used in scholarly works, a digital annotation (or, as in the case of TEASys, each of its parts) has to be unequivocally identifiable, and the link included in the works cited entry always has to lead to the same annotation. ‘Dead’ links that only point to a ‘404 – Page not found’ site because the location of an annotation has changed are not acceptable in an academic publication (cf. Rosselli Del Turco 228; cf. Pierazzo, 56-57). By now, feasible solutions for avoiding the risk of so-called link rotting have been developed, for example Handles, DOIs, or persistent URLs.⁶⁰ The annotating projects *Genius*, *Infinite Ulysses*, and *The Readers’ Thoreau* use the latter, and each of their stable URLs consists of a unique code for the respective note. This ensures that a link leads to only one specific annotation and that the place where the note is located never changes. This method also allows contributors to create links between annotations. The problem of unambiguous and stable referencing can thus be solved rather easily. It is also recommended to offer an automatic citation generator on the project website (as done, for example, in the *Mark Twain Project*) (cf. Sahle 2: 216). The easier it is to refer to an annotation, the likelier it is that it will be cited in scholarly works.

⁶⁰ For a comprehensive overview over such persistent identifiers see Hilse and Kothe.

Content Revision and Content Stability

The ability to revise annotations is one of the great advantages of publishing them digitally. New findings and innovative interpretative approaches can easily be included, which ensures that the explanatory notes do not grow outdated and always reflect the latest state of the art. If annotations contain links to external resources, they even *have* to be revised regularly in order to see whether all links still lead where they should. Furthermore, in a collaborative annotating project like the one that was outlined at the [end of chapter 6.2](#), contributors have to be able to work on their notes until they adhere to academic standards. Thus, unlike a printed edition, a digital project can never be seen as finished (cf. Ralle 147). This gives rise to two problems. First, who in a collaborative project is allowed to revise which annotations? And, second, how can we guarantee users who quote from annotations that they will be able to find the exact text they quoted even after the note has been significantly revised several times? The first problem arises from the fact that some contributors might become annoyed when others can simply change an annotation they wrote. However, one should not bar other users from contributing to a note just because they are not its original creators. This would counteract the idea of collaborative annotating, which relies on the principle that the more users contribute, the more knowledge amasses, the more allusions can be identified, and the more interpretative approaches are included. In some cases, notes even *have* to be revised by others, e.g. when the original authors do not have the time to do so themselves or when they abandon the project altogether. The only exception to this unrestricted collaboration is when a note has been marked as a personal comment by the author, who, in this case, should be the only one who can alter it. (For this distinction between academic and personal notes see the last part of [chapter 6.2](#).) The second issue is one of academic transparency and reliability. When an author decides to use an annotation for a scholarly work, the link in the list of works cited should not lead to an annotation that is in any way different from the one that was originally quoted or cited by the author.

For both of these problems the answer is versioning, which is also recommended by Sahle (cf. 2: 215). Whenever an annotation is revised, a new version of this note should be created, which receives a unique stable URL and a timestamp. The old version is archived but still accessible, for example through a list that records all stages of a note. Each annotation should contain a link to such a list, and users who access an older stage of a note should be informed that a revised version is available. The stable

URL and the timestamp ensure that every version of an explanatory note is unambiguously identifiable. Each note would name all users who contributed to it in its present form. Readers should also be able to compare versions and see which parts were changed by which author. When a note that has been marked as academically reliable is altered, these changes have to be reviewed by an editor in order to ensure that the annotation still adheres to scholarly standards.

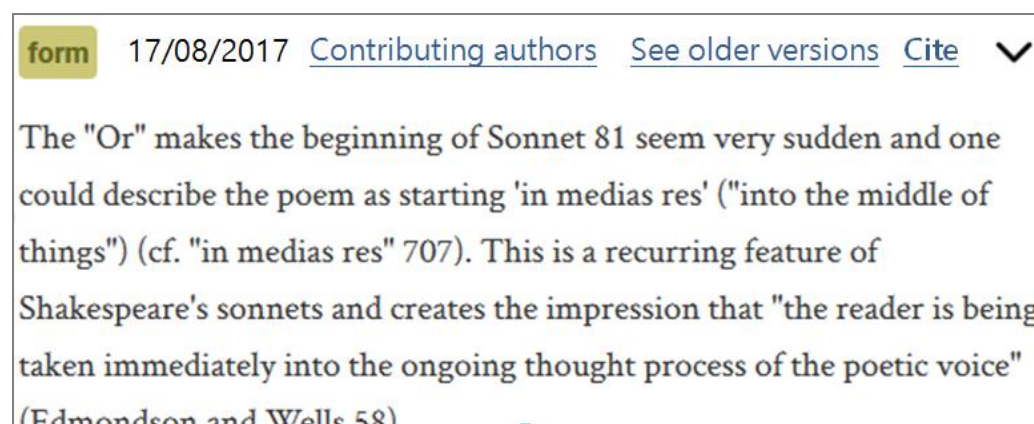


Fig. 6: How a versioned annotation on the TEASys website could look like

Preventing the Abandonment of Projects

Once a print edition has been published, its editors and contributors can focus on new tasks. Digital editions, in contrast, require constant administration and updates. Bugs have to be fixed, the layout has to be modernised from time to time, and staff members either have to revise the content themselves (in non-collaborative projects) or supervise volunteer users' contributions. When users get the impression that a project is no longer updated because its creators have abandoned it, they will doubt its reliability and no longer consult or cite it. Likewise, volunteers might feel forsaken and stop contributing or revising annotations. The abandonment of digital projects, especially of smaller ones, is a rather frequent occurrence and, in some cases, projects even disappear from the internet altogether (cf. Sahle 2: 78). Sahle observes that this is mostly due to the fact that such projects are usually underfinanced, subject to fluctuations in staff, and often begun by young scholars, who neither are firmly embedded in an institution, nor have the time or funding to commit themselves to the project in the long run (cf. 78). As a remedy, he suggests that smaller projects should form parts of one larger project, thereby profiting from its institutional stability, overarching methodology, and technical expertise (cf. 81). An example of such a larger project is *Romantic Circles*, which is a collection of different peer-reviewed digital editions of Romantic works and of

scholarly resources (cf. 80). On a smaller scale, the Tübingen *Annotating Literature* project strives to provide users with annotated texts from different genres and periods which are compiled in one place rather than published on different websites and which all adhere to the same framework: TEASys. The growing institutionalisation of the larger annotating project will ensure the survival of the smaller groups, which focus on different texts or genres. These groups do not have to be concerned with technological issues or funding and can thus fully concentrate on their main task, the annotation of literary texts. In terms of sustainability, another advantage of the Tübingen project is that it does not solely rely on external contributors on the web but also on university-based annotating groups from which staff members can be recruited.

A collaborative annotating project does not only need enough administrators but also enough volunteer contributors. Otherwise, the number and extent of the explanatory notes for each primary text will never suffice to help readers understand these texts in their full scope, and users will become frustrated when, several years after its publication, a digital edition still offers fewer notes than a printed one. There is a certain danger that contributors only add a small number annotations out of curiosity for how the project works and then abandon it for the next. Hence, one has to find incentives that ensure that many users want to work for the project in the first place and that they will keep working once the novelty has worn off. Possible motivations are (1) rankings that show which users have contributed the most annotations during a certain time span, (2) the possibility for scholars to publish under their real name and thus being able to use the annotations on their list of publications, or (3) a “cited by” button similar to the one employed by Google Scholar, which shows when an annotation has been used in a scholarly publication. In the Tübingen project, students can also gain ECTS when they participate in a regular university seminar or in extra-curricular peer groups and write a certain number of annotations. This method ensures that the growth of the project does not exclusively depend on volunteer contributions.

Technical Obsolescence and Long-Term Storage

One of the reasons why many scholars are wary of citing digital resources is that they are more threatened by technical obsolescence than printed books (cf. Sahle 2: 115; 203; Steding 193; Brockman et al. 30; Ott 196). Indeed, it is easier to access and read a book that was printed one hundred years ago than it is to access and read a microfiche or floppy disk. The conventionalised, stable nature of the printed book forms a stark

contrast to digital data formats and storage media that are quickly superseded by newer solutions. Furthermore, it is easy to assure oneself that all of one's books are still standing on their shelves, whereas digital editions are characterised by their “disconcerting lack of physical presence” and elude the reader's sense of possession (Tolva n.pag.).

Thus, in order to be perceived as reliable and citeable, digital annotating projects have to show users that they have a feasible plan for ensuring that they will still be accessible in twenty or fifty years' time. For this aim, the data of a project has to be stored in a form that will be readable (or at least easily convertible) in future decades, and it has to be stored on a persistent medium maintained by a trustworthy institution. On a general note, Boot advises to “keep things as easy as possible”, which means to “reduce the number of software and hardware components that an edition depends on, to reduce the amount of expertise required to keep the edition running” (n.pag.). Hence, a balance has to be found between offering an appealing design and many features on the one hand and ensuring that a project is not error-prone and can survive without much funding that could be spent on IT experts on the other. It is also often suggested to “decouple the edition data from the visualisation mechanism”, i.e. to only store the content of a project rather than both content and layout, the latter being too dependent on changing technologies (Rosselli Del Turco 234; cf. Ender 45; Ott 199). For this aim, the edition data is most frequently formatted in XML (often TEI-XML), a standardised format that makes it very likely that the “core of the edition will still be readable and usable for a very long time” (Rosselli Del Turco 234). The project data is then entrusted with a university library or other larger institution that has the experts and appropriate technological means for persistent long-time storage (cf. 234-35). Only thus can it be ensured that future readers can benefit from the year-long work of project staff and volunteer contributors.

7. Conclusion

“In Editing a Good Novel, the Best Footnote is Zero” runs the title of an article in the *Chronicle of Higher Education* (Beehler n.pag.). Annotations “are often necessary, but they are necessary evils” Samuel Johnson claims (Johnson 111). According to these arguments, explanatory notes mainly distract readers and interfere with their reading experience: They “interrupt[s] our engagement with the book” (Beehler n.pag.); “[t]he mind is refrigerated by interruption; the thoughts are diverted from the principal

subject” (Johnson 111). However, all empirical evidence on readers’ attitudes towards annotations (gathered in this study and elsewhere) suggests that they do not object to such interruptions (cf. chapters 5.1 and 5.4.2). In general, they perceive explanatory notes as helpful resources rather than annoying, garrulous, or patronising addenda to a primary text that could be far better enjoyed without them. Nonetheless, Beehler and Johnson have a point. Annotations *do* get between reader and work, and they *do* make readers concentrate on a text other than the primary one for a moment. This is worthwhile as long as they gain something from this temporary shift of focus. However, a considerable percentage of participants in my survey noted that annotations often do not answer the questions they have while reading (cf. 5.4.2). Explanatory notes are not inherently helpful, and the *ideal* annotation consists of many components that heavily rely on the properties of the medium in which it is published. Such an ideal annotation has to be easily and immediately accessible when needed but must remain unobtrusive or invisible when not. It has to answer all questions that could possibly arise from a certain word or passage as well as those questions that “readers do *not* ask themselves while reading a text but which, after reading the annotation, they feel they should have asked” (Niederhoff n.pag, my emphasis). The ideal annotation makes it easy for readers to find in this wealth of information exactly those parts that are of interest to them, i.e. it takes into account the individual needs of each user. It does not present its findings in isolation but always relates them to the primary text as a whole and to related explanatory notes. It is academically reliable and always includes the most recent scholarship. It provides additional material (e.g. videos) that can further enhance understanding. It does not reflect the knowledge and interpretative approach of one single annotator but of everyone who comes across the primary text and can add elucidating information to it. As has been shown in chapter 2, such an ideal annotation can only exist in the digital medium.

The review of eleven of the most innovative digital annotating projects has shown in which respects they already attain this ideal and in which they still fall short of it. Partly satisfying solutions have already been achieved in the area of indicating and presenting annotations. Hence, the designs of different projects could be combined in order to let users choose the one that best serves their needs and preferences. However, none of the projects has found a satisfactory way of indicating very long or overlapping annotations in the primary text. The problem of how to make each note identifiable has been solved adequately, namely through the use of unique, stable URLs. Nevertheless,

the review has also shown that, in many other areas, the eleven projects do not make full use of the possibilities of their medium. Their annotations are often not more numerous or longer than those in printed editions, meaning that they leave many potential questions unanswered. Furthermore, they only rarely contain links between notes; neither do most of them include multimedia elements other than images. Only three of the projects allowed users to add and revise annotations, without, however, being able to ensure their academic quality. Lastly, the projects were not entirely able to systematise the content of their annotations in ways that allow readers to find information that is tailored to their individual needs.

Chapter four presented a remedy for this problem: TEASys. This system divides annotations into levels, which describe the depth and extensiveness of each part of the note, and categories, which refer to the fields of knowledge these parts address. Thereby, the individual needs and interests of each reader can be taken into account. The levels and categories are carefully defined and consistently applied to all annotations that are written in the context of the Tübingen *Annotating Literature* project. In comparison to the projects discussed in chapter three, this one also puts a strong focus on linking annotations, on including different multimedia elements, and on providing much more extensive information, which is then systematised in accordance with TEASys. Furthermore, the Tübingen project fosters the collaborative creation of annotations, both in the context of university seminars and of volunteer contributions from the web. In the former, annotating is employed as a teaching tool and the impact of writing their own explanatory notes on students' reading comprehension is tested.

The user survey presented in chapter five confirmed several of the findings reported in other studies, namely that people prefer reading printed texts over digital ones, that readers highly appreciate annotations, and that they favour notes explaining the meanings of words and phrases over other kinds of explanatory notes. The most important new insight is that participants found the digital annotations, which applied the principles of TEASys, more helpful than the printed ones in the Arden edition. However, the results of this survey also suggest that further work must be undertaken in order not to delimit readers' interpretation through TEASys annotations. Furthermore, the majority of participants felt obliged to read all parts (i.e. levels and categories) of an annotation, which runs counter to the aims of TEASys. Encouraging users to only read those parts that interest them will be one of the great challenges for the Tübingen project in the future. Many of the questions concerning the additional features that

might be implemented in the website did not yield conclusive results. For example, participants were divided over the inclusion of multimedia elements or the possibility to read a printed book and look at its annotations on their smart phone. As the website of the Tübingen project is still in a phase of development, further surveys should strive to find out users' exact preferences in terms of the layout, content, and additional features of the site, as well as concerning TEASys itself. For example, it is worth examining whether readers would like to open long annotations in a new tab, whether they agree with the exact definitions of the TEASys categories, and whether they would like to make public comments on others' annotations.⁶¹ Furthermore, the next survey should address a greater number of participants, which would then also include scholars and non-academic enthusiasts interested in the primary text. In order to substantiate the finding that users perceive digital TEASys annotations as more helpful than unsystematic printed ones, empirical studies could also test the effect of TEASys annotations on readers' text comprehension. Despite its exploratory nature, the survey discussed in chapter five inspires confidence about the future of digital annotating as participants have shown a marked preference for digital explanatory notes over printed ones.

The fact that the website of the Tübingen project received positive feedback in a survey does, however, still not mean that participants would really use its annotations in the future, especially in the case of reading for academic purposes. In order to supplant printed resources, digital ones must have great advantages in terms of user-friendliness and content; otherwise, readers will most likely stick to the old, trusted medium (cf. Robinson, "Electronic Editions" 149; Sahle 2: 250). The new possibilities discussed in chapter two alone might not be enough to convince readers of the enhanced usefulness of digital annotations. Chapter six thus discussed three issues that have to be resolved if explanatory notes published in the new medium are to gain widespread acceptance. The main solutions, i.e. allowing users to read a printed book and consult annotations on their smart phone, accepting reviewed academic contributions as well as non-scholarly ones (and labeling them accordingly), and making accessible all versions of a note, are mere theory so far. For all three of them, prototypes have to be developed and tested. Digital explanatory annotations will only be widely used once they are both able to address those aspects that readers dislike about printed ones *and* to solve the problems

⁶¹ For further, more general questions that could be addressed in future user surveys see Steding (cf. 217-18) and Visconti (cf. 'How Can You' 22).

that result from their publication in a new medium. Nothing but continued user feedback can ensure that every facet of a digital annotation – its layout, its content, its user-friendliness, its reliability – is improved until it fully meets readers’ needs and wishes. In the digital medium, annotators are able to overcome many of the restrictions of print. Yet, there are still theoretical and practical challenges that have to be addressed before one can achieve the ideal of digital explanatory notes that readers can use regardless of the medium in which they are reading the primary text, that are academically reliable without delimiting interpretation, and that combine the dynamics of the digital medium with the persistence of print.

Explanatory notes do not only provide readers with the means to understand, interpret, and enjoy a text. They also serve a social function by bridging the gap between academia and the general public. This means that they are the main way in which humanities scholars can make their research available to non-experts and prove the relevance – so frequently questioned⁶² – of their field to society as a whole (cf. Bluhm 144, 152; Ricklefs 37, 69, 71). It is very likely indeed that the only time many readers come into contact with the fruits of (literary) scholarship is when they read annotations. This makes it all the more important that these notes become adapted to the needs and practices of twenty-first-century readers. Digital *collaborative* annotations also bridge this gap in another way: They ensure that readers do not remain at the receiving end of annotations but can actively contribute to them by sharing their own expertise, thereby creating explanatory notes that contain more knowledge and answer more questions than ever before.

The origin of annotating dates back to the sixth century before Christ (cf. Roloff, “Zur Geschichte” 4). The shift from printed to digital annotations can be seen as one of the main turning points in this long history. It only has to be done properly – with careful reflection and a sustained consideration of readers’ needs and wishes.

⁶² See, for example, Fish (cf. n.pag.), Teichert (cf. 129), or Murphy (cf. 2-3).

Works Cited: Digital Annotating Projects Reviewed in Chapter 3

The shortened titles that were used to refer to the projects in chapter 3 are printed in bold.

Boyd, Brian, editor. *Ada Online*. 1992, <http://www.ada.auckland.ac.nz/index.htm>.

Cox, John D., editor. "Julius Caesar." *Internet Shakespeare Editions (ISE)*. 2012, http://internetshakespeare.uvic.ca/doc/JC_M/scene/1.1/#tln-14.

Fadem, Richard, editor. "Pride and Prejudice." *BookDoors*. 2010, http://www.bookdoors.com/book_detail.php?bookID=2&page=1.

Fischer, Victor, and Lin Salamo, editors. "The Adventures of Huckleberry Finn: An Electronic Text." *The Mark Twain Project*. 2009, <http://www.marktwainproject.org/xtf/view?docId=works/MTDP10000.xml;style=work;brand=mtp>.

Genius. No editor. Genius Media Group. 2009. <https://genius.com/William-shakespeare-sonnet-18-shall-i-compare-thee-to-a-summers-day-annotated>.

Kahn, Andrew, editor. "**Bartleby**, The Scrivener. A[n interactive, annotated] story of Wall Street." *Slate*. 22 Oct. 2015, http://www.slate.com/articles/arts/culturebox/2015/10/herman_melville_s_bartleby_the_scrivener_an_interactive_annotated_text.html.

Luxon, Thomas H., editor. "Paradise Lost." *The John Milton Reading Room*. n.d., https://www.dartmouth.edu/~milton/reading_room/pl/book_1/text.shtml.

O'Neill, John, editor. *La Entretenida by Miguel de Cervantes*. 2012, <http://entretenida.outofthewings.org/index.html>.

Schacht, Paul, editor. "Walden; or, Life in the Woods." *The Readers' Thoreau*. 2014, <http://commons.digitalthoreau.org/walden/>.

Schafer, Elizabeth, editor. "The City Wit." *Richard Brome Online*. 2010, <https://www.hrionline.ac.uk/brome/viewTranscripts.jsp?play=CW&act=1&type=BOTH>.

Visconti, Amanda, editor. *Infinite Ulysses*. 2008, <http://www.infiniteulysses.com/ulysses/3>.

Works Cited

- AbuSeileek, Ali F. "Hypermedia Annotation Presentation: The Effect of Location and Type on the EFL Learners' Achievement in Reading Comprehension and Vocabulary Acquisition." *Computers & Education* 57.1 (2011): 1281–91.
- "Annotated Web Edition Directory: Criteria for Evaluation." *Explanatory Annotation – A Research Project in Literary Annotation*. 2016. Web. 8 June 2017. http://www.annotation.es.uni-tuebingen.de/?page_id=457.
- Agosti, Maristella, and Nicola Ferro. "A Formal Model of Annotations of Digital Content." *ACM Trans. Inf. Syst.* 26.1 (2007): 3:1-3:57.
- Arbuckle, Alyssa. "Considering The Waste Land for iPad and Weird Fiction as Models for the Public Digital Edition." *Digital Studies / Le champ numérique* (2014). Web. https://www.digitalstudies.org/ojs/index.php/digital_studies/article/view/264/329.
- Arnold, Günter. "Versuch eines Kommentars zu Herder-Briefe, Band 1, Nr. 58." *Editio: internationales Jahrbuch für Editionswissenschaft* 2 (1988): 19–34.
- Arnold, Günter. "Vom heuristischen Wert eines kommentierenden Registers." *Kommentierungsverfahren und Kommentarformen: Hamburger Kolloquium der Arbeitsgemeinschaft für Germanistische Edition 4. bis 7. März 1992; autor- und problembezogene Referate*. Ed. Gunter Martens. Tübingen: Niemeyer, 1993. 237–241.
- Austermühl, Elke. "Kommentar, Interpretation und ästhetische Analyse. Zur Bedeutung der Kommentierung für das Verständnis der Dramen Frank Wedekinds am Beispiel „Der Kammersänger"." *Kommentierungsverfahren und Kommentarformen: Hamburger Kolloquium der Arbeitsgemeinschaft für Germanistische Edition 4. bis 7. März 1992; autor- und problembezogene Referate*. Ed. Gunter Martens. Tübingen: Niemeyer, 1993. 55–61.
- Baron, Naomi S. "Redefining Reading: The Impact of Digital Communication Media." *PMLA* 128.1 (2013): 193–200.
- Baron, Naomi S., Rachele M. Calixte, and Mazneen Havewala. "The Persistence of Print Among University Students: An Exploratory Study." *Telematics and Informatics* 34.5 (2017): 590–604.
- Battestin, Martin C. "A Rationale of Literary Annotation: The Example of Fielding's Novel." *Studies in Bibliography: Papers of the Bibliographical Society of the University of Virginia (SB)* 34 (1981): 1–22.
- Bauer, Matthias, and Angelika Zirker. "Explanatory Annotation of Literary Texts and the Reader: Seven Types of Problems." *IJHAC* 11.2 (2017): 212–32.
- Bauer, Matthias, and Angelika Zirker. "Whipping Boys Explained: Literary Annotation and Digital Humanities." *Literary Studies in the Digital Age: An Evolving Anthology*. Ed. Kenneth M. Price and Ray Siemens. New York: Modern Language Association of America, 2013-. n.pag. Web. 18 Apr. 2017. <https://dlsanthology.mla.hcommons.org/whipping-boys-explained-literary-annotation-and-digital-humanities/>.
- Beehler, Rodger. "In Editing a Good Novel, the Best Footnote is Zero." *Chronicle of Higher Education* 47.26 (2001): n.pag.
- Bélanger, Marie-Eve. *Annotations and the Digital Humanities Research Cycle: Implications for Personal Information and Management*, 2010. Web. 19 June 2017. <https://www.ideals.illinois.edu/bitstream/handle/2142/15035/belanger.pdf?sequence=2>.
- Bélisle, Claire, ed. *La lecture numérique : réalités, enjeux et perspectives*. Villeurbanne Cedex: Presses de l'enssib, 2004.

- Benson, Larry D., editor, and Geoffrey Chaucer. *The Riverside Chaucer*. 3rd ed. Boston et al.: Houghton Mifflin, 1987.
- Berg, Günter. "Kommentare und Register in wissenschaftlichen Studienausgaben: Bertolt Brechts Werke in 30 Bänden." *Kommentierungsverfahren und Kommentarformen: Hamburger Kolloquium der Arbeitsgemeinschaft für Germanistische Edition 4. bis 7. März 1992; autor- und problembezogene Referate*. Ed. Gunter Martens. Tübingen: Niemeyer, 1993. 216–22.
- Bluhm, Lothar. "Anmerkungen zur Kommentierungspraxis moderner Editionen am Beispiel der Innsbrucker Trakl-Ausgabe: Eine kritische Betrachtung." *Edition und Interpretation moderner Lyrik seit Hölderlin*. Ed. Dieter Burdorf. Berlin: de Gruyter, 2010. 141–53.
- Bogner, Ralf G. "Die exemplarische Kommentierung rhetorischer, poetischer und sprachästhetischer Textproduktionsmuster in Editionen frühneuzeitlicher Texte." *Quelle - Text - Edition: Ergebnisse der österreichisch-deutschen Fachtagung der Arbeitsgemeinschaft für Germanistische Edition in Graz vom 28. Februar bis 3. März 1996*. Ed. Anton Schwob and Erwin Streitfeld. Tübingen: Niemeyer, 1997. 133–39.
- Boot, Peter. "Some Digital Editions and Some Remaining Challenges." *JANUS. Estudios sobre el siglo de oro* 2012. Web. 25 Apr. 2017. <http://www.janusdigital.es/articulo.htm?id=7>.
- Bradley, John, and Paul Vetch. "Supporting Annotation as a Scholarly Tool-- Experiences From the *Online Chopin Variorum Edition*." *Literary and Linguistic Computing* 22.2 (2006): 225–41. Web. 26 Apr. 2017. DOI: <https://doi.org/10.1093/lc/fqm001>.
- Brockman, William S., Laura Neumann, Carole L. Palmer, and Tonyia J. Tidline. *Scholarly Work in the Humanities and the Evolving Information Environment*. Washington D.C. Digital Library Federation Council on Library and Information Resources, 2001.
- Bürger, Jan. "Am Anfang steht die Lektüre: Intertextualität als Kommentierungsproblem. Das Beispiel Hans Henny Jahnn." *Quelle - Text - Edition: Ergebnisse der österreichisch-deutschen Fachtagung der Arbeitsgemeinschaft für Germanistische Edition in Graz vom 28. Februar bis 3. März 1996*. Ed. Anton Schwob and Erwin Streitfeld. Tübingen: Niemeyer, 1997. 341-349.
- Buzzoni, Marina. "A Protocol for Scholarly Digital Editions? The Italian Point of View." *Digital Scholarly Editing: Theory, Practice and Future Perspectives*. Ed. Matthew Driscoll and Elena Pierazzo. Cambridge: Open Book, 2016. 59-82.
- Chen, I-Jung, and Jung-Chuan Yen. "Hypertext Annotation: Effects of Presentation Formats and Learner Proficiency on Reading Comprehension and Vocabulary Learning in Foreign Languages." *Computers & Education* 63 (2013): 416–23.
- Cullen, Charles T. "Principles of Annotation in Editing Historical Documents; or, How to Avoid Breaking the Butterfly on the Wheel of Scholarship." *Literary & Historical Editing*. Ed. George L. Vogt and John B. Jones. Vol. 46. Lawrence: U of Kansas Libs., 1981. 81–95.
- Davis, James N., and Mary A. Lyman-Hager. "Computers and L2 Reading: Student Performance, Student Attitudes." *Foreign Language Annals* 30.1 (1997): 58–72.
- Deegan, Marilyn. *Academic Book of the Future Project Report A Report to the AHRC and the British Library*. London, 2017. https://academicbookfuture.files.wordpress.com/2017/06/project-report_academic-book-of-the-future_deegan3.pdf.
- Driscoll, Matthew, and Elena Pierazzo, eds. *Digital Scholarly Editing: Theory, Practice and Future Perspectives*. Cambridge: Open Book, 2016.

- Edwards, Philip. "The Function of Commentary." *Play-Texts in Old Spelling: Papers from the Glendon Conference*. Ed. G. B. Shand and Raymond C. Shady. New York: AMS, 1984. 97–103.
- Eggert, Paul. "The Book, the E-text and the 'Work-site'." *Text Editing, Print and the Digital World*. Ed. Marilyn Deegan and Kathryn Sutherland. Farnham, England, Burlington, VT: Ashgate, 2009. 63–82.
- Eggert, Paul. "Text-encoding, Theories of the Text, and the 'Work-Site'." *Lit Linguist Computing* 20.4 (2005): 425–35.
- Ender, Markus. "Zum Mehrwert der kommentierten Online-Edition des Gesamtbriefwechsels Ludwig von Fickers." *Vom Nutzen der Editionen: Zur Bedeutung moderner Editorik für die Erforschung von Literatur- und Kulturgeschichte*. Ed. Thomas Bein. Berlin, Boston: de Gruyter, 2015. 35–46.
- Erçetin, Gülcan. "Effects of Topic Interest and Prior Knowledge on Text Recall and Annotation Use in Reading a Hypermedia Text in the L2." *ReCALL* 22.2 (2010): 228–46.
- Fish, Stanley. "Will the Humanities Save Us?" *Opinionator*, 2008. Web. https://opinionator.blogs.nytimes.com/2008/01/06/will-the-humanities-save-us/?_r=0.
- Francke, Renate. "Beziehungen zwischen Textentwicklung und Kommentierung bei den französischsprachigen Werken Heinrich Heines." *Kommentierungsverfahren und Kommentarformen: Hamburger Kolloquium der Arbeitsgemeinschaft für Germanistische Edition 4. bis 7. März 1992; autor- und problembezogene Referate*. Ed. Gunter Martens. Tübingen: Niemeyer, 1993. 80–85.
- Franzini, Greta, Melissa Terras, and Simon Mahony. "A Catalogue of Digital Editions." *Digital Scholarly Editing: Theory, Practice and Future Perspectives*. Ed. Matthew Driscoll and Elena Pierazzo. Cambridge: Open Book, 2016. 161-182.
- Friedman, Arthur. "Principles of Historical Annotation in Critical Editions of Modern Texts." *English Institute Annual 1941*. Ed. Rudolf Kirk. New York: AMS Press, 1965. 115–28.
- Frühwald, Wolfgang. "Formen und Inhalte des Kommentars wissenschaftlicher Textausgaben." *Probleme der Kommentierung: Kolloquien der Deutschen Forschungsgemeinschaft Frankfurt am Main 12. - 14. Oktober 1970 und 16. - 18. März 1972; Referate und Diskussionsbeiträge*. Ed. Wolfgang Frühwald. Bonn, Boppard: DFG, 1975. 13–32.
- Frühwald, Wolfgang. "Zusammenfassung der Diskussion 1972." *Probleme der Kommentierung: Kolloquien der Deutschen Forschungsgemeinschaft Frankfurt am Main 12. - 14. Oktober 1970 und 16. - 18. März 1972; Referate und Diskussionsbeiträge*. Ed. Wolfgang Frühwald. Bonn, Boppard: DFG, 1975. 207-215.
- Fuhrmann, Manfred. "Kommentierte Klassiker? Über die Erklärungsbedürftigkeit der klassischen deutschen Literatur." *Warum Klassiker? Ein Almanach zur Eröffnungsedition der Bibliothek deutscher Klassiker*. Ed. Gottfried Honnefelder. Frankfurt am Main: Deutscher Klassiker-Verlag, 1985. 37–57.
- Gabler, Hans Walter. "Theorizing the Digital Scholarly Edition." *Literature Compass* 7.2 (2010): 43-56. Print.
- Gair, Reavley. "In Search of 'the mustie fopperies of antiquity'." *Play-Texts in Old Spelling: Papers from the Glendon Conference*. Ed. G. B. Shand and Raymond C. Shady. New York: AMS, 1984. 123–30.
- Göpfert, Herbert G. "Kommentierung aus der Sicht des Verlages." *Probleme der Kommentierung: Kolloquien der Deutschen Forschungsgemeinschaft Frankfurt am Main 12. - 14. Oktober 1970 und 16. - 18. März 1972; Referate und Diskussionsbeiträge*. Ed. Wolfgang Frühwald. Bonn, Boppard: DFG, 1975. 91-103.

- Göttsche, Dirk. "Ausgabentypen und Ausgabenbenutzer." *Text und Edition: Positionen und Perspektiven*. Ed. Rüdiger Nutt-Kofoth, et al. Berlin: Schmidt, 2000. 37–63.
- Goulden, Lorraine D. "Approaches to the Contextual Annotation of Nineteenth-Century Historical Fiction: Constructing an Ideal Reader's Response." *English Studies in Canada (ESC)* 27.1-2 (2001): 141–63.
- Graver, Bruce E. "This Is Not a Hypertext: Scholarly Annotation and the Electronic Medium." *Profession* (1998): 172–78.
- Greenblatt, Stephen, editor, et al. *The Norton Shakespeare*. 3rd ed. New York and London: Norton, 2016.
- Groddeck, Wolfram. "Und das Wort hab' ich vergessen': Intertextualität als Herausforderung und Grenzbestimmung philologischen Kommentierens, dargestellt an einem Gedicht von Heinrich Heine." *Kommentierungsverfahren und Kommentarformen: Hamburger Kolloquium der Arbeitsgemeinschaft für Germanistische Edition 4. bis 7. März 1992; autor- und problembezogene Referate*. Ed. Gunter Martens. Tübingen: Niemeyer, 1993. 1–10.
- Groden, Michael. "Problems of Annotation in a Digital *Ulysses*." *JoyceMedia: James Joyce, Hypermedia and Textual Genetics*. Ed. Louis Armand. Prague: Litteraria Pragensia, 2004. 116–32.
- Hagen, Waltraud. "Textkonstitution und Erläuterungspraxis: Ein methodischer Zusammenhang." *Editio: internationales Jahrbuch für Editionswissenschaft* 7 (1993): 171–80.
- Hagen, Waltraud. "Von den Erläuterungen." *Vom Umgang mit Editionen: Eine Einführung in Verfahrensweisen und Methoden der Textologie*. Ed. Siegfried Scheibe. Berlin: Akademie Verlag, 1988. 205–24.
- Hammond, Adam. "How Faber's App Rescues Eliot's Masterpiece from the Waste Land of Print -." *The Toronto Review of Books* Apr. 17 (2012): n.pag. Web. 15 Apr. 2017. <http://www.torontoreviewofbooks.com/2012/04/how-faber-and-fabers-ipad-app-rescues-t-s-eliot-s-masterpiece-from-the-waste-land-of-print/>.
- Hetteche, Walter. "Die Autobiographie als Sonderfall für die Kommentierung am Beispiel von Goethes "Dichtung und Wahrheit"." *Kommentierungsverfahren und Kommentarformen: Hamburger Kolloquium der Arbeitsgemeinschaft für Germanistische Edition 4. bis 7. März 1992; autor- und problembezogene Referate*. Ed. Gunter Martens. Tübingen: Niemeyer, 1993. 141–49.
- Hillesund, Terje, and Claire Bélisle. "What Digital Remediation Does to Critical Editions and Reading Practices." *Digital Critical Editions*. Ed. Daniel Apollon, Claire Bélisle, and Philippe Régnier. Urbana, Chicaco, Springfield: University of Illinois Press, 2014. 114–54.
- Hilse, Hans-Werner, and Jochen Kothe. *Implementing Persistent Identifiers: Overview of Concepts, Guidelines and Recommendations*. London and Göttingen: CERL; Niedersächsische Staats- und Universitätsbibliothek, 2006.
- Höpker-Herberg, Elisabeth, and Hans Zeller. "Der Kommentar, ein integraler Bestandteil der historisch-kritischen Ausgabe?" *Editio: internationales Jahrbuch für Editionswissenschaft* 7 (1993): 51–61.
- Hoffmann, Dirk, Peter Jörgensen, and Otmar Foelsche. "Computer-Edition statt Buch-Edition: Notizen zu einer historisch-kritischen Edition-basierend auf dem Konzept von hypertext und hypermedia." *Editio: internationales Jahrbuch für Editionswissenschaft* 7 (1993): 211–20.
- Huitfeldt, Claus. "Markup Technology and Textual Scholarship." *Digital Critical Editions*. Ed. Daniel Apollon, Claire Bélisle, and Philippe Régnier. Urbana, Chicaco, Springfield: University of Illinois Press, 2014. 157–78.

- Jacobs, George M., Peggy Dufon, and Fong C. Hong. "L1 and L2 Vocabulary Glosses in L2 Reading Passages: Their Effectiveness for Increasing Comprehension and Vocabulary Knowledge." *Journal of Research in Reading* 17.1 (1994): 19–28. Web. <http://dx.doi.org/10.1111/j.1467-9817.1994.tb00049.x>.
- Jannidis, Fotis, Hubertus Kohle, and Malte Rehbein. *Digital Humanities: Eine Einführung*. Stuttgart: Metzler, 2017.
- Jansohn, Christa. "Annotating as Cultural Activity or, Re-constructing the Past for the Present." *Problems of Editing*. Ed. Christa Jansohn. Tübingen: Niemeyer, 1999. 211–23.
- Johnson, Samuel. "Preface to Shakespeare." *Johnson on Shakespeare: 1*. Ed. Arthur Sherbo. The Yale Edition of the Works of Samuel Johnson. Vol. 7. New Haven: Yale UP, 1968.
- Jubb, Michael. *Academic Books and Their Futures: A Report to the AHRC and the British Library*. London, 2017. https://academicbookfuture.files.wordpress.com/2017/06/academic-books-and-their-futures_jubb1.pdf.
- Jungmayr, Jörg, and Lothar Mundt. "Diskussionsprotokoll." *Probleme der Edition von Texten der Frühen Neuzeit: Beiträge zur Arbeitstagung der Kommission für die Edition von Texten der Frühen Neuzeit*. Ed. Lothar Mundt, Hans-Gert Roloff, and Ulrich Seelbach. Tübingen: Niemeyer, 1992. 159-160.
- Kachaluba, Sarah B., Jessica E. Brady, and Jessica Critten. "Developing Humanities Collections in the Digital Age: Exploring Humanities Faculty Engagement with Electronic and Print Resources." *College & Research Libraries* 75.1 (2014): 91–108.
- Kamzelak, Roland. "Eine Editionsform im Aufwind: Hypertext: Dargestellt am Beispiel der Tagebücher Harry Graf Kesslers." *Jahrbuch der Deutschen Schillergesellschaft: Internationales Organ für Neuere Deutsche Literatur (JDSGI)* 40 (1996): 487–504.
- Kanev, Kamen, and Thomas Orr. "Enhancing Paper Documents with Direct Access to Multimedia for More Intelligent Support of Reading." *2006 IEEE International Professional Communication Conference. Saragota Springs, NY, 2006*. 84–91.
- Kanzog, Klaus. "Historizität und Aktualität: Semiotische Probleme des Erläuterns und Kommentierens." *Editio: internationales Jahrbuch für Editionswissenschaft* 7 (1993) (1993): 76–84.
- Kanzog, Klaus. *Prolegomena zu einer historisch-kritischen Ausgabe der Werke Heinrich von Kleists: Theorie und Praxis einer modernen Klassikeredition*. München: Hanser, 1970.
- Karlsson, Lina, and Linda Malm. "Revolution or Remediation? A Study of Electronic Scholarly Editions on the Web." *HUMAN IT* 7.1 (2004): 1–46.
- Kelly, Aodhán. "Review of *Digital Thoreau*." *ride - A Review Journal for Digital Editions and Resources* 4 (2016): n.pag. <http://ride.i-d-e.de/issues/issue-4/digitalthoreau/?hilite=%22Kelly%22>.
- Kelly, Aodhán. "Tablet Computers for the Dissemination of Digital Scholarly Editions." *Manuscritica: revista de crítica genética* 28 (2015): 123–40.
- Knoop, Ulrich. "Der lexikalische Kommentar: Der differente Wortschatz und die Methodik der Erklärung." *Editio: Internationales Jahrbuch für Editionswissenschaft* 18 (2004): 187–212.
- Koch, Hans-Gerd. "Lassen sich Richtlinien für die Kommentierung autobiographischer Schriften aufstellen?" *Kommentierungsverfahren und Kommentarformen: Hamburger Kolloquium der Arbeitsgemeinschaft für Germanistische Edition 4. bis 7. März 1992; autor- und problembezogene Referate*. Ed. Gunter Martens. Tübingen: Niemeyer, 1993. 133–40.

- Ko, Myong H. "Glosses, Comprehension, and Strategy Use." *Reading in a Foreign Language (RFL)* 17.2 (2005): 125–43. Web. <http://nflrc.hawaii.edu/rfl/October2005/ko/ko.pdf>.
- Kolve, Verdel A., editor, and Geoffrey Chaucer. *The Canterbury Tales: Nine Tales and the General Prologue; Authoritative Text, Sources and Backgrounds, Criticism*. New York et al.: Norton, 1989.
- Koopmann, Helmut. "Für eine argumentative Edition: Probleme der Kommentierung am Beispiel der Philosophischen Schriften Schillers und Eichendorffs "Ahnung und Gegenwart"." *Edition et Manuscripts - Probleme der Prosa-Edition: Akten ... des französisch-deutschen Editorenkolloquiums Paris 1983*. Ed. Michael Werner and Winfried Woesler. Bern: Lang, 1987. 45–57.
- Kraft, Herbert. *Die Geschichtlichkeit literarischer Texte: Eine Theorie der Edition*. Bebenhausen: Rotsch, 1973.
- Lee, Hansol, and Jang H. Lee. "The Effects of Electronic Glossing Types on Foreign Language Vocabulary Learning: Different Types of Format and Glossary Information." *Asia-Pacific Edu Res* 24.4 (2015): 591–601.
- Lenders, Olaf. "Electronic Glossing – Is it Worth the Effort?" *Computer Assisted Language Learning* 21.5 (2008): 457–81. Print.
- Lomicka, Lara L. "To Gloss or Not To Gloss: An Investigation of Reading Comprehension Online." *Language Learning & Technology: A Refereed Journal for Second and Foreign Language Educators (LLT)* 1.2 (1998): 41–50. Web. <http://llt.msu.edu/vol1num2/pdf/article2.pdf>.
- Mangen, Anne. "The Digitization of Literary Reading. Contributions from Empirical Research." *Orbis Litterarum* 71.3 (2016): 240–62.
- Martens, Gunter. "Kommentar - Hilfestellung oder Bevormundung des Lesers?" *Editio: internationales Jahrbuch für Editions-wissenschaft* 7 (1993): 36–50.
- Mathijssen, Marita. "Commentary in Editions of Historical Texts: Principles and Problems Illustrated with Reference to the Edition of the Correspondence of Gerrit van de Linde." *Editio: Internationales Jahrbuch für Editions-wissenschaft* 4 (1990): 183–94.
- Mathijssen, Marita. "Die 'sieben Todsünden' des Kommentars." *Text und Edition: Positionen und Perspektiven*. Ed. Rüdiger Nutt-Kofoth, et al. Berlin: Schmidt, 2000. 245–61.
- McKay, Everett N. *UI is Communication: How to Design Intuitive, User Centered Interfaces by Focusing on Effective Communication*. Burlington: Elsevier Science, 2013.
- Merga, Margaret. *Do Adolescents Prefer Electronic Books to Paper Books?* Multidisciplinary Digital Publishing Institute, 2015. Web. 28 May 2017. <http://www.mdpi.com/2304-6775/3/4/237/htm>.
- Morgenthaler, Walter. "Der produktionsorientierte Stellenkommentar in der Computer-Edition." *Kommentierungsverfahren und Kommentarformen: Hamburger Kolloquium der Arbeitsgemeinschaft für Germanistische Edition 4. bis 7. März 1992; autor- und problembezogene Referate*. Ed. Gunter Martens. Tübingen: Niemeyer, 1993. 251–55.
- Morris, Janine. *Contexts of Digital Reading: How Genres Affect Reading Practices*. PhD Dissertation. University of Cincinnati, 2016.
- Mundt, Lothar, Hans-Gert Roloff, and Ulrich Seelbach. "Kommentar-Empfehlungen für Editionen von Texten der Frühen Neuzeit." *Probleme der Edition von Texten der Frühen Neuzeit: Beiträge zur Arbeitstagung der Kommission für die Edition von Texten der Frühen Neuzeit*. Ed. Lothar Mundt, Hans-Gert Roloff, and Ulrich Seelbach. Tübingen: Niemeyer, 1992. 161–66.

- Murphy, Francesca A. "Introduction: Theology, the Humanities, and the University." *Theology, University, Humanities: Initium Sapientiae Timor Domini*. Ed. Christoher C. Brittain and Francesca A. Murphy. Eugene, OR: Cascade Books, 2011. 1-17. Print.
- Nation, I. S. P. *Learning Vocabulary in Another Language*. 10th print. Cambridge: CUP, 2008. Print.
- Niederhoff, Burkard. "On Annotation". *Explanatory Annotations*. Eberhard Karls Universität Tübingen, 2016. Web. <http://www.annotation.es.uni-tuebingen.de/?testimonial=on-the-task-of-literary-annotation>.
- Nielsen, Jakob. *How Little Do Users Read?* Jakob Nielsen's Alertbox, 2008. Web. <https://faculty.washington.edu/farkas/TC510-Fall2011/NielsenHowLittleDoUsersReadDF.pdf>.
- Nielsen, Jakob. *How Users Read on the Web*, 1997. Web. 6 June 2017. <https://www.nngroup.com/articles/how-users-read-on-the-web/>.
- Oellers, Norbert. "Probleme der Briefkommentierung am Beispiel der Korrespondenz Schillers: Mit besonderer Berücksichtigung des Briefwechsels zwischen Schiller und Goethe." *Probleme der Brief-Edition: Kolloquium der Deutschen Forschungsgemeinschaft Schloss Tutzing am Starnberger See 8. - 11. September 1975; Referate und Diskussionsbeiträge*. Ed. Wolfgang Frühwald. Bonn - Bad Godesberg: Deutsche Forschungsgemeinschaft, 1977. 105-123.
- Ott, Wilhelm. "Elektronische Edition - Alternative oder Ergänzung?" *Philologie und Philosophie: Beiträge zur VII. Internationalen Fachtagung der Arbeitsgemeinschaft Philosophischer Editionen (12. - 14. März 1997, München)*. Ed. Hans G. Senger. Tübingen: Niemeyer, 1998. 194–202.
- Perrin, Andrew. *Book Reading 2016*. Pew Research Center, 2016. Web. 25 Aug. 2017. http://www.pewinternet.org/files/2016/08/PI_2016.09.01_Book-Reading_FINAL.pdf.
- Pfister, Manfred. "Zur Systemreferenz." *Intertextualität: Formen Funktionen, anglistische Fallstudien*. Ed. Ulrich Broich and Manfred Pfister. Tübingen: Niemeyer, 1985. 52–57.
- Pierazzo, Elena. "Modelling Digital Scholarly Editing: From Plato to Heraclitus." *Digital Scholarly Editing: Theory, Practice and Future Perspectives*. Ed. Matthew Driscoll and Elena Pierazzo. Cambridge: Open Book, 2016. 41-58.
- Pierazzo, Elena, José M. Vieira, and Patricia Searl. *Tablets Apps, or the Future of the Scholarly Editions?* Slideshare, 2011. Web. 15 Apr. 2017. <https://www.slideshare.net/ElenaPierazzo/tablets-appa-epjmvtablet-apps-or-the-future-of-digital-scholarly-editions>.
- Plachta, Bodo. *Editionswissenschaft: Eine Einführung in Methode und Praxis der Edition neuerer Texte*. 3rd rev. ed. Stuttgart: Reclam, 2013.
- Plass, Jan L., et al. "Cognitive Load in Reading a Foreign Language Text With Multimedia Aids and the Influence of Verbal and Spatial Abilities." *Computers in Human Behavior* 19.2 (2003): 221–43.
- Price, Kenneth M. "Social Scholarly Editing." *A New Companion to Digital Humanities*. Ed. Susan Schreibman, Ray Siemens, and John Unsworth. Chichester and Malden, MA: Wiley-Blackwell, 2015. 177–91.
- Radvan, Florian. "Edition, Didaktik und Nutzungsforschung: 'Lesen' und 'Benutzen' als Paradigmen des Umgangs mit Textausgaben im Deutschunterricht." *Editio: internationales Jahrbuch für Editionswissenschaft* 28 (2014): 22–49.
- Raible, Wolfgang. "Arten des Kommentierens - Arten der Sinnbildung - Arten des Verstehens: Spielarten der generischen Intertextualität." *Text und Kommentar*. Ed. Jan Assmann and Burkhard Gladigow. München: Fink, 1995. 51–73.

- Ralle, Inga H. "Maschinenlesbar – menschenlesbar." *Editio: internationales Jahrbuch für Editions-wissenschaft* 30.1 (2016): 144-156.
- Rasmussen, Krista S. G. "Reading or Using a Digital Edition? Reader Roles in Scholarly Editions." *Digital Scholarly Editing: Theory, Practice and Future Perspectives*. Ed. Matthew Driscoll and Elena Pierazzo. Cambridge: Open Book, 2016. 119-133.
- Régnier, Philippe. "Ongoing Challenges for Digital Critical Editions." *Digital Critical Editions*. Ed. Daniel Apollon, Claire Bélisle, and Philippe Régnier. Urbana, Chicago, Springfield: University of Illinois Press, 2014. 58-80.
- Revelle, Andy, et al. "Book Lovers, Technophiles, Pragmatists, and Printers: The Social and Demographic Structure of User Attitudes toward e-Books." *College & Research Libraries* 73.5 (2012): 420–29.
- Ricklefs, Ulfert. "Zur Erkenntnisfunktion des literaturwissenschaftlichen Kommentars." *Probleme der Kommentierung: Kolloquien der Deutschen Forschungsgemeinschaft Frankfurt am Main 12. - 14. Oktober 1970 und 16. - 18. März 1972; Referate und Diskussionsbeiträge*. Ed. Wolfgang Frühwald. Bonn, Boppard: DFG, 1975. 33–74. Print.
- Robinson, Peter. "Current Issues in Making Digital Editions of Medieval Texts—Or, Do Electronic Scholarly Editions Have a Future?" *Digital Medievalist* 1 (2005). Web. 25 Apr. 2017. <http://www.digitalmedievalist.org/journal/1.1/robinson/>.
- Robinson, Peter. "Electronic Editions for Everyone." *Text and Genre in Reconstruction: Effects of Digitalization on Ideas, Behaviours, Products and Institutions*. Ed. Willard McCarty. Cambridge, England: Open Book, 2010. 145–63.
- Rogers, Pat, editor, and Alexander Pope. "The Dunciad." *The Major Works*. Oxford: OUP, 2006. 411-571.
- Roloff, Hans-Gert. "Zur Geschichte des editorischen Kommentars." *Editio: internationales Jahrbuch für Editions-wissenschaft* 7 (1993) (1993): 1–17.
- Roloff, Hans-Gert. "Fragen zur Gestaltung von Kommentaren zu Textausgaben der Frühen Neuzeit." *Probleme der Edition von Texten der Frühen Neuzeit: Beiträge zur Arbeitstagung der Kommission für die Edition von Texten der Frühen Neuzeit*. Ed. Lothar Mundt, Hans-Gert Roloff, and Ulrich Seelbach. Tübingen: Niemeyer, 1992. 130–39.
- Roloff, Hans-Gert. "Probleme der Edition barocker Texte." *Jahrbuch für Internationale Germanistik* 4.2 (1972): 24–47.
- Rommel, Thomas. "Literary Studies." *A Companion to Digital Humanities*. Ed. Susan Schreibman, et al. Malden, MA: Blackwell, 2004. 88-95.
- Rosselli Del Turco, Roberto. "The Battle We Forgot to Fight: Should We Make a Case for Digital Editions?" *Digital Scholarly Editing: Theory, Practice and Future Perspectives*. Ed. Matthew Driscoll and Elena Pierazzo. Cambridge: Open Book, 2016. 219-238. DOI: <http://dx.doi.org/10.11647/OBP.0095.12>.
- Sahle, Patrick. *Digitale Editionsformen: Teil 1: Das typografische Erbe*. Norderstedt: BoD, 2013.
- Sahle, Patrick. *Digitale Editionsformen: Teil 2: Befunde, Theorien und Methodik*. Norderstedt: Book on Demand, 2013.
- Sahle, Patrick, et al. *Criteria for Reviewing Scholarly Digital Editions, version 1.1*. Institut für Dokumentologie und Editorik, 2014. Web. 15 Apr. 2017. <http://www.i-d-e.de/publikationen/weitereschriften/criteria-version-1-1/>.
- Sakar, Asim, and Gülcan Erçetin. "Effectiveness of Hypermedia Annotations for Foreign Language Reading." *Journal of Computer Assisted Learning* 21.1 (2005): 28–38.

- Sauermann, Eberhard, and Hermann Zwerschina. "Zum Kommentar der neuen historisch-kritischen Ausgabe der Werke und des Briefwechsels Georg Trakls." *Kommentierungsverfahren und Kommentarformen: Hamburger Kolloquium der Arbeitsgemeinschaft für Germanistische Edition 4. bis 7. März 1992; autor- und problembezogene Referate*. Ed. Gunter Martens. Tübingen: Niemeyer, 1993. 17–24.
- Schepers, Heinrich. "Elektronische Edition - Alternative oder Ergänzung." *Philologie und Philosophie: Beiträge zur VII. Internationalen Fachtagung der Arbeitsgemeinschaft Philosophischer Editionen (12. - 14. März 1997, München)*. Ed. Hans G. Senger. Tübingen: Niemeyer, 1998. 203-207.
- Schmidt, Jochen. "Die Kommentierung von Studienausgaben: Aufgaben und Probleme." *Probleme der Kommentierung: Kolloquien der Deutschen Forschungsgemeinschaft Frankfurt am Main 12. - 14. Oktober 1970 und 16. - 18. März 1972; Referate und Diskussionsbeiträge*. Ed. Wolfgang Frühwald. Bonn, Boppard: DFG, 1975. 75–89.
- Schreibman, Susan, et al., eds. *A Companion to Digital Humanities*. Malden, MA: Blackwell, 2004.
- Schreibman, Susan, Ray Siemens, and John Unsworth, eds. *A New Companion to Digital Humanities*. Chichester and Malden, MA: Wiley-Blackwell, 2015.
- Senger, Hans G. "Der Kommentar als hermeneutisches Problem." *Editio: internationales Jahrbuch für Editions-wissenschaft* 7 (1993): 62–75.
- Shillingsburg, Peter. "How Literary Works Exist: Convenient Scholarly Editions." *DHQ* 3.3 (2009).
- Shillingsburg, Peter L. "Negotiating Conflicting Aims in Scholarly Editing: The Problem of Editorial Intentions." *Problems of Editing*. Ed. Christa Jansohn. Tübingen: Niemeyer, 1999. 1–8.
- Shillingsburg, Peter L. "Principles for Electronic Archives, Scholarly Editions, and Tutorials." *The Literary Text in the Digital Age*. Ed. Richard J. Finneran. Ann Arbor: U of Michigan P, 1996. 23-35.
- Shrimplin, Aaron K., et al. "Contradictions and Consensus - Clusters of Opinions on E-books." *College & Research Libraries* 72.2 (2011): 181–90.
- Small, Ian. "Annotating 'Hard' Nineteenth Century Novels." *Essays in Criticism* 36.4 (1986): 281–93.
- Small, Ian. "The Editor as Annotator as Ideal Reader." *The Theory and Practice of Text-Editing: Essays in Honour of James T. Boulton*. Ed. Ian Small and James T. Boulton. Cambridge: CUP, 1991. 186–208.
- Steding, Sören. *Computer-Based Scholarly Editions: Context - Concept - Creation - Clientele*. Berlin: Logos, 2002. Print.
- Straub, Richard E. "Gedruckt oder elektronisch? Zu neuen Formen von Textausgaben." *Alte und neue Philologie*. Ed. Martin-Dietrich Glessgen and Franz Lebsanft. Tübingen: Niemeyer, 1997. 227–34.
- Stroud, Matthew D. "The Closest Reading: Creating Annotated Online Editions." *Approaches to Teaching Early Modern Spanish Drama*. Ed. Laura R. Bass and Margaret R. Greer. New York: MLA, 2006. 214–19.
- Stüben, Jens. "Interpretation statt Kommentar: Ferdinand von Saar und Marie von Ebner-Eschenbach: 'Kritische Texte und Deutungen'." *Kommentierungsverfahren und Kommentarformen: Hamburger Kolloquium der Arbeitsgemeinschaft für Germanistische Edition 4. bis 7. März 1992; autor- und problembezogene Referate*. Ed. Gunter Martens. Tübingen: Niemeyer, 1993. 99-107.
- Sutherland, Kathryn, and Elena Pierazzo. "The Author's Hand: From Page to Screen." *Collaborative Research in the Digital Humanities: A Volume in Honor of Harold*

- Short, on the Occasion of his 65th Birthday and his Retirement, September 2010.* Ed. Marilyn Deegan and Willard McCarty. Farnham: Ashgate, 2012. 191–212.
- Sutherland, Kathryn. “Being Critical: Paper-based Editing and the Digital Environment.” *Text Editing, Print and the Digital World*. Ed. Marilyn Deegan and Kathryn Sutherland. Farnham, England, Burlington, VT: Ashgate, 2009. 13–25.
- Tanner, Julee. “Digital vs. Print: Reading Comprehension and the Future of the Book.” *SLIS Student Research Journal* 4.2 (2014): 1-12.
- Teichert, Dieter. “Zwischen Vorurteilen und Missverständnissen - Zur Situation der Geisteswissenschaften.” *Bildung und Wissensgesellschaft*. Ed. Klaus Kempter, Peter Meusburger, and Rose Boenicke. Berlin: Springer, 2006. 127–50. Print.
- Teplitskiy, Misha, Grace Lu, and Eamon Duede. “Amplifying the Impact of Open Access: Wikipedia and the Diffusion of Science.” *Journal of the Association for Information Science and Technology* 68.9 (2017): 2116–27. <http://dx.doi.org/10.1002/asi.23687>.
- Tolva, John. *The Heresy of Hypertext*, 1995. Web. 25 Apr. 2017. <http://www.ascentstage.com/papers/heresy.html>.
- Veit, Joachim. “Es bleibt nichts, wie es war – Wechselwirkungen zwischen digitalen und ‚analogen‘ Editionen.” *Editio: internationales Jahrbuch für Editions wissenschaft* 24 (2010): 37–52.
- Visconti, Amanda. *‘How can you love a work, if you don't know it?’: Critical Code and Design Toward Participatory Digital Editions*. PhD Dissertation Whitepaper. University of Maryland, 2015. Web. <http://dr.amandavisconti.com/>.
- Visconti, Amanda. *‘Songs of Innocence and of Experience’: Amateur Users and Digital Texts*. MA thesis. University of Michigan, 2010. Web. 9 Apr. <http://hdl.handle.net/2027.42/71380>.
- Wall, Stephen. “Annotated English Novels?” *Essays in Criticism* 32.1 (1982): 1–8.
- Warwick, Claire, et al. “The Master Builders: LAIRAH Research on Good Practice in the Construction of Digital Humanities Projects.” *Literary and Linguistic Computing* 23.3 (2008): 383–96. Web. 1 Apr. 2017. <http://discovery.ucl.ac.uk/13810/1/13810.pdf>.
- Warwick, Claire. “Print Scholarship and Digital Resources.” *A Companion to Digital Humanities*. Ed. Susan Schreibman, et al. Malden, MA: Blackwell, 2004. 366-382.
- Warwick, Claire. “Studying Users in Digital Humanities.” *Digital Humanities in Practice*. Ed. Claire Warwick, Melissa Terras, and Julianne Nyhan. London: Facet Publishing, 2012. 1-22.
- Wells, David A. “Approaches to the Commentary Form in Medieval German Studies: With a Comparison of Some Recent Classical Scholarship.” *Editio: internationales Jahrbuch für Editions wissenschaft* 7 (1993): 109-134.
- Willett, Perry. “Electronic Texts: Audiences and Purposes.” *A Companion to Digital Humanities*. Ed. Susan Schreibman, et al. Malden, MA: Blackwell, 2004. 240-253.
- Witkowski, Georg. *Textkritik und Editionstechnik neuerer Schriftwerke: Ein methodologischer Versuch*. Leipzig: Haessel, 1924.
- Woesler, Winfried. “Zu den Aufgaben des heutigen Kommentars.” *Editio: internationales Jahrbuch für Editions wissenschaft* 7 (1993): 18–35.
- Zhang, Michael. “Google’s Translate App Can Now Use Your Camera to Translate the World in Real Time.” *PetaPixel*. 14 Jan. 2015. Web. <https://petapixel.com/2015/01/14/googles-translate-app-can-now-use-camera-translate-world-real-time/>.

Appendix 1: Screenshots of the Projects Reviewed in Chapter 3

The screenshots are ordered alphabetically according to the shortened title of the websites. For full bibliographic information see.

Ada

Link to the website

Indication of an annotation: underlined

Presentation of an annotation: same page, below the primary text

ADAonline text copyright motifs images bibliography acknowledgments related contact search

VLADIMIR NABOKOV
ADA
OR ARDOR:
A FAMILY CHRONICLE

To Vera

Primary text

List of motifs

Annotations

of personal style and conduct, of his father, Demon. MOTIF: Ada.

Ardor: "Ardor" indicates the Russian rather than American pronunciation of Ada's name (demonstrated by Marina at 39.16-17: "She pronounced it the Russian way with two deep, dark 'a's, making rather like 'ardor") in a manner that echoes the guide to the Spanish rather than American pronunciation of "Lolita" in Humbert's first paragraph in that novel ("the tip of the tongue taking a trip of t down the palate to tap, at three, on the teeth").

In Dickens's *Bleak House* (see previous n.), whose Ada's name is of course pronounced in the usual English way, the same motif is used: "Ada had been telling me [Esther Summerson, the name only that morning of her hopes that Richard might exhaust his ardour in the Chancery suit by being so very earnest in it."

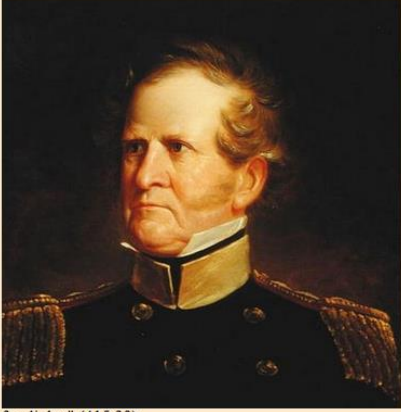
ADAonline text copyright motifs images bibliography acknowledgments related contact search

Ada or Ardor: A Family Chronicle
 Part 1, Chapter 2 (view annotations)

2

Marina's affair with Demon Veen started on his, her, and Daniel Veen's birthday, January 5, 1868, when she was twenty-four and both Veens thirty.

As an actress, she had none of the breath-taking quality that makes the skill of mimicry seem, at least while the show lasts, worth even more than the price of such footlights as insomnia, fancy, arrogant art; yet on that particular night, with soft snow falling beyond the plush and the paint, *la Durmanska* (who paid the great Scott, her impresario, seven thousand gold dollars a week for publicity alone, plus a bonny bonus for every engagement) had been from the start of the trashy enghemeron (an



10.06: such footlights: "footlights" is a conventional synecdoche for the stage as a profession. Cf. "Turn off the footlights" (415.29)

10.08-13: *la Durmanska* . . . so dreamy, so lovely, so stirring: *la Durmanska*, Marina's stage name (from her surname, "Durmanov"), at least in "the great Scott's" publicity: reviewers still refer to her "Durmanova" (427.22). She is playing the lead role, more or less Tatiana (though apparently misnamed "Lara": see 13.22-23 and n.) in an adaptation or misadaptation of Pushkin's *Eugene Onegin* (see 10.11-12.20 and n).

10.09: the great Scott, her impresario . . . seven thousand gold dollars: apart from another reference to him (as Scotty) on the next page (11.24), nothing is heard of him again. A bizarre personification of "great Scott," as a mild exclamation of surprise, apparently originating in honor of General Winfield Scott (1786-1866), the commanding general of the United States Army from 1841 to 1861, and a candidate for the US presidency in 1852. In 1848, in gratitude for his Mexican campaign of 1847, Congress ordered a gold medal to be struck in his honor.

Back to 3.4: Indicating Annotations
 Back to 3.4: Presenting Annotations

Bartleby

[Link to the website](#)

Indication of an annotation: underlined

Presentation of an annotation: same page, right margin

Now my original business—that of a conveyancer and title hunter, and drawer-up of recondite documents of all sorts—was considerably increased by receiving the master’s office. There was now great work for scribes. Not only must I push the clerks already with me, but I must have additional help. In answer to my advertisement, a motionless young man one morning, stood upon my office threshold, the door being open, for it was summer. I can see that figure now—pallidly neat, pitifully respectable, incurably forlorn! It was Bartleby.

After a few words touching his qualifications, I engaged him, glad to have among my corps of copyists a man of so singularly sedate an aspect, which I thought might operate beneficially upon the flighty temper of Turkey, and the fiery one of Nippers.

I should have stated before that ground glass folding-doors divided my premises into two parts, one of which was occupied by my scribes, the other by myself. According to my humor I threw open these doors, or closed them. I resolved to assign Bartleby a corner by the folding-doors, but on my

► **Chaos in the workplace** commentary comedy

The office is in a precarious state at the moment Bartleby arrives. Nippers and Turkey are both only semifunctional as employees, but happen to alternate moods, “a good natural arrangement under the circumstances.” Ginger Nut is being used as a gofer, not a copyist. And the demands on the lawyer’s business have just been substantially increased. Bartleby adds to the *disorder—and the comedy—not by frenzied activity, but*

A suggestive hint commentary

This is the only indication in the story that the narrator knows anything about Bartleby’s background. Unfortunately, if he does, he doesn’t reveal it to us.

Showing only annotations pertaining to

x comedy and x commentary.

► **Chaos in the workplace** commentary comedy

The office is in a precarious state at the moment Bartleby arrives. Nippers and Turkey are both only semifunctional as employees, but happen to alternate moods, “a good natural arrangement under the circumstances.” Ginger Nut is being used as a gofer, not a copyist. And the demands on the lawyer’s business have just been substantially increased. Bartleby adds to the *disorder—and the comedy—not by frenzied activity, but*

A suggestive hint commentary

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Showing only annotations pertaining to

x comedy and x commentary.

Close-up of the same annotations and the filter window

[Back to 3.4: Indicating Annotations](#)

[Back to 3.4: Presenting Annotations](#)

BookDoors

Link to the website

Indication of an annotation: underlined

Presentation of an annotation: (1) same page, pop-up window (2) new window

The screenshot displays the BookDoors interface for Jane Austen's *Pride and Prejudice*, Chapter 1. The main text area shows a passage with several underlined annotations. A pop-up window titled "Sir William and Lady Lucas" is open over the text, providing a detailed explanation of the social hierarchy and the significance of the title "Sir". The sidebar on the right contains navigation options such as "Table Of Contents", "Quick Links", and "Content Search".

Jane Austen, *Pride and Prejudice*: Ch. 1

« Previous 1 2 3 4 5 6 7 Next »

reset

My dear, you flatter me. I certainly have had my share of beauty, but I do not pretend to be anything extraordinary now. When a woman has five grown-up daughters, she ought to give over thinking of her own beauty."

"In such cases, a woman has not often much beauty to think of."

"But, my dear, you must indeed go and see Mr. Bingley when he comes into the neighbourhood."

"It is more than I engage for, I assure you."

"But consider your daughters. Only think what an establishment it would be for one of them. Sir William and Lady Lucas^h are determined to go, merely on that account, for in general, you know, they visit no new country."

Sir William and Lady Lucas

Custom & Law

The "Sir" as opposed to "Lord" indicates that Sir William is a baronet or knight, and in this case it is an honorary title that dies with him.

He was knighted as a reward for a speech he gave when mayor fulsomely praising the King, George III. Barons were part of the peerage, and baronets (the equivalent of business class on a plane) were the next rank below and outside the peerage, to be followed by knights, the lowest titled rank.

open in new window

to visit him if you do not."

be very glad to see you; and I will send a few whichever he chooses of the girls; though I am the others; and I am sure she is not half so you are always giving her the preference."

and he; "they are all silly and ignorant" like other rs."

a way? You take delight in vexing me. You have ves. They are my old friends. I have heard you t."

"Ah, you do not know what I suffer."

"But I hope you will get over it, and live to see many young men of four thousand a year come into the neighbourhood."

Table Of Contents

[+] *Pride and Prejudice*

Quick Links

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Sir William and Lady Lucas

Category: [Custom & Law](#) | Type: [Historical](#) | Title: [Pride and Prejudice \(in Context\)](#) | Author: [Jane Austen](#) | Ch: [Chapter 1](#)

The "Sir" as opposed to "Lord" indicates that Sir William is a baronet or knight, and in this case it is an honorary title that dies with him.

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The same annotation opened in a new window

[Back to 3.4: Indicating Annotations](#)

[Back to 3.4: Presenting Annotations](#)

Brome

[Link to the website](#)

Indication of an annotation: superscript sign

Presentation of an annotation: same page, pop-up window

The screenshot shows the 'Richard Brome online' website. At the top left is a portrait of Richard Brome. The title 'Richard Brome online' is prominently displayed. On the right, it lists the affiliation: 'Royal Holloway, University of London' and 'Humanities Research Institute, University of Sheffield', funded by the 'Arts & Humanities Research Council'. A navigation bar includes links for 'Plays', 'Gallery', 'Bibliography', 'Glossary', 'Essays', 'Stage Histories', 'About the Publication', and 'User Guide'. Below this is a search bar with a dropdown menu set to 'Entire Text' and a search button. The main content area is titled 'The City Wit' by E. Schafer. A navigation menu shows 'Introduction', 'Text', 'Stage Directions', and 'Notes and Glosses'. A secondary menu includes 'Videos', 'Octavo Text', 'Modern Text', 'Both Texts', and 'Stage Histories'. The text 'You are viewing: Modern Text Act 1 | Act 2 | Act 3 | Act 4 | Act 5' is visible. The main text includes a line: '3 *Crasy* Set forth that table, Jeremy.' followed by a stage direction: 'A table set forth with empty money-bags, bills, bonds and books of accounts, etc.' An annotation box is overlaid on the text, containing a red 'x' icon and the following text: 'The stage directions which open 1.1. are quite prescriptive and could be described as slightly fussy from a theatrical point of view (for a discussion of these stage directions as directed at readers see Textual Introduction). The objective in the workshop exploration was to investigate whether the clutter that is asked for (books of accounts, money bags, bills, bonds etc.) really adds something to the scene. Does there have to be a certain bulkiness to

This is a close-up of the annotation from the previous screenshot. It shows the text 'The City Wit' and 'Edited by E. Schafer' at the top. The main text is '3 *Crasy* Set forth that table, Jeremy.' followed by the stage direction 'A table set forth with empty money-bags, bills, bonds and books of accounts, etc.' The annotation box is overlaid on the text, containing a red 'x' icon and the following text: 'The stage directions which open 1.1. are quite prescriptive and could be described as slightly fussy from a theatrical point of view (for a discussion of these stage directions as directed at readers see Textual Introduction). The objective in the workshop exploration was to investigate whether the clutter that is asked for (books of accounts, money bags, bills, bonds etc.) really adds something to the scene. Does there have to be a certain bulkiness to

Close-up of the same annotation

[Back to 3.4: Indicating Annotations](#)

[Back to 3.4: Presenting Annotations](#)

Genius

Link to the website

Indication of an annotation: highlighted

Presentation of an annotation: same page, right margin

The screenshot shows the Genius website interface. On the left, the poem "Should I compare thee to a Summer's day?" is displayed with several lines highlighted in yellow. Below the poem are social media sharing icons for Facebook, Twitter, and a share icon with the number 27. There are also buttons for "Follow" and "Embed". Below the poem, there is a section titled "MORE ON GENIUS" with a video thumbnail and the text "A Comprehensive Timeline Of Taylor Swift & Kanye West's Relationship". On the right side, there is a blue-bordered annotation box. The annotation title is "Genius Annotation 5 contributors". The text of the annotation discusses the meaning of the highlighted line, comparing it to the weather in California. Below the annotation text is an "Edit" button, a "Upvote +15" button, and a "Share" button. At the bottom of the annotation box, there is a search bar with the text "Suggest an improvement to earn IQ" and a user comment from "Seaeffess" (58,084 points, a year ago) who marked the annotation as "missing something" and suggested including something about the cliché nature of the comparison.

This is a close-up view of the annotation box from the previous screenshot. It shows the text of the annotation: "Should I compare you to a fine summer day? No? Too bad, I will anyway, but it will be mostly contrast In England, perfect summer days are quite rare. Therefore this line has a great deal of meaning since beautiful days are hard to come by. If he was from California writing this it would have less meaning since it is nice almost every day there. He is questioning if a summer's day is what he can compare his subject's beauty to." Below the text is an "Edit" button, a "Upvote +15" button, and a "Share" button.

Close-up of the same annotation

[Back to 3.4: Indicating Annotations](#)

[Back to 3.4: Presenting Annotations](#)

Entretenida

Link to the website

Indication of an annotation: superscript number

Presentation of an annotation: (1) same page, pop-up window (2) new window, list

Lleváisos la media nata ⁶⁰	
deste ¹⁰⁰	'Media Annata. La mitad de los frutos, ò emolumentos que en un año rinde
dais e ¹⁰⁰	qualquiera Dignidad, Prebenda, ò Beneficio
sin ha ¹⁰⁰	Eclesiástico: y tambien se extiende à la mitad del valór y emolumentos de qualquier
Gozá ¹⁰⁰	empléo honorífico y lucróso temporal, que en España paga al Rey aquel à quien se le
y de l ¹⁰⁰	confiere.' Autoridades I, p. 300b. The 'benefice' in this instance is clearly whatever
y os r ¹⁰⁰	the servants are able to thieve from the household! As Schevill and Bonilla point out
y del ¹⁰⁰	(Schevill/Bonilla n. 11), Cervantes uses the term <i>media nata</i> in a similar sense in
Hacé ¹⁰⁵	Rinconete y Cortadillo ; 'y pidieron a Monipodio que desde luego les concediese y
burla ¹⁰⁵	permitiese gozar de las inmunidades de su cofradía, porque su presencia agradable y su
de ac ¹⁰⁵	buena plática lo merecía todo. Él respondió, que por dalles contento a todos, desde aquel
que v ¹⁰⁵	punto se las concedía, y advirtiéndoles que las estimasen en mucho, porque eran no
Qué p ¹¹⁰	pagar media nata del primer hurto que hiciesen.' Novelas ed. López p. 189
con la ¹¹⁰	
¡Corazón, triste te pones.	
La sangre se me revuelve	

Pop-up annotation

060. 'Media Annata. La mitad de los frutos, ò emolumentos que en un año rinde qualquiera Dignidad, Prebenda, ò Beneficio Eclesiástico: y tambien se extiende à la mitad del valór y emolumentos de qualquier empléo honorífico y lucróso temporal, que en España paga al Rey aquel à quien se le confiere.' Autoridades I, p. 300b. The 'benefice' in this instance is clearly whatever the servants are able to thieve from the household! As Schevill and Bonilla point out (Schevill/Bonilla n. 11), Cervantes uses the term <i>media nata</i> in a similar sense in Rinconete y Cortadillo ; 'y pidieron a Monipodio que desde luego les concediese y permitiese gozar de las inmunidades de su cofradía, porque su presencia agradable y su buena plática lo merecía todo. Él respondió, que por dalles contento a todos, desde aquel punto se las concedía, y advirtiéndoles que las estimasen en mucho, porque eran no pagar media nata del primer hurto que hiciesen.' Novelas ed. López p. 189
061. There is a pun here, which centres on the fact that <i>botín</i> can mean both 'boot' and 'booty'
062. 'Chinela. Calzáo que cubre el medio pie delantero, que se diferencia del zapáo en que no tiene taíón. Usase para anda en casa por lo ligéro y acomodado, y para tener calientes los pies.' Autoridades II, p. 320b
063. 'Arandela. Se llamó assi un espécie de cuello y puños que usaban las mugéres, los quales le abrían con plancha, y por ser costosos se vedaron por Pragmática. Debieron llamarse assi, porque formaban un embúdo.' Autoridades I, p. 369b
064. Sevilla and Rey suggest that <i>lunas de plata</i> might be a decorative addition to shoes, and the context would seem to support this view. Sevilla/Rey p. 25, n. 25
065. There is play on words that involves the following definitions of <i>puntos</i> and <i>suertes</i> as gaming terms: ' Puntos. En los dados ò náipes son los números que se señalan de valór à cada carta ò superficie del dado. [...] En algunos juegos se llaman los tantos que se van ganando, hasta llegar al número señalado.' Autoridades V, p. 435a. ' Suerte. Como contrapuesto al azár en los dados, y otros juegos, vale los puntos con que se gana, ò acierta, teniendo parte de acaso: como echar senas, ò quinas en los dados, ò sacar el naipe que se necessita, etc.' Autoridades VI, p. 178a. In the translation I have substituted my own wordplay involving terms associated with card games.
066. In order to appreciate the humour and theatricality of the verbal sparring between Cristina and Ocaña one must imagine Cristina holding the oats on a sieve in front of her chest. Ocaña's '¿Blen medida?' (well-measured) and Cristina's riposte 'y bien colmada' (well-rounded) refer to the amplexness and shapeliness of her bosom, hence Cristina's outrage when Ocaña enquires whether Quifones measured it.
067. 'Retablo. Comúnmente se toma por en que está pintada alguna historia de devoción, y por estar en la tabla y madera se dixo retablo. Algunos estrangeres suelen traer una caja de titeres, que representa alguna historia sagrada, y de allí les dieron el nombre de retablos.' Covarrubias p. 907b, l. 55. The most celebrated example of Cervantes's use of this term is in the title to the <i>entremés El retablo de las maravillas</i> , which is included in the same volume as <i>La entretendida</i> .
068. 'Kien kalla, otorga.' Correas p. 403a
069. 'Toldo. El cielo redondo que se pone encima del asiento de algún principe [...]. Quando alguna persona va con más pompa y autoridad de la que le pertenece dezimos que lleva mucho toldo.' Covarrubias p. 965b, l. 33
070. Ocaña is referring to the fact that, when accompanying their master, the footman would walk in front and the page behind.
071. 'Andallo, mi vida, andallo, ke sois pollo i vais para gallo.' Correas p. 58b

List of all annotations opened in a new tab

[Back to 3.4: Indicating Annotations](#)

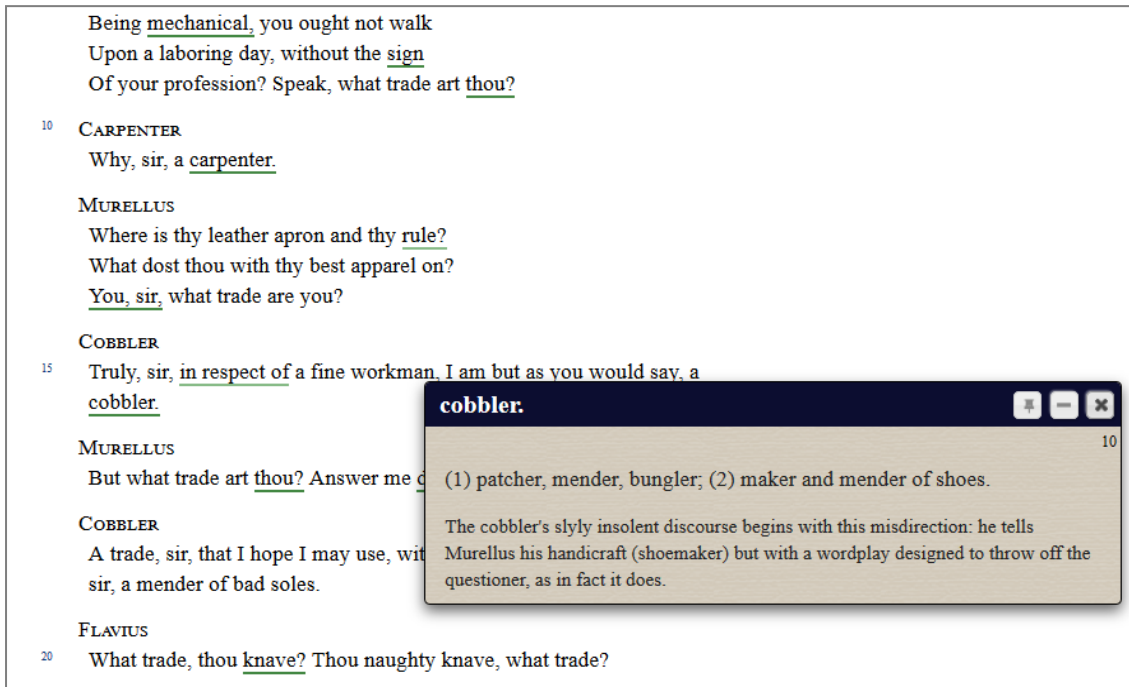
[Back to 3.4: Presenting Annotations](#)

ISE

[Link to the website](#)

Indication of an annotation: underlined

Presentation of an annotation: same page, pop-up window



Being mechanical, you ought not walk
Upon a laboring day, without the sign
Of your profession? Speak, what trade art thou?

10 CARPENTER
Why, sir, a carpenter.

MURELLUS
Where is thy leather apron and thy rule?
What dost thou with thy best apparel on?
You, sir, what trade are you?

COBBLER
15 Truly, sir, in respect of a fine workman, I am but as you would say, a
cobbler.

MURELLUS
But what trade art thou? Answer me c

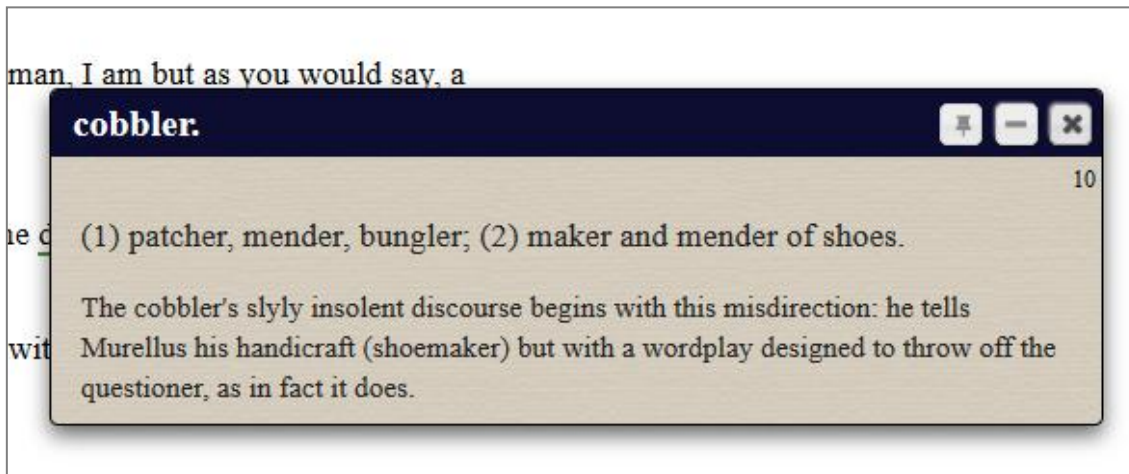
COBBLER
A trade, sir, that I hope I may use, with
sir, a mender of bad soles.

FLAVIUS
20 What trade, thou knave? Thou naughty knave, what trade?

cobbler. 10

(1) patcher, mender, bungler; (2) maker and mender of shoes.

The cobbler's slyly insolent discourse begins with this misdirection: he tells Murellus his handicraft (shoemaker) but with a wordplay designed to throw off the questioner, as in fact it does.



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Close-up of the same annotation. The smaller font is used for Level 2.

[Back to 3.4: Indicating Annotations](#)

[Back to 3.4: Presenting Annotations](#)

Milton

Link to the website

Indication of an annotation: underlined

Presentation of an annotation: same page, right margin

<p><u>Of Sion, or of Ormus, Gardimopia</u></p> <p>That Shepherd, who first taught the chosen Seed, In the Beginning how the Heav'ns and Earth Rose out of Chaos: Or if Sion Hill [10] Delight thee more, and Siloa's Brook that flow'd Fast by the Oracle of God; I thence Invoke thy aid to my adventrous Song, That with no middle flight intends to soar Above th' Aonian Mount, while it pursues [15] Things unattempted yet in Prose or Rhime. And chiefly Thou O Spirit, that dost prefer Before all Temples th' upright heart and pure, Instruct me, for Thou know'st; Thou from the first Wast present, and with mighty wings outspread [20] Dove-like satst brooding on the vast Abyss And mad'st it pregnant: What in me is dark Illumin, what is low raise and support; That to the highth of this great Argument I may assert Eternal Providence, [25] And justify the wayes of God to men.</p> <p>Say first, for Heav'n hides nothing from thy view Nor the deep Tract of Hell, say first what cause Mov'd our Grand Parents in that happy State</p>	<hr/> <p><i>Before all Temples.</i> Milton alludes to Torquato Tasso's suggestion that his muse has her seat in heaven rather than on the earthly (and pagan) Mount Helicon (Jerusalem Delivered 1.2), but Milton further insists that the Christian muse's proper seat is the "upright heart" or Paradise within. (Thanks to Nícolás Machado for this note.)</p> <hr/>
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Close-up of the same annotation

[Back to 3.4: Indicating Annotations](#)

[Back to 3.4: Presenting Annotations](#)

Thoreau

[Link to the website](#)

Indication of an annotation: no sign in the text, numbers at the right margin

Presentation of an annotation: same page, right margin

g in Register Take a Tour

ECONOMY 1-14

1 1 When I wrote the following pages, or rather the bulk of them, I lived alone, in the woods, a mile from any neighbor, in a house which I had built myself, on the shore of Walden Pond, in Concord, Massachusetts, and earned my living by the labor of my hands only. I lived there two years and two months. At present I am a sojourner in civilized life again. 9

2 2 I should not obtrude my affairs so much on the notice of my readers if very particular inquiries had not been made by my townsmen concerning my mode of life, which some would call impertinent, though they do not appear to me at all impertinent, but, considering the circumstances, very natural and pertinent. Some have asked what I got to 8

FILTER COMMENTS BY GROUP

- 3 COMMENTS ON THE WHOLE PAGE
- 9 COMMENTS ON PARAGRAPH 1
- 8 COMMENTS ON PARAGRAPH 2
- 8 COMMENTS ON PARAGRAPH 3
- 8 COMMENTS ON PARAGRAPH 4
- 9 COMMENTS ON PARAGRAPH 5
- 4 COMMENTS ON PARAGRAPH 6
- 5 COMMENTS ON PARAGRAPH 7

Collapsed annotations

g in Register Take a Tour

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9 COMMENTS ON PARAGRAPH 1

WALTER HARDING (1917-1996) LIKE (2)
January 21, 2014 at 5:02 pm

POSTED IN: PANEL OF EXPERTS

[I wrote the following pages]

Morse (150), choosing these opening lines as a notable example, says, "In truth W is a self-dramatizing, self-advertising and deeply duplicitous book that seeks to mask its excessive ambitions behind a facade of commonsense and practicality." W is filled with wordplay of all sorts. Lane (1970) analyzes at length the puns in the first three paragraphs of the book. Donald Ross (1971) provides a checklist of the wordplay T uses.

CREATE AN ACCOUNT TO REPLY

WALTER HARDING (1917-1996) LIKE (0)
January 21, 2014 at 5:16 pm

POSTED IN: PANEL OF EXPERTS

[rather the bulk of them]

Expanded annotations and yellow highlight (circled in blue) for the annotated item in the text

9 COMMENTS ON PARAGRAPH 1

WALTER HARDING (1917-1996) LIKE (2)
January 21, 2014 at 5:02 pm

POSTED IN: PANEL OF EXPERTS

[I wrote the following pages]

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Close-up of the same annotation

[Back to 3.4: Indicating Annotations](#)

[Back to 3.4: Presenting Annotations](#)

Twain

[Link to the website](#)

Indication of an annotation: brackets in the text

Presentation of an annotation: same page, right margin

Home > Writings > Adventures of Huckleberry Finn : an electronic text > Chapter I

(Citations: On Off) Interactive View | Reading View | Print View
Prev | Section | Next

Well, [Judge Thatcher], he took it and put it out at interest, and it fetched us a dollar a day apiece, all the year round—more than a body could tell what to do with. The [widow] [Douglas] she took me for her son, [and allowed she would sivilize me;] but it was rough living in the house all the time, considering how dismal regular and decent the widow was in all her ways; and so when I couldn't stand it no longer, I lit out. I got into my old rags, and my [sugar hogshead] again, and was free [and satisfied.] But Tom [Sawyer] he hunted me up and said he was going to [page 2] start a band of robbers, and I might join if I would go back to the widow and be respectable. So I went back.

[cite](#)

The widow she cried over me, and called me a poor lost lamb, and she called me [a lot of] other names, too, but she never meant no harm by it. She put me in them new clothes again, and I couldn't do nothing but sweat and sweat, and feel all cramped up. Well, then, the old thing commenced again. The widow rung a bell for supper, and you had to come to time. When you got to the table you

Explanatory Notes: Expand | Collapse
Textual Commentary

1.22 Judge Thatcher] Father of Tom Sawyer's sweetheart, Becky Thatcher, he was described in chapter 4 of *Tom Sawyer* as “a fine, portly, middle-aged gentleman with iron-gray hair” and as “a prodigious personage—no less a one than the county judge” (*ATS*, 32–33).

[cite](#)

2 *illustration]* Kemble used a single model, for Huck and “for every character in the story,” a neighbor, sixteen-year-old Courtland P. Morris, hired at four dollars a week. Morris, Kemble wrote, “tallied with my idea of Huck. He was a bit tall for the ideal boy, but I could iam him down a few pegs

My Citations

(Citations: On Off) Interactive View | Reading View | Print View
Prev | Section | Next

Explanatory Notes: Expand | Collapse
Textual Commentary

1.22 Judge Thatcher] Father of Tom Sawyer's sweetheart, Becky Thatcher, he was described in chapter 4 of *Tom Sawyer* as “a fine, portly, middle-aged gentleman with iron-gray hair” and as “a prodigious personage—no less a one than the county judge” (*ATS*, 32–33).

[cite](#)

Close-up of the same annotation

[Back to 3.4: Indicating Annotations](#)

[Back to 3.4: Presenting Annotations](#)

Ulysses

Link to the website

Indication of an annotation: highlighted

Presentation of an annotation: same page, right margin

The screenshot shows the website 'Ulysses' with a navigation bar at the top containing 'Read Now', 'About', 'Credits', 'Contact', 'Sign Up!', and 'Log In'. Below the navigation bar, there is a breadcrumb trail '< Telemachus' and a page indicator '4 >'. The main content area displays a passage from 'Ulysses' with several words highlighted in yellow. The passage is as follows:

Stately, plump Buck Mulligan came from the stairhead, bearing a bowl of lather on which a mirror and a razor lay crossed. A yellow dressinggown, ungirdled, was sustained gently behind him by the mild morning air. He held the bowl aloft and intoned:

— *Introibo ad altare Dei.*

Halted, he peered down the dark winding stairs and called up coarsely :
— Come up, Kinch. Come up, you fearful Jesuit.

Solemnly he came forward and mounted the round gunrest. He faced about and blessed gravely thrice the tower, the surrounding country and the awaking mountains. Then, catching sight of Stephen Dedalus, he bent towards him and made rapid crosses in the air, gargling in his throat and shaking his head. Stephen Dedalus, displeased and sleepy, leaned his arms on the top of the staircase and looked coldly at the shaking gurgling face that blessed him, equine in its length, and at the light untonsured hair, grained and hued like pale oak.

Buck Mulligan peeped an instant under the mirror and then covered the bowl smartly.
— Back to barracks, he said sternly.
He added in a preacher's tone:

The right-hand sidebar, titled 'Filter Displayed Highlights', contains the following elements:

- Annotation: Filter by Annotation...
- User: Filter by User..
- Tag: Filter by Tag..
- Sort by: Top-Rated (dropdown menu)
- Author: Amanda Visconti
- Date: January 29, 2015
- link
- Quote: —
- Text: Spoken lines are indicated with an em dash
- All tags style

This is a close-up of the annotation sidebar from the screenshot above. It shows the following details:

- Author: Amanda Visconti
- Date: January 29, 2015
- link
- Quote: —
- Text: Spoken lines are indicated with an em dash
- All tags style

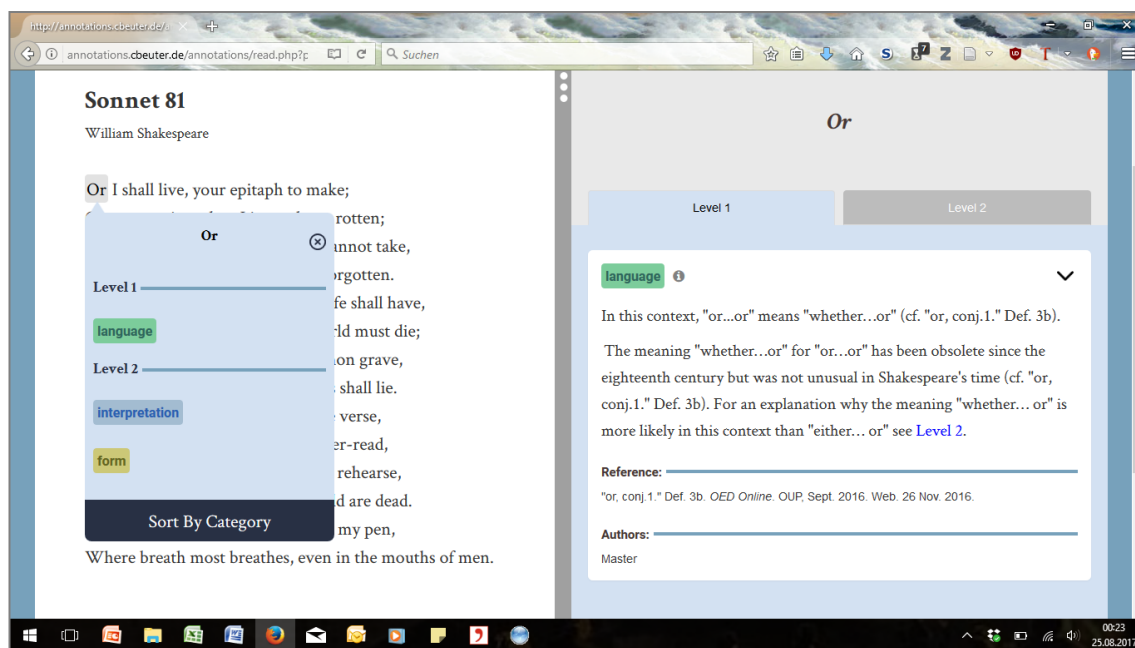
Close-up of the same annotation

[Back to 3.4: Indicating Annotations](#)

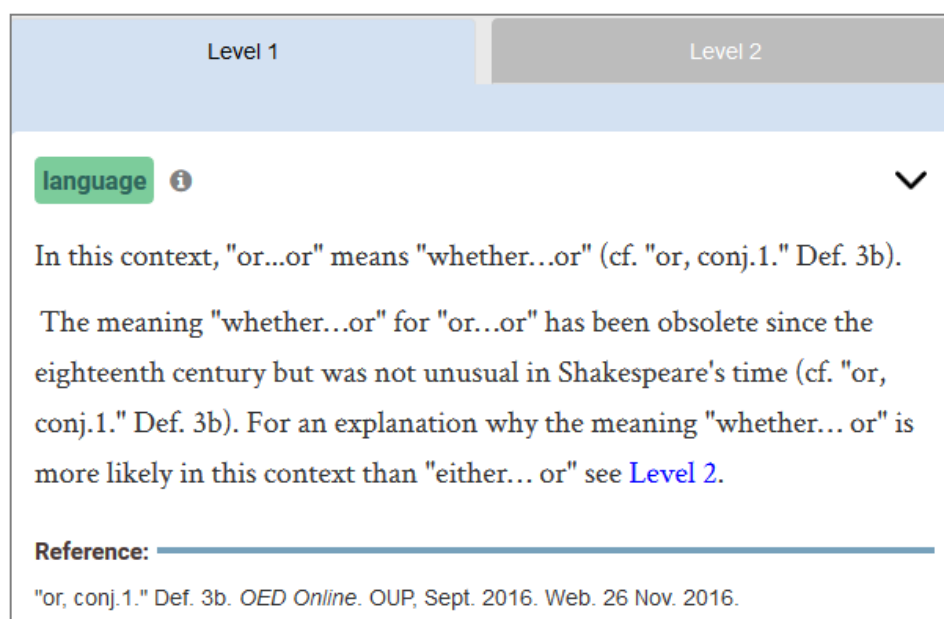
[Back to 3.4: Presenting Annotations](#)

Appendix 2: Screenshots of an Annotation Using TEASys

These screenshots show an annotation for the beginning of Shakespeare's sonnet 81 ("Or I shall live your epitaph to make; / Or you survive when I in earth am rotten"). The note is anchored at the first "Or". In a revised version of the website, it will be possible to anchor a note at more than one place. In this case, the annotation would be attached to both instances of "Or" in these lines, and the L2 'form' part could become a separate annotation.



The whole screen: showing the pop-up window and the L1 'language' annotation



This L1 'language' part of the note is meant to answer readers' most pressing question, namely what the expression "Or... Or" means in this context. It also contains a hyperlink to another part of the same annotation.

interpretation



The first two lines of sonnet 81 can be paraphrased as 'it does not matter whether I live longer than you or you live longer than me'.

The meaning "either...or" for "or...or", which is common today, was also used in Shakespeare's time, for example in his *Comedy of Errors* 1.1.136 (cf. "or, conj.1." Def. 3a). However, this reading is unlikely in the context of sonnet 81. It would mean that the speaker is stating the obvious, namely that either he will die before the addressee or the addressee before him. Thus, the meaning 'no matter who of us dies first, your memory will survive' ("whether...or") is much more probable than 'either I die first or you, but your memory will survive' ("either...or").

Reference:

"or, conj.1." Def. 3a. OED Online. OUP, Sept. 2016. Web. 26 Nov. 2016.

This L2 'interpretation' part of the annotation builds directly on L1 'language'. It explains how the meaning of the two words that was suggested in L1 affects the meaning of the entire two lines. This part also justifies why the reading presented on L1 is the most likely in this context.

form



The "Or" makes the beginning of sonnet 81 seem very sudden and one could describe it as an 'in medias res' ("into the middle of things") start (cf. Hardison and Hornsby 707). This is a recurring feature of Shakespeare's sonnets and creates the impression that "the reader is being taken immediately into the ongoing thought process of the poetic voice" (Edmondson and Wells 58). In the case of sonnet 81, one might also be induced to believe that one is overhearing a conversation rather than a thought, which could be connected to the overall impression of sonnet 81 as spoken rather than written/read silently.

Reference:

Edmondson, Paul, and Stanley Wells. *Shakespeare's Sonnets*. Oxford: OUP, 2004. Print.
Hardison, O.B., and Roger A. Hornsby. "in medias res." *The Princeton Encyclopedia of Poetry and Poetics*. Ed. Roland Greene et al. 4th ed. Princeton, NJ: Princeton UP, 2012. 707-708. Print.

Once the first two parts of the note will have been attached to both cases of "Or", this part could become a separate note only anchored at the first "Or": Its first sentence would become the L1 'form' part, the second sentence would become L2 'form', and the third sentence would be L2 'interpretation'. This example shows how useful it is to be able to revise annotations

Appendix 3: Survey Questions Used for Chapter 5

What degree are you studying for?						
[Please choose] ▾						
What is/are your subject(s)?						
<input type="text"/>						
What is your mother tongue?						
<input type="checkbox"/> German						
<input type="checkbox"/> Other: <input type="text"/>						
How often do you read literary texts in English?						
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Daily	2-3 times/week	Once a week	Once a month	Once a year	Never	
Have you ever taken part in a lecture course/seminar focusing on Shakespeare/Shakespeare's time?						
<input type="radio"/> Yes						
<input type="radio"/> No						
How often do you read texts by Shakespeare (in English)?						
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Daily	2-3 times/week	Once a week	Once a month	Once a year	Never	
How much do you usually understand when you read Shakespeare (in English)?						
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
nearly everything	a lot	some parts	not much	nearly nothing	I never read Shakespeare in English.	

Which kinds of texts do you prefer to read in print, which on electronic devices?

You can skip the questions for the kinds of texts you do not read at all.

	in print	in either medium	on an electronic device
I prefer reading short stories...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I prefer reading short poems...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I prefer reading novels...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I prefer reading plays...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I prefer reading long poems...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

For which reading purposes do you prefer print, for which purposes do you prefer electronic devices?

Please note: this question only refers to your preferences regarding the **medium**, not to your reading preferences (e.g. close reading vs. skimming) in general.

	in print	in either medium	on electronic devices
I prefer reading literary texts for seminars and term papers...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I prefer reading literary texts for leisure...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I prefer skimming literary texts (i.e. quick and superficial reading)...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I prefer to read literary texts closely and thoroughly...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

On the next pages, you will be asked to answer questions about annotations.

Annotations

- are also often called "**explanatory notes**".
- are brief explanations that help readers **understand a text better**.
- can be attached to words, phrases, and even longer passages.
- usually appear as **footnotes or endnotes** in print.

Annotations can contain different kinds of information.					
Please rate how useful you find each kind of information named below.					
	Very helpful			Not at all helpful	
Explanations for uncommon or old words	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Information about poetic devices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Information about repetitions within the text (e.g. motifs)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Information about references or allusions to other texts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Information about references or allusions to a historical event, person, concept etc.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Suggestions for interpreting a passage (and information on how other scholars have interpreted it)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Information about different versions of the text (e.g. when a passage was omitted in a later version of the text)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What is your personal opinion about annotations?					
All of these questions refer to annotations for literary texts.					
	Strongly agree			Strongly disagree	
I find annotations helpful.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Annotations distract me from the text; I find them annoying.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would rather buy a slightly more expensive annotated edition than a cheaper unannotated edition.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I read annotations because I feel that I would misunderstand/not understand the text without them.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I read annotations because I fear that I would miss important information otherwise.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Annotations often do not answer the questions I have when reading a text.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I decide to read annotations whenever I get the impression that their content might interest me, even if I feel that I would understand the text without them.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I read annotations only because I feel obliged to, not because I do not understand the text.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Have you ever read an annotated text (and its annotations) online?

- Yes.
- No.

If the answer was “yes”:

On which website(s) have you read the annotated text(s)?

You do not have to provide a link or an exact name for the website(s).

If you do not remember, please write “I don’t remember” in the field below.

In comparison to printed annotations, these online annotations were...

more user-friendly less user-friendly

more trustworthy less trustworthy

more helpful for understanding the text less helpful for understanding the text

less subjective more subjective

longer shorter

If the answer was “no”:

Why not?

Multiple answers possible

- Because I did not know that annotated online texts exist. I would like to read one.
- Because I did not know that annotated online texts exist. I am not interested in reading one.
- Because I am not interested in reading literary texts online.
- Because I am not interested in reading annotations online.
- Because I prefer the layout of print annotations.
- Because I think online annotations are not as trustworthy as print annotations.
- Other:

Please read this sonnet by Shakespeare:

Sonnet 81

Or I shall live your epitaph to make;
Or you survive, when I in earth am rotten; 2
From hence your memory death cannot take,
Although in me each part will be forgotten. 4
Your name from hence immortal life shall have,
Though I, once gone, to all the world must die; 6
The earth can yield me but a common grave,
When you entombed in men's eyes shall lie. 8
Your monument shall be my gentle verse,
Which eyes not yet created shall o'er-read, 10
And tongues to be your being shall rehearse,
When all the breathers of this world are dead. 12
You still shall live, such virtue hath my pen,
Where breath most breathes, even in the mouths of men. 14

Sonnet 81

Or I shall live, your epitaph to make;
Or you survive, when I in earth am rotten; 2
From hence your memory death cannot take,
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men. 14

If you could choose only one word/line to be explained in an annotation, which would it be?

Tip: just copy the word/line right from the sonnet.

Now, take a look at **Sheet 1**.

It is a copy from a print edition of Shakespeare's sonnets.

Can you find an annotation for the word/line "epitaph", which you marked as requiring annotation the most?

- Yes (For your personal use, please **mark this word/line on Sheet 1**)
- No

If the answer was "no":

Please choose a word/line that is annotated in the print edition and tell us which word/line you have chosen:

For your personal use, please also mark this word/line on **Sheet 1**

On **Sheet 1**, please **read the annotation** for the word/line you have just marked.

Please **reflect on the following questions**:

Is the annotation...

- helpful (for understanding the poem better)?
- reliable/academic?
- easy to understand?
- too long/too short?
- delimiting interpretation (i.e. discouraging you from interpreting the poem yourself)?

Please use **Sheet 2** to note your answers down. (You will need your notes for a later question.)

After you have taken your notes, please click "**next**".

On the internet, there are six websites that provide annotations for Shakespeare's sonnet.

On the next page, you find a **link** that randomly leads you to one of these websites.

Step 1: After having read all the instructions, open the link below in a **new tab** (use right-click and choose "Link in neuem Tab öffnen").

Step 2: On the **website**, take a look at the **annotation for the same word/line** you have just read on **Sheet 1**.

(i.e. if you have just read the annotation for "entombed" in the print edition, you should also read the annotation for "entombed" on the website)

Step 3: You should use **Sheet 3** for your notes. (You will need them for a later question.)

Step 4: After having taken notes, close the annotating website, return to this **questionnaire**, and click "**next**".

Link (open it in a new tab):<http://annotations.cbeuter.de/neu/read.php?pid=4>

Please answer a few question about your experience with the annotations you saw.

Answer these questions for both the print edition and the digital edition. Please use the notes you took on Sheet 2 and Sheet 3.

The annotation I read...

	Strongly agree			Strongly disagree			Don't know.
helped me understand the text better (print)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
helped me understand the text better (digital)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
was academic and reliable (print)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
was academic and reliable (digital)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
was too short (print)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
was too short (digital)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
was too long (print)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
was too long (digital)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
was easy to understand (print)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
was easy to understand (digital)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
offered different possibilities of interpreting the text (print)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
offered different possibilities of interpreting the text (digital)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
delimited interpretation, i.e. discouraged me from interpreting the text myself (print)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
delimited interpretation, i.e. discouraged me from interpreting the text myself (digital)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
would be helpful when reading for a seminar or term paper (print)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
would be helpful when reading for a seminar or term paper (digital)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
would be helpful when reading for leisure (print)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
would be helpful when reading for leisure (digital)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Do you have any comments concerning the annotations you read?

Print annotation:

Digital annotation:

Questions regarding the website

You were part of the group that had a link to the website *Annotating Literature*, which is currently being developed by the University of Bochum.

	Strongly agree			Strongly disagree	Don't know
I found the website more helpful than the printed edition.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The website is user-friendly.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The layout of the website is appropriate and does not distract from the text or annotations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It was obvious where I could find the information I needed.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt obliged to read all the parts of an annotation (i.e. all levels and categories).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would read a longer annotated text (e.g. a novel) on this website.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would not read a longer text on this website, but I would search the annotations for helpful material.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would like to read a printed book, but simultaneously look at these online annotations on my smartphone.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would like being able to print annotations or to save them as pdf.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would like to take personal notes on this website that no other user can see.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would like to contribute to this website by adding and revising annotations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It would be useful if the annotations also included images and videos.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Are there any other features/functions that you would add to this website?

Yes:

No.

How could the annotations on this website be improved (content, layout etc.)?

Have you ever heard about the *Annotating Literature* project in Tübingen?

Multiple answers possible

- No.
- Yes, I have seen the advertisement for the peer groups.
- Yes, I am part of an *Annotating Literature* peer group.
- Yes, I have taken part in an *Annotating Literature* seminar taught by Prof. Bauer and/or PD Dr. Zirker.