THE VALUE OF PLURALITY IN 'THE NETWORK WITH A THOUSAND ENTRANCES'[1]

RAY SIEMENS, ALYSSA ARBUCKLE, LINDSEY SEATTER, RANDA EL KHATIB, and TRACEY EL HAJJ, with the ETCL Research Group

Abstract   *This contribution reflects on the value of plurality in the 'network with a thousand entrances' suggested by McCarty (http://goo.gl/H3HAfs), and others, in association with approaching time-honoured annotative and commentary practices of much-engaged texts. The question is how this approach aligns with tensions, today, surrounding the multiplicity of endeavour associated with modeling practices of annotation by practitioners of the digital humanities. Our work, hence, surveys annotative practice across its reflection in contemporary praxis, from the MIT annotation studio whitepaper (http://goo.gl/8NBdnf) through the work of the Open Annotation Collaboration (http://www.openannotation.org), and manifest in multiple tools facilitating annotation across the web up to and including widespread application in social knowledge creation suites like Wikipedia https://en.wikipedia.org/wiki/Web annotation)*

Keywords: annotative practices, semantic web practices, reader-reader interaction, annotation tools, social annotation, folksonomy, content modelling, process modelling

Annotation is one of the important 'primitive' activities that scholars in many disciplines employ when they pursue a topic of interest [Unsworth 2000]. As more and more of the scholarly process has been enhanced by,

and in some cases migrated to, digital formats the need to create tools that permit scholars to enjoy the same broad range of primitive activities that they do with physical formats has become evident. This is especially true of the annotation primitive.[2]

A long-standing and central scholarly practice, annotation is a function of sustained intellectual engagement. Historically, this engagement has occurred with material information via inscription, varying over time with available technologies and practices sustained by them. With reference to one particular type of annotative activity, commentary in electronic form, Willard McCarty encourages scholars to consider the intricate complexity we engage and embody through this practice. In his 'A Network with a Thousand Entrances: Commentary in an Electronic Age?' he asserts that annotation 'fundamentally *refers* but not necessarily or in any simple way *defers* to its object. It directs our attention elsewhere, but as governor of our thinking brings attention back. It leads by following, filtering, shaping.'[3] Further meditating on recent work that models this activity using electronic tools, McCarty argues that computational methods significantly increase or improve '[t]his dynamic, performative aspect of commentary'[4], regardless of criticism that computational approaches can be too constructivist and can reduce the human complexity of annotation activities to sheer mechanical processes.[5] Annotation, in this view, provides a network with a thousand entrances to individual works, as well as from those individual works to entire, interconnected fields of inquiry—ultimately both bringing the reader toward the object of their contemplation, by facilitating and representing a deeper engagement with the material, and taking them away from the material at hand by pointing to the larger world of ideas, themes, contexts, interactions, and personalities that inform the work. Understanding the complexity and plurality that annotation facilitates is difficult, and modeling it computationally, with an attention to such functionality, may be even more challenging. In this context, our contribution surveys a number of exemplary instances of annotation as a foundation to understanding contemporary work on annotative practices, including from a perspective of methodological research, as well as from a perspective of prototyping or tool building. We consider these perspectives further in the accompanying annotated bibliography.

EXEMPLARY INSTANCES OF ANNOTATIVE PRACTICE

In approaching the conceptual and pragmatic challenges of annotation via practice, the past provides fertile ground for consideration. A typical touchstone in such instances is found in the early biblical commentaries. Witness, for example, work originating in the scriptorium of Peter Lombard, Bishop of Paris, which illustrates complex, interwoven annotative commentary associated with the Epistles (see Fig. 1). In a method that also serves as a recognisable foundation
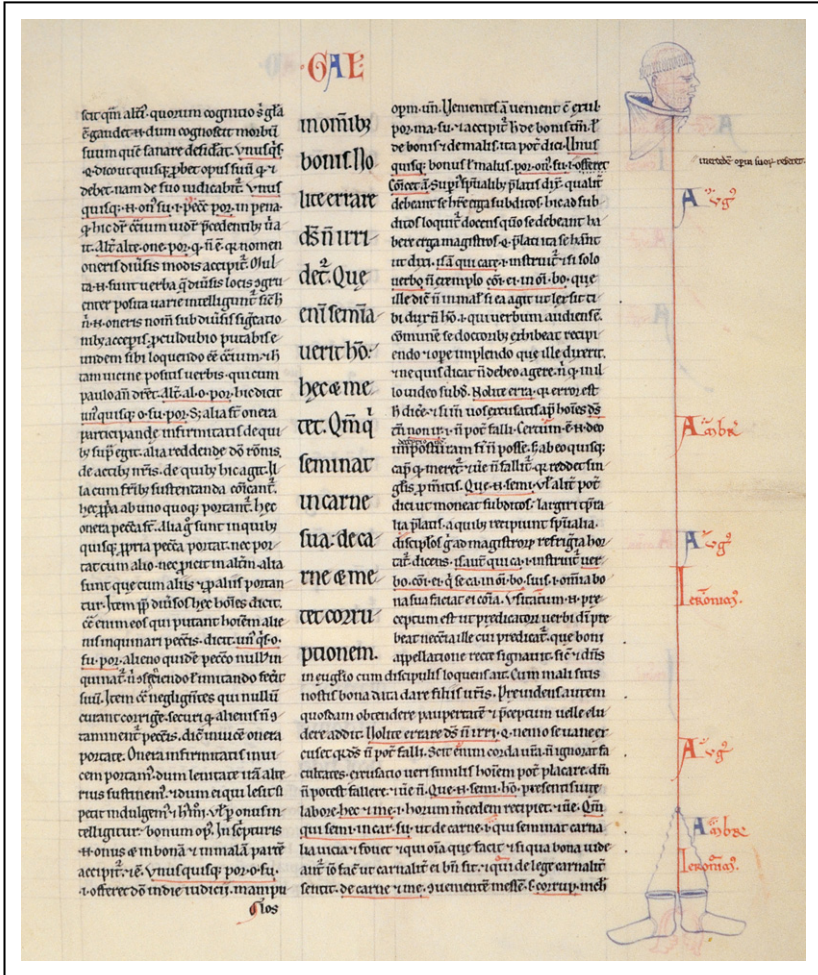
Figure 1. 26r, ms. lat.14267 (c.1300); source: Bibliothèque nationale de France (Paris).

for certain types of contemporary scholarly editions, extensive commentary is arranged to surround one small section of one epistle. The formal considerations of the page mimic and augment, visually, aspects of the intellectual engagement by those whose expertise is rendered in the centre section of the work. Notable, too, is the visual assistant to aid in navigation of the annotative material; this composite authorial form is provided by a line that runs almost the full vertical length of the inscribed page's right-hand side, from head to feet of the human
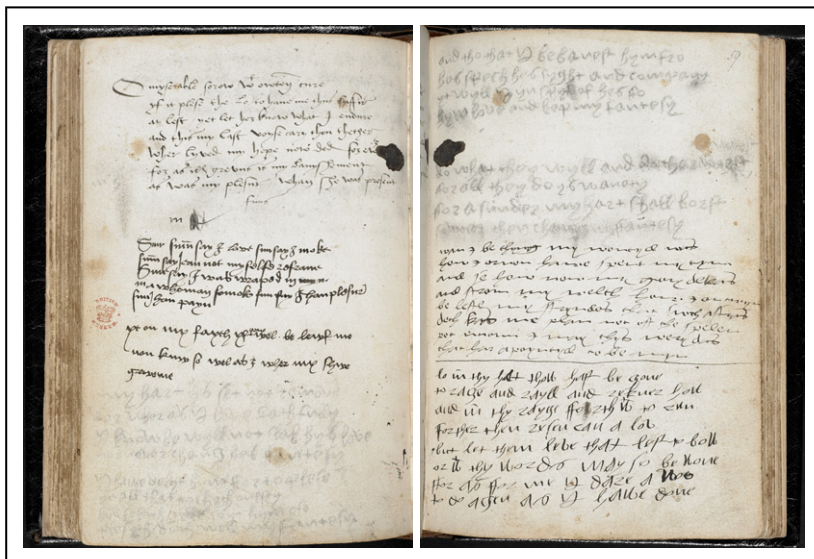
Figure 2. ff.58v–59r, add.ms. 17492 (Devonshire Manuscript); source: British Library Board (London).

representation. At times, this device has indications relating original text to the intellectual originators of the commentary's annotation (Jerome, Augustine, Ambrose) that provides the context for the reader's consideration. The aligned visual image both identifies originators of those providing this external context, and suggests the composite, corporal nature of commentary in relation to the central author's body of work. The visualised body represents the composite sum of its constituent, intellectual parts. As this example demonstrates, tradition has deemed that ancillary material is essential to reach a comprehensive understanding of the original text.

More organic and less immediately evident practices are found in coterie manuscript culture, another common example in consideration of earlier annotation practices. Fig. 2 presents two facing pages (58v–59r) in the *Devonshire Manuscript* (BL Add Ms 17492)[6], a verse miscellany from the *c.*1530 notable for being the earliest sustained example in the English tradition of men and women writing together in a community. The *Devonshire Manuscript* is also noteworthy in terms of contemporary popular currency; scholars have referred to this manuscript's analogic function as 'the Facebook of the Tudor court'[7]. Across the several non-professional hands and varied written media evident on the page, we readily witness poems arranged with some instances of typical marginal-style notation. With deeper, academically informed attention we might notice that the poetry itself is a mix of original and transcribed

extant lyrics. Moreover, we might note that the writing is at times deliberately adapted poetic utterance, arranged by the manuscript's several compilers to be conversant with one another in an ongoing epistolary-style conversation among the manuscript's contributors, with considerable topical reference in the poetic interplay. Some of these discursive events are more obvious, such as in 'my hart ys set not to remove'[8], a poem in Margaret Douglas's hand that references her unauthorised engagement with Thomas Howard. Others appear to reference specific events pertinent to the activities of the coterie that produced the manuscript's contents, and appear vague to us today; for example, 'Sum summ say I love sum say I moke'[9] contains a poetic riddle, hinging on the location in which the speaker's shoe 'grew', or revealed, him. Marginalia and poetic utterance (transcribed and original) take us to and from other points in the manuscript, to other extant and deliberately variant poetic versions, and into the personal, political lives of the prominent figures documented by the manuscript.

Beyond touchstones in manuscript culture, one might look to the markings and textual engagements of beat poet Allen Ginsberg's annotated copy of modernist T. S. Eliot's *The Waste Land* (see Fig. 3). Ginsberg's annotations can also be considered alongside with TouchPress's *The WasteLand for iPad* (2012), and its facsimile images of T. S. Eliot's *The Waste Land* from the 1971 edition, marked up with Eliot, Valerie Eliot, and Ezra Pound's annotations (see Fig. 4).

Further examples of such practices include editions built on Bob Stein and the Institute for the Future of the Book's SocialBook platform, like Stephen Duncombe's edition of Thomas More's *Utopia* (see Fig. 5). This modeling of annotative practices has an onscreen rendering that reflects the page and typical page-based processes familiarly. At the same time, due to its annotation format, which is akin to many social media platforms, the material is open to both an individual reader and to the masses.

Another notable example is Amanda Visconti's project *Infinite Ulysses,* where readers can annotate passages from James Joyce's infamous modernist novel *Ulysses* (1922), as well as read through other users' annotations, and customise annotation filters (see Fig. 6).

Needless to say, although the media have changed radically from twelfth century scriptoria to twenty-first century digital editions, the impulse of engagement remains the same. Whether scribbled on parchment or encoded online, readers annotate their reading material in order to deepen their experience with the work at hand, as well as to situate it in a larger context.

CURRENT ENGAGEMENT, PARTICULARLY IN THE DIGITAL HUMANITIES

Such impulses are shared today by those who intersect computational method and humanistic endeavor to the end of reproducing annotation electronically.
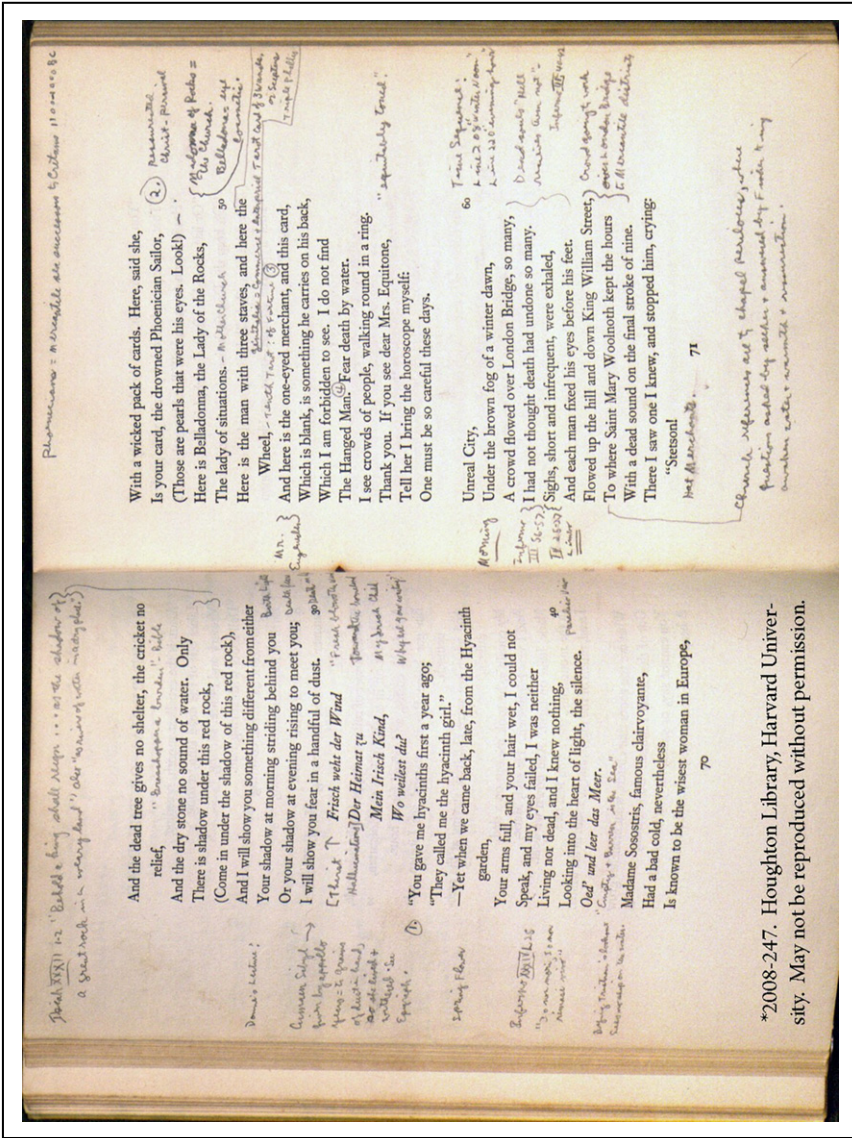
Figure 3. Allen Ginsberg's copy of T. S. Eliot's *The Waste Land* (AC95.G4351.Zz936e); sources: Houghton Library, Harvard University, and Ginsberg Estate.
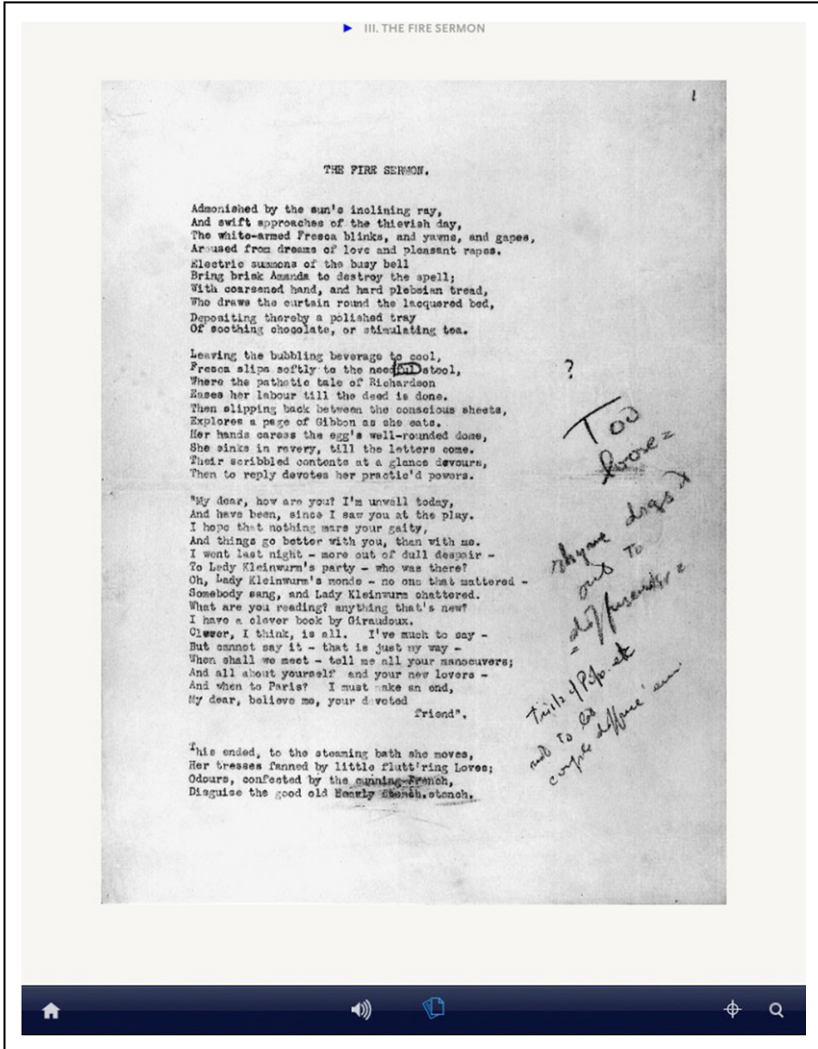
Figure 4. 'The Fire Sermon' from *The Waste Land for iPad*; source: TouchPress.

Exemplary instances abound, beginning with Wikipedia, which can be considered as an annotative meta-example (see, for example, entries on 'annotation' [https://en.wikipedia.org/wiki/Annotation] and 'web annotation' [https://en.wikipedia.org/wiki/Web_annotation]), as well as the work of the MIT Annotation Studio, which provides a tool to encourage students 'to become more aware of the "act of reading" by making reading and annotating a

General

All | comments and underlines | everyone | inline

The commentary on religion here is something we still experience today; throughout time we have attempted to reinterpret the Bible and other religious works to fit our current society, rather than fit our current society around those...

defining precepts: a general rule intended to regulate behavior or thought.

Plato was a philosopher in Classical Greece. He was also a mathematician, student of Socrates, writer of philosophical dialogues, and founder of the Academy in Athens. He lived from 427 B.C. to 347 B.C.

Defining a Term: Contrived- deliberately created rather than arising naturally or spontaneously

Define: Absurd- wildly unreasonable, illogical, or inappropriate.

Uncouth: (of a person or their appearance or behavior) lacking good manners, refinement, or grace.

Who is "He?"

The writer is trying to tell us that the world around us isn't going to satisfy the way Christ wanted us to live our life. Things will happen that He didn't us to go through.

Identifying a confusing term; a particular principle, position, or policy taught or...

◀ Next page with comments and underlines ⬩

either propose such things as Plato has contrived in his 'Commonwealth,' or as the Utopians practice in theirs, though they might seem better, as certainly they are, yet they are so different from our establishment, which is *The institutions of the Utopians.*

founded on property (there being no such thing among them), that I could not expect that it would have any effect on them. But such discourses as mine, which only call past evils to mind and give warning of what may follow, leave nothing in them that is so absurd that they may not be used at any time, for they can only be unpleasant to those who are resolved to run headlong the contrary way; and if we must let alone everything as absurd or extravagant--which, by reason of the wicked lives of many, may seem uncouth--we must, even among Christians, give over pressing the greatest part of those things that Christ hath taught us, though He has commanded us not to conceal them, but to proclaim on the housetops that which He taught in secret.[18] The greatest parts of His precepts are more opposite to the lives of the men of this age than any part of my discourse has been, but the preachers seem to have learned that craft to which you advise me: for they, observing that the world would not willingly suit their lives to the rules that Christ has given, have fitted His doctrine, as if it had been a leaden rule,

46%

Conversations

Community
Inline: 2517
General: 18

+ New group

Figure 5. The Social Book edition of Thomas More's *Utopia*; source: *Open Utopia* / Stephen Duncombe.

Figure 6. *Infinite Ulysses* edition of James Joyce's *Ulysses*; source: Modernist Versions Project / Patrick Belk, Matthew Kochis, and Amanda Visconti.

transparent and shared process'[10]. One might also look to the foundational strides of the Open Annotation Collaboration (http://www.openannotation.org) and its subsequent working groups, which ultimately provide a data model, vocabulary, and protocol for work in the area, as well as the subsequent W3C proposed recommendations (January 2017). In this context, the contribution of the *digital humanist* is to understand the ways in which knowledge is represented, analysed, and disseminated, underpinned by processes of *content modeling* (how we digitise and represent our data in digital form) and *process modeling* (how we engage that data). There is a considerable body of work in this vein, quickly growing and evolving.

With the aim of providing navigational entry points to the abundance of recent and current work on annotation, we present briefly here—and at greater length in this piece's aligned annotated bibliography—a survey of engagements in the area from the perspective of the digital humanities. Much of this work explores what McCarty deems the dynamic and performative elements of annotation enabled by computing[11], and it is often informed by the richness of annotation's long history. In applied and experimental computational contexts, explorations arise from the perspective of simulating, modeling, and prototyping in a larger framework of facilitating evolving user needs. This process itself requires critical inquiry, as well as clear definition and categorization of annotative practices.[12] Some initiatives adopt a survey-and-report format by scanning

models, tools, and relevant, critical research in the field.[13] Others explore areas of possible application, including collaborative annotation and folksonomy tagging approaches, as seen in collaborative digital scholarly editing.[14] Key high-level issues include annotation organization, management, and retrieval; creating optimal knowledge management support systems; shifting to the semantic web as a space for creating, organizing, and retrieving annotations; data interoperability and data appropriation; and the creation and maintenance of flexible annotation systems that support a variety of formats.[15]

The understanding of *textual* annotation exemplified in Stein's SocialBook remains a mainstay in thinking on this topic and is manifest in both 'thought experiment' prototypes and production tools that model, extend, and sometimes radically augment the practices of the past. Research that situates annotation in the field of digital humanities focuses on defining annotation practices and theories[16], as well as specifying frameworks for commentary across media (e.g., paper and screen), or engaging broadly with annotation platforms that better support user interaction with objects and with each other. There is consensus that the evolution of scholarship brought about by interactive Web 2.0 practices has shifted emphasis from reader-content interaction to reader-reader interaction (often rendered as 'learner-content' to 'learner-learner'), and that this behavioural shift necessitates a redesign of tools[17]. Many digital humanists acknowledge that annotation practices carry forth a benefit for learning, archiving, clarifying, sharing, and expanding; at the same time, however, there is a struggle to provide full, proper facility to these ends, particularly because of limitations in current Web architecture.[18] In spite of such limitations, a number of tools bridge the gap between design and user needs, including *AnnotatEd, CommentPress*, and *Hypothes.is*.[19] Such tools, along with alternative platforms that experiment with gamification and annotation, allow for interactive reading and support user engagement with resources in a customizable way, treating documents as mutable objects that can be tagged, highlighted, and underlined.[20] Tools such as *Annotary* and *Annotea* facilitate bookmarking and the organization of documents, thereby making searching and browsing through data easier and more efficient. Many of these tools are free to use, as the majority are online and open access, which allows users to share their own data and have access to each other's annotations, in turn promoting collaboration.

As in the past, text is not the only form of data annotated currently. Today, there are a variety of approaches to annotation across textual and non-textual media, ranging from manual and semi-automated techniques to completely automated practices (*Axiom*; *Greenshot*; *Madcow*). Resources and tools to this end consist of open access annotation tools and other praxis-oriented academic work (*Annotea*; *NewRadial*). Working across structured or unstructured data, this work has a strong emphasis on the use of controlled ontologies, collaborative practices, and the dissemination, exchange, and

reuse of annotations across media types. Some practitioners are concerned with interface design for media annotation, in particular. This includes the development of appropriate and up-to-date interfaces and navigation techniques that reflect evolving annotation practices[21], as well as accommodating the needs of various types of users in environments ranging from the classroom to interactive museum annotation systems.[22] Other issues of note concern the relationship between collaborative practices and tool/data-type interoperability, specifically in research that highlights and proposes solutions to the limitations of current tools' support of annotation across different mediums and formats.[23] With regard to non-textual media, the retrieval of annotation information holds considerable challenges related to data type. More recently, the dramatic increase in the volume of data has required address, and semantic web practices appear to be a viable solution to this challenge, as they have the potential to interlink data (and thereby annotations) more dynamically than standard web practices currently can.[24]

In current work, there is significant emphasis on the critical thinking and research practices of group dynamics and social interaction in the space of digital annotation.[25] Researchers interrogate how Web 2.0 practices have changed the way information is stored, accessed, and interacted with[26], and note that the movement toward participatory practice has resulted in a gap between our theoretical understanding and how it manifests in prototypes and tools[27]. In exploring various functionalities of annotation software that assist in building community and facilitating virtual collaboration (as is facilitated through *Google Drive*), themes of community engagement, creation, sharing, comprehension, and learning outside the classroom arise. Case studies such as *Diigo* (a web annotation plug-in), *He Do the Police in Different Voices* (a digital annotation project), and *NewRadial* (an Implementing New Knowledge Environments [INKE] annotation and networking tool) illustrate that social annotation practices can take place across a variety of platforms intended for a multitude of scholarly or personal endeavours.

In terms of underlying bibliographic reference, metadata, and tagging/encoding concerns, one finds many approaches and tools that facilitate tagging and annotation of documents and websites, and the creation of various types of metadata (*Bibsonomy*; *Qiqqa*). Resources range from selected case studies that discuss and evaluate the features of the tools at hand[28], and publication-based investigation of bibliographic referencing issues, including domain ontologies, bookmarking, automatic annotation, and search queries.[29] Michael G. Noll and Christoph Meinel further identify three types of metadata that affect social bookmarking: social annotations, anchor text, and search queries.[30] As a practice, bibliographic metadata annotation is growing alongside the proliferation of digital work in the humanities, especially with the increasing interest in digitizing books—yielding varied and new types of data and

metadata that need to be annotated and organised for utility. It also extends to include the bibliographic tagging of websites and web pages (*Delicious*; *Flickr*; *Pinterest*) and points to available tools that allow users to semantically annotate resources (*CAT*; *Pundit*). Electronic tagging is considered a central practice since folksonomies have a remarkable effect on user/web interaction. Relational data and automatic linking are also seeing increased consideration as a means for information extraction and processing.[31]

CONCLUSION: AN ENTRY INTO CURRENT RESEARCH IN ANNOTATION

Current work to understand and engage in annotation offers its own network with a thousand entrances. Annotation research is now typified by a broadening of pertinent perspectives and approaches, as well as a rapidly growing body of knowledge, and an increasing set of iteratively evolving developmental prototypes and tools. Our survey, here, briefly engages the richness of contemporary pursuit in this vein. We consider the resources included to represent larger, interconnected areas of inquiry in themselves, which are further engaged in the accompanying annotated bibliography. Looking forward, we anticipate that the increase in technological skill and inquiry, coupled with massive data generation, will result in a network of information and annotations that encompass many more than a thousand entrances.

END NOTES

[1] This survey article is available with its complete annotated bibliography via the publisher's website at www.euppublishing.com/toc/ijhac/11/2. See also the appendix to this article.

[2] See J. Jett, T. W. Cole, David Dubin and Allen H. Renear, 'Discerning the intellectual focus of annotations', *Proceedings of Balisage: The Markup Conference*, 17 (2016), n.p., 8 May 2017.

[3] W. McCarty, 'A network with a thousand entrances: commentary in an electronic age?', in R. K. Gibson and C. Shuttleworth Kraus, eds., *The Classical Commentary: History, Practices, Theory* (Leiden, 2002), 359–402. Cited here at 363.

[4] See McCarty, 'Network', 363.

[5] See McCarty, 'Network', 361.

[6] *The Devonshire Manuscript*, https://en.wikibooks.org/wiki/Category:The_Devonshire_Manuscript, 4 July 2017.

[7] N. Shulman, *Graven with diamonds: the many lives of Thomas Wyatt* (London, 2011). Cited here at 142.

[8] *The Devonshire MS* (ff. 58v–59r)

9 *The Devonshire MS* (f. 58v); see https://en.wikibooks.org/wiki/The_Devonshire_Manuscript/ Sum_summ_say_I_love_sum_say_I_moke, 4 July 2017.

10 J. Paradis, K. Fendt, W. Kelley, J. Folsom, J. Pankow, E. Graham and L. Subbaraj, 'Annotation Studio: bringing a time-honoured learning practice into the digital age', *Comparative Media Studies and Writing* (27 July 2013), n.p. 4 July 2017.

11 See McCarty, 'Network'.

12 W. J. MacMullen, 'Annotation as process, thing, and knowledge: multi-domain studies of structured data annotation', *ASIST Annual Meeting* (2005), n.p. 4 July 2017.

13 C. C. Marshall, 'The future of annotation in a digital (paper) world', *Successes & Failures of Digital Libraries* (Illinois, 2000), 97–117. Web. 4 July 2017; J. Wolfe, 'Annotation technologies: a software and research review', *Computers and Composition*, 19.4 (2002), 471–97. Web. 4 July 2017.

14 R. Siemens, A. Garnett, C. Koolen, C. Leitch, M. Timney and ETCL, INKE, and PKP Research Groups, 'Toward modeling the social edition: an approach to understanding the electronic scholarly edition in the context of new and emerging social media', *Digital Scholarship in the Humanities* formerly *Literary and Linguistic Computing*, 27.4 (2012), 445–61. Web. 4 July 2017; M. N. Smith, 'Electronic scholarly editing', in S. Schreibman, R. Siemens and J. Unsworth, eds., *A Companion to Digital Humanities* (Oxford, 2004), 306–22.

15 E. Auer, A. Russel, H. Aloetjes, P. Wittenburg, O. Schreer, S. Masnieri, D. Schneider and S. Tschopel, 'ELAN as flexible annotation framework for sound and image processing detectors', *Proceedings of the Seventh Conference on International Language Resources and Evaluation* (Paris, 2010), 890–3. Web. 4 July 2017; A. Dingli, 'Annotating different media,' *Knowledge Annotation: Making Implicit Knowledge Explicit* (Berlin, 2011); M. Ginsburg and A. Kambil, 'Annotate: a web-based knowledge management support system for document collections', *Proceedings of the 32nd Hawaii International Conference on System Sciences* (Washington, DC, 1999); D. Kaplan, R. Iida, K. Nishina and T. Tokunaga, 'Slate—a tool for creating and maintaining annotated corpora', *Annotation of Corpora for Research in the Humanities*, 26.2 (2011), 91–103; B. Walsh, C. Maiers, G. Nelly, J. Boggs and Praxis Program Team, 'Crowdsourcing individual interpretations: between microtasking and multitasking', *Digital Scholarship in the Humanities* formerly *Literary and Linguistic Computing*, 29.3 (2014), 379–86.

16 M. Bauer and A. Zirker, 'Whipping boys explained: literary annotation and digital humanities', in R. Siemens, K. Price, D. Grigar and E. Lorang, eds., *Literary Studies in the Digital Age: An Evolving Anthology* (New York, 2015), n.p. https://dlsanthology.mla.hcommons.org/whipping-boys-explained-literary-annotation-and-digital-humanities/, 4 July 2017.

17 M. Agosti, H. Alberchtsen, N. Ferro, I. Frommholz, P. Hansen, N. Orio, E. Panizzi, A. M. Pejtersen and U. Thiel, 'DiLAS: a digital annotation service', *Proceedings of Annotation for Collaboration—a Workshop on Annotation Models, Tools and Practices* (2005), n.p. Web. 4 July 2017; F. Gao, 'A case study of using a social annotation tool to support collaboratively learning', *The Internet and Higher Education*, 17 (2013), 76–83.

18 M. Agosti, N. Ferro, I. Frommholz and U. Thiel. 'Annotations in digital libraries and collaboratories—facets, models and sage', in Rachel Heery and Liz Lyon, eds., *Proceedings of the 8th Conference on Research and Advanced Technology for Digital Libraries*. (Berlin, 2004), 244–55; C. Decurtins, M. Norrie and B. Signer, 'Digital annotation of printed documents', *Proceedings of the Twelfth International Conference on Information and Knowledge Management* (2003), 552–5. Web. 4 July 2017; R. Farzan and P. Brusillovsky, 'AnnotatED: a social navigation and annotation service for web-based educational resources', *New Review of Hypermedia and Multimedia*, 14.1 (2008), 3–23. Web. 4 July 2017.

19 Farzan and Brusillovsky, 'AnnotatED'; K. Fitzpatrick, 'CommentPress: new (social) structures for new (networked) texts', *The Journal of Electronic Publishing*, 10.3 (2007), n.p. Web. 4 July 2017; A. Visconti, 'Digital humanities annotates (#DHannotates)', *Literature Geek* (2 Feb. 2016), n.p. Web. 4 July 2017.

20 C. Bernava, G. Fiumara, D. Maggiorini, A. Provetti and L. Ripamonti, 'RDF annotation of second life objects: knowledge representation meets social virtual reality', *Computational and Mathematical Organization Theory*, 20.1 (2014), 20–35. Web. 4 July 2017; J. Chamberlain, M. Poesio and U. Kruschwitz, 'Phrase Detectives: a web-based collaborative annotation game', *Proceedings of the International Conference on Semantic Systems* (2008), 42–9.

21 C. Bowers, C Creed, B. R. Cowan and R. Beale, 'Touching annotations: a visual metaphor for navigation of annotation in digital documents', *International Journal of Human-Computer Studies*, 71.12 (2013), 1103–11.

22 P.-Y. Chao, G.-D. Chen and C.-W. Chang, 'Developing a cross-media system to facilitate question-driven annotations on paper textbooks', *Educational Technology & Society*, 13.4 (2010), 38–49. X. Mu, 'Towards effective video annotation: an approach to automatically link notes with video content', *Computers and Education*, 55.4 (2010), 1752–63; R. Stevens and S. Toro Martell, 'Leaving a trace: supporting MuseumVisitor interaction and interpretation with digital media annotation systems', *The Journal of Museum Education*, 28.2 (2003), 25–31.

23 T. W. Cole and M.-J. Han, 'The Open Annotations Collaboration phase i: towards a shared, interoperable data model for scholarly annotation', *Journal of the Chicago Colloquium on Digital Humanities and Computer Science*, 1.3 (2011). Web. 4 July 2017.

24 F. Rahman and J. Siddiqi, 'Semantic annotation of digital music', *Journal of Computer Science and System Sciences*, 78.4 (2011), 1218–31; A. Walter and G. Nagypal, 'Imagenotion — collaborative semantic annotation of images and image parts and work integrated creation of ontologies', *Proceedings of the 1st Conference on Social Semantic Web* (2007), n.p. Web. 4 July 2017.

25 S. Bao, X. Wu, B. Fei, G. Xue, Z. Su and Y. Yu, 'Optimizing web search using social annotations', *Proceedings of the 16th International Conference on World Wide Web* (New York, 2007), 501–10; Fitzpatrick, 'CommentPress'; R. Gazan, 'Social annotations in digital library collections', *D-Lib Magazine*, 14.11/12 (2008), n.p. Web. 4 July 2017; A. Plangprasopchok and K. Lerman, 'Modeling social annotation: a Bayesian approach', *ACM Transactions on Knowledge Discovery from Data*, 5.1 (2010), n.p. Web. 4 July 2017.

26 C. Cattuto, A. Barrat, A. Baldassarri, G. Schehr and V. Loreto, 'Collective dynamics of social annotation', *CrossMark*, 106.26 (2009), 10511–15. Web. 4 July 2017.

27 Wolfe, 'Annotation technologies'.

28 P. Bottoni, S. Levialdi and P. Rizzo, 'An analysis and case study of digital annotation', *Databases in Networked Information Systems* (Berlin, 2003), 216–31; Farzan and Brusillovsky, 'AnnotatED'.

29 V. R. Benjamins, J. Contreras, M. Blazquez, M. Nino, A. Garcia, E. Navas, J. Rodriguez, C. Wert, R. Millan and J. M. Dodero, 'ONTO-H: a collaborative semiautomatic annotations tool', *8th International Protege Conference Collaborative Development of Ontologies and Applications* (2005), 69–72; M. Bertini, A. Del Bimbo, C. Torniai, C. Grana and R. Cucchiara, 'Dynamic pictorial ontologies for video digital libraries annotation', *Proceedings of the Workshop on Multimedia Information Retrieval on the Many Faces of Multimedia Semantics* (New York, 2007), 47–56.

30 M. G. Noll and C. Meinel, 'The metadata triumvirate: social annotations, anchor texts and search queries', *Web Intelligence and Intelligent Agent Technology*, 1 (2008), 640–7.

31 S. Handschuh and S. Staab, 'Authoring and annotation of web pages in CREAM', *Proceedings of the 11th International Conference on World Wide Web* (New York, 2002), 462–73; Y.-M. Kim, P. Bellot, E. Faath and M. Dacos, 'Automatic annotation of bibliographical reference in

166

digital humanities books, articles and blogs', *Proceedings of the 4th ACM Workshop on Online Books, Complementary Social Media, and Crowdsourcing* (New York, 2011), 41–8.

APPENDIX

BIBLIOGRAPHY AND RECENT SCHOLARSHIP

Adriano, Christian Medeiros, and Ivan Luiz Marques Ricarte. 'Essential requirements for digital annotation systems.' *Revista de Sistemas de Informacao da FSMA*, 9 (2012), 24–44. Web. 30 May 2016.

Agosti, Maristella, and Nicola Ferro. 'A formal model of annotation of digital content.' *ACM Transactions on Information Systems (TOIS)*, 26.1 (2007), n.p. Web. 30 May 2016.

Agosti, Maristella, Nicola Ferro, Ingo Frommholz, and Ulrich Thiel. 'Annotations in digital libraries and collaboratories — facets, models and sage.' *Proceedings of the 8th Conference on Research and Advanced Technology for Digital Libraries*. Rachel Heery and Liz Lyon, eds. (Berlin, 2004), 244–55. Web. 6 May 2016.

Agosti, Maristella, Hanne Alberchtsen, Nicola Ferro, Ingo Frommholz, Preben Hansen, Nicola Orio, Emanuele Panizzi, Annelise Mark Pejtersen, and Ulrich Thiel. 'DiLAS: a digital annotation service.' *Proceedings of Annotation for Collaboration – a Workshop on Annotation Models, Tools and Practices*, (2005), n.p. Web. 6 May 2016.

Al-Khalifa, Hend S., and Hugh C. Davis. 'FolksAnnotation: a semantic metadata tool for annotating learning resources using folksonomies and domain ontologies.' *IEEE Innovations in Information Technology*, (2006), 1–5. Web. 30 May 2016.

Association for Computers and the Humanities. 'Digital humanities questions & answers.' *Associations for Computers and the Humanities*, (n.d.), n.p. Web. 30 May 2016. < http://digitalhumanities.org/answers/ > .

Auer, Eric, Albert Russel, Han Aloetjes, Peter Wittenburg, Oliver Schreer, S. Masnieri, Daniel Schneider, and Sebastian Tschopel. 'ELAN as flexible annotation framework for sound and image processing detectors.' *Proceedings of the Seventh Conference on International Language Resources and Evaluation*, (Paris, 2010), 890–3. Web. 28 May 2016.

Bao, Shenghua, Xiaoyuan Wu, Ben Fei, Guirong Xue, Zhong Su, and Yong Yu. 'Optimizing web search using social annotations.' *Proceedings of the 16th International Conference on World Wide Web*, (New York, 2007), 501–10.

Bauer, Matthias, and Angelika Zirker. 'Whipping boys explained: literary annotation and digital humanities.' *Literary Studies in the Digital Age: An Evolving Anthology*. Raymond G. Siemens, Ken Price, Dene Grigar, and Elizabeth Lorang, eds. (New York, 2016), n.p. Web. 8 May 2017.

Belanger, Marie-Eve. 'Annotations and the digital humanities research cycle: implications for personal information management.' *IDEALS @ Illinois*: *Digital Environment for Access to Learning and Scholarship*, (2010), n.p. Web. 6 May 2016.

Benjamins, V.R., J. Contreras, M. Blazquez, M. Nino, A. Garcia, E. Navas, J. Rodriguez, C. Wert, R. Millan, and J.M, Dodero. 'ONTO-H: a collaborative semiautomatic annotations tool.' *8th International Protege Conference Collaborative Development of Ontologies and Applications*, (2005), 69–72. Web. 6 May 2016.

Berland, Robyn O. 'A.nnotate & Pliny: learning, study & research tools for the digital age.' *Connect: Information Technology*, (2009), n.p. Web. 30 May 2016.

Bernava, Carlo, Giacorno Fiumara, Dario Maggiorini, Alessandro Provetti, and Laura Ripamonti. '*RDF annotation of second life objects: knowledge representation meets social virtual reality.*' *Computational and Mathematical Organization Theory*, 20.1 (2014), 20–35. Web. 28 May 2016.

Bertini, Marco, Alberto Del Bimbo, Carlo Torniai, Costantino Grana, and Rita Cucchiara. 'Dynamic pictorial ontologies for video digital libraries annotation.' *Proceedings of the*

Workshop on Multimedia Information Retrieval on the Many Faces of Multimedia Semantics, (New York, 2007), 47–56. Web. 28 May 2016.

Borrego, Angel, and Jenny Fry. 'Measuring researchers' use of scholarly information through social bookmarking data: a case study of BibSonomy.' *Journal of Information Science*, 38.3 (2012), 297–308.

Bottoni, Paolo, Stefano Levialdi, and Paolo Rizzo. 'An analysis and case study of digital annotation.' *Databases in Networked Information Systems*, (Berlin, 2003), 216–31.

Boujut, Jean-Francois. 'User-defined annotations: artefacts for coordination and shared understanding in design teams.' *Journal of Engineering Design*, 14.4 (2003), 409–19. Web. 6 May 2016.

Bowers, Chris, Chris Creed, Benjamin R. Cowan, and Russell Beale. 'Touching annotations: a visual metaphor for navigation of annotation in digital documents.' *International Journal of Human-Computer Studies*, 71.12 (2013), 1103–11. Web. 28 May 2016.

Bradley, John, and Paul Vetch. 'Supporting annotation as a scholarly tool – experience from the Online Chopin Variorum Edition.' *Digital Scholarship in the Humanities* formerly *Literary and Linguistic Computing*, 22.2 (2007), 225–41. Web. 30 May 2016.

Brooke, Julian, and Adam Hammond. *He Do the Police in Different Voices*. n.d. Web. < http://hedothepolice.org/ > . 30 May 2016.

Cattuto, Ciro, Alain Barrat, Andrea Baldassarri, Gregory Schehr, and Vittorio Loreto. 'Collective dynamics of social annotation.' *CrossMark*, 106.26 (2009), 10511–15. Web. 30 May 2016.

Chakravarthy, Ajay, Fabio Cirravegna, and Vitaveska Lanfranchi. 'Cross-media document annotation and enrichment.' CEUR Workshop Proceedings, 209 (2006), n.p.

Chamberlain, Jon, Massimo Poesio, and Udo Kruschwitz. 'Phrase Detectives: a web-based collaborative annotation game.' *Proceedings of the International Conference on Semantic Systems*, (2008), 42–9. Web. 6 May 2016.

Chao, Po-Yao, Gwo-Dong Chen, and Chih-Wei Chang. 'Developing a cross-media system to facilitate question-driven annotations on paper textbooks.' *Educational Technology & Society*, 13.4 (2010), 38–49. Web. 28 May 2016.

Cohen, Daniel J. 'Creating scholarly tools and resources for the digital ecosystem: building connections in the Zotero Project.' *First Monday*, 13.8 (2008), n.p. Web. 27 May 2016.

Cole, Timothy W., and Myung-Ja Han. 'The Open Annotations Collaboration phase i: towards a shared, interoperable data model for scholarly annotation.' *Journal of the Chicago Colloquium on Digital Humanities and Computer Science*, 1.3 (2011), n.p. Web. 8 May 2017.

Decurtins, Corsin, Moira Norrie, and Beat Signer. 'Digital annotation of printed documents.' *Proceedings of the Twelfth International Conference on Information and Knowledge Management*, (2003), 552–5. Web. 27 May 2016.

Dingli, Alexiei. 'Annotating different media.' *Knowledge Annotation: Making Implicit Knowledge Explicit*, (Berlin, 2011). Web. 6 May 2016.

Ellis, Sean, and Dennis Groth. 'A collaborative annotation system for data visualization.' *Proceedings of the Working Conference on Advanced Visual Interfaces*, (New York, 2004), 411–14. Web. 30 May 2016.

Farzan, Rosta, and Peter Brusillovsky. 'AnnotatEd: a social navigation and annotation service for web-based educational resources.' *New Review of Hypermedia and Multimedia*, 14.1 (2008), 3 –23. Web. 6 May 2016.

Ferro, Nicola, Gary Munnelly, Cormac Hampson, and Owen Conlan. 'Fostering interaction with cultural heritage material via annotations: the FAST-CAT way.' *Bridging Between Cultural Heritage Institutions*, (Berlin, 2014). Web. 27 May 2016.

Fitzpatrick, Kathleen. 'CommentPress: new (social) structures for new (networked) texts.' *The Journal of Electronic Publishing*, 10.3 (2007), n.p. Web. 6 May 2016.

Frank, Anette, Thomas Bogel, Oliver Hellwig, and Nils Reiter. 'Semantic annotation for the digital humanities.' *Linguistic Issues in Language Technology,* 7.8 (2012), n.p. Web. 30 May 2016.

Gao, Fei. 'A case study of using a social annotation tool to support collaboratively learning.' *The Internet and Higher Education*, 17 (2013), 76–83.

Gazan, Rich. 'Social annotations in digital library collections.' *D-Lib Magazine*, 14.11/12 (2008), n.p. Web. 6 May 2016.

Geurts, Joost, Jacco van Ossenbruggen, and Lynda Hardman. 'Requirements for practical multimedia annotation.' *Proceedings Workshop on Multimedia and the Semantic Web*, (Berlin, 2005). Web. 28 May 2016.

Ginsburg, Mark, and Ajit Kambil. 'Annotate: a web-based knowledge management support system for document collections.' *Proceedings of the 32nd Hawaii International Conference on System Sciences*, (Washington, DC, 1999). Web. 30 May 2016.

Handschuh, Siegfried, and Steffen Staab. 'Authoring and annotation of web pages in CREAM.' *Proceedings of the 11th International Conference on World Wide Web*, (New York, 2002), 462–73. Web. 30 May 2016.

Hendry, David, J.R. Jenkins, and Joseph F. McCarthy. 'Collaborative bibliography.' *Information Processing & Management*, 42.3 (2006), 805–25. Web. 6 May 2016.

Hodecker, Kara, and Naomi Pilosof. 'Evernote case study: designing first impressions that last.' Presentation at App Developers Conference, 2013. Web. 27 May 2016.

Hong, Yanhui, Tiandi Chen, Kang Zhang, and Lifeng Sung. 'Personalized annotation for mobile photos based on user's social circle.' *MultiMedia Modeling*, (2016), 76–87.

Hunter, Jane, Tim Cole, Robert Sanderson, and Herbert Van de Sompel. 'The Open Annotation Collaboration: a data model to support sharing and interoperability of scholarly annotations.' *Digital Humanities*, (2010), 175–8. Web. 28 May 2016.

Jett, Jacob, Timothy W. Cole, David Dubin and Allen H. Renear. 'Discerning the intellectual focus of annotations.' *Proceedings of Balisage: The Markup Conference*, 17 (2016), n.p. Web. 8 May 2017.

Jiun-Chi, Jan, Chih-Ming Chen, and Po-Han Huang. 'Enhancement of digital reading performance by using a novel web-based collaborative reading annotation system with two quality annotation filtering mechanisms.' *International Journal of Human-Computer Studies*, 86 (2016), 81–93. Web. 6 May 2016.

Johnson, Martin, and Rita Nadas. 'Marginalised behaviour: digital annotations, spatial encoding and the implications for reading comprehension.' *Learning, Media and Technology*, 34.4 (2009), 323–36. Web. 6 May 2016.

Johnson, Tristan E., Thomas N. Archibald, and Gershon Tenenbaum. 'Individual and team annotation effects on students' reading comprehension, critical thinking, and meta-cognitive skills.' *Computers in Human Behavior*, 26.6 (2010), 1496–507.

Kaplan, Dain, Ryu Iida, Kikuko Nishina, and Takenobu Tokunaga. 'Slate – a tool for creating and maintaining annotated corpora.' *Annotation of Corpora for Research in the Humanities*, 26.2 (2011), 91–103.

Kim, Young-Min, Patrice Bellot, Elodie Faath, and Marin Dacos. 'Automatic annotation of bibliographical reference in digital humanities books, articles and blogs.' *Proceedings of the 4th ACM Workshop on Online Books, Complementary Social Media, and Crowdsourcing*, (New York, 2011), 41–8. Web. 30 May 2016.

MacMullen, W. John. 'Annotation as process, thing, and knowledge: multi-domain studies of structured data annotation.' *ASIST Annual Meeting*, (2005), n.p. Web. 30 May 2016.

Mahlow, Cerstin, Christian Grun, Alexander Holupirek, and Marc H. Scholl. 'A framework for retrieval and annotation in digital humanities using Xquery full text and update in BaseX.' *Proceedings of the 2012 ACM Symposium on Document Engineering*, (New York, 2012), 195–204. Web. 6 May 2016.

Marshall, Catherine C. 'Annotation: from paper books to the digital library.' *Proceedings of the Second ACM International Conference on Digital Libraries*, (New York, 1997), 131–40.

Marshall, Catherine C. 'The future of annotation in a digital (paper) world.' *Successes & Failures of Digital Libraries*, (Illinois, 2000), 97–117. Web. 30 May 2016.

McCarty, Willard. 'A network with a thousand entrances: commentary in an electronic age?.' *The Classical Commentary: History, Practices, Theory*. Roy K Gibson and Chistina Shuttleworth Kraus, eds. (Leiden, 2002), 359–402.

McGann, Jerome. 'From text to work: digital tools and the emergence of the social text.' *Romanticism on the Net*. Dino Franco Felluga, eds. (2006), n.p. Web. 30 May 2016.

Mu, Xiangming. 'Towards effective video annotation: an approach to automatically link notes with video content.' *Computers and Education*, 55.4 (2010), 1752–63. Web. 28 May 2016.

Noll, Michael G., and Christoph Meinel. 'The metadata triumvirate: social annotations, anchor texts and search queries.' *Web Intelligence and Intelligent Agent Technology*, 1 (2008), 640–7. Web. 30 May 2016.

Paradis, Jim, Kurt Fendt, Wyn Kelley, Jamie Folsom, Julia Pankow, Elyse Graham, and Lakshmi Subbaraj. 'Annotation Studio: brining a time-honoured learning practice into the digital age.' *Comparative Media Studies and Writing*, (27 July 2013), n.p. Web. 6 May 2016.

Plangprasopchok, Anon, and Kristina Lerman. 'Modeling social annotation: a Bayesian approach.' *ACM Transactions on Knowledge Discovery from Data*, 5.1 (2010), n.p. Web. 6 May 2016.

Rahman, Fazilatur, and Jawed Siddiqi. 'Semantic annotation of digital music.' *Journal of Computer Science and System Sciences*, 78.4 (2011), 1218–31. Web. 28 May 2016.

Robert, Charles Abiodun. 'Annotation for knowledge sharing in a collaborative environment.' *Journal of Knowledge Management*, 13.1 (2007), 111–9. Web. 6 May 2016.

Ruotsalo, Tuukka, Lora Aroyo, and Guus Schreiber. 'Knowledge-based linguistic annotation of digital cultural heritage collections.' *IEEE Intelligent Systems*, 24.30 (2009), 64–75. Web. 28 May 2016.

Russel, Bryan C., Antonio Torralba, Kevin P. Murphy, and William T. Freeman. 'LabelMe: a database and web-based tool for image annotation.' *International Journal of Computer Vision*, 77.1 (2008), 157–73. Web. 28 May 2016.

Saklofske, Jon, and Jake Bruce, with the INKE Research Group. 'Beyond browsing and reading: the open work of digital scholarly editions.' *Scholarly and Research Communication*, 4.3 (2013), n.p. Web.28 May 2016.

Shillingsburg, Peter. *From Gutenberg to Google*. (Cambridge, 2006).

Shulman, Nicola. *Graven with diamonds: the many lives of Thomas Wyatt*. (London, 2011).

Siemens, Ray, Alex Garnett, Corrina Koolen, Cara Leitch, Meagan Timney, and ETCL, INKE, and PKP Research Groups. 'Toward modeling the social edition: an approach to understanding the electronic scholarly edition in the context of new and emerging social media.' *Digital Scholarship in the Humanities formerly Literary and Linguistic Computing*, 27.4 (2012), 445–61. Web. 30 May 2016.

Smith, Martha Nell. 'Electronic scholarly editing.' *A Companion to Digital Humanities*. Susan Schreibman, Ray Siemens, and John Unsworth, eds. (Oxford, 2004), 306–22.

Stein, Bob. 'Back to the future.' *Journal of Electronic Publishing*, 18.2 (2015), n.p. Web. 6 May 2016.

Stevens, Reed, and Sandra Toro Martell. 'Leaving a trace: supporting MuseumVisitor interaction and interpretation with digital media annotation systems.' *The Journal of Museum Education*, 28.2 (2003), 25–31. Web. 28 May 2016.

Su, Addison Y.S., Stephen J.H. Yang, Wu-Yuin Hwang, and Jia Zhang. 'A Web 2.0-based collaborative annotation system for enhancing knowledge sharing in collaborative learning environments.' *Computers and Educations*, 55.2 (2010), 752–66. Web. 6 May 2016.

Unsworth, John. 'Scholarly Primitives: what methods do humanities researchers have in common, and how might our tools reflect this?' Presentation at the Symposium on Humanities Computing, London, United Kingdom, 13 May 2000.

Visconti, Amanda. 'Infinite Ulysses: mechanisms for a participatory edition.' *Editing Modernism in Canada*, 4 (November 2013), n.p. Web. 6 May 2016.

Visconti, Amanda. 'Digital humanities annotates (#DHannotates).' *Literature Geek*, (2 Feb. 2016), n.p. Web. 6 May 2016.

Walsh, Brandon, Claire Maiers, Gwen Nelly, Jeremy Boggs, and Praxis Program Team. 'Crowdsourcing individual interpretations: between microtasking and multitasking.' *Digital Scholarship in the Humanities formerly Literary and Linguistic Computing*, 29.3 (2014), 379–86.

Walter, Andreas, and Gabor Nagypal. 'Imagenotion – collaborative semantic annotation of images and image parts and work integrated creation of ontologies.' *Proceedings of the 1st Conference on Social Semantic Web*, (2007), n.p. Web. 30 May 2016.

Wang, James, Kurt Grieb, Ya Zhang, Ching-chih Chen, Yixin Chen, and Jia Li. 'Machine annotation and retrieval for digital imagery of historical materials.' *International Journal on Digital Libraries*, 6.1 (2006), 18–29. Web. 30 May 2016.

Waters, James, and Robert Allen. 'Music metadata in a new key: metadata and annotation for music in a digital world.' *Journal of Library Metadata*, 10.4 (2010), 238–56. Web. 30 May 2016.

Wolfe, Joanna. 'Annotation technologies: a software and research review.' *Computers and Composition*, 19.4 (2002), 471–97. Web.

Yang, Stephen J.H., Irene Ya-Ling Chen, and Norman W.Y. Shao. 'Ontology enabled annotation and knowledge management for collaborative learning in virtual learning community.' *Journal of Educational Technology & Society*, 7.4 (2004), 70–81. Web. 6 May 2016.

Yang, Stephen J.H., Jia Zhang, Addison Y.S. Su, and Jeffery J.P. Tsai. 'A collaborative multimedia annotation tool for enhancing knowledge sharing in CSCL.' *Interactive Learning Environments*, 19.1 (2011), 45–62. Web. 30 May 2016.

BIBLIOGRAPHY OF TOOLS

Altmann, Gerry, Richard Buck, and Tim Page. *TagNotate*. n.d. Tim and Gerry Inc. Web. 22 February 2016. < http://www.tagnotate.com > .

AnnotateIt/Annotator. 7 November 2015. Open Knowledge Foundation. Web. 22 February 2016. < http://annotateit.org > .

Annotation Studio Team. *Annotation Studio*. Version 2.1.0. MIT Hyperstudio. Web. 25 May 2016. < http://www.annotationstudio.org/ > .

Annotary. 10 September 2012. Annotary, Inc. Web. 6 May 2016. < https://annotary.com > .

Annotea Team. *Annotea*. 31 October 2005. W3C. Web. 25 May 2016. < https://www.w3.org/2001/Annotea/ > .

Annotum. 21 October 2015. Solvitor LLC. Web. 22 February 2016. < http://annotum.org/ > .

Auber, Oliver, Pierre-Antoine Champin, and Yannik Prie. Advene. 5 June 2012. LIRIS. Web. 22 February 2016. < http://www.advene.org/ > .

Austrian Institute of Technology. *Annotorious*. Version 0.6.4. MIT. Web. 25 May 2016. < http://annotorious.github.io/index.html > .

Axiom. n.d. Axiom Networks Inc. Web. 22 February 2016. < https:// www.axiomnetworks.ca > .

BasKet Note Pads. 30 September 2010. KDE Project. Web. 22 February 2016. < http://basket.kde.org/ > .

Bauer, Matthias, Angelika Zirker, and Timo Stosser. *Explanatory Annotation: A Research Project in Digital Literary Annotation*. n.d. Web. 8 May 2017. < http://www.annotation.es.uni-tuebingen.de > .

Bekerle, Patrizio. *QOwnNotes*. 27 May 2016. Web. 9 May 2016. < http://www.qownnotes.org/ > .

Bradley, John. *Pliny*. Version 1.1.0. Center for Computing in the Humanities, King's College. Web. 22 February 2016. < http://pliny.cch.kcl.ac.uk/index.html > .

Bruce, Jake, Jon Saklofske, and Rick Giles. *New Radial*. 24 September 2013. INKE Group. Web. 22 February 2016. < http://inke.acadiau.ca/newradial/ > .

CAT: Content Annotation Tool. n.d. Content Insight. Web. 9 May 2016. < https://dh.fbk.eu/resources/cat-content-annotation-tool > .

Call, Luke A. *OneModel*. 8 April 2016. Web. 6 May 2016. < http://www.onemodel.org/1/e-9223372036854622523.html > .

Cannon, Robert, and Fred Howell. *Annotate.co*. n.d. Textensor Limited. Web. 22 February 2016. < https:// www.annotate.co/ > .

Chatterati. 25 September 2012. Chatterati.in. Web. 6 May 2016. < https://chrome.google.com/ webstore/detail/chatterati/gcofjgcjnfblnifodeniggbibpidbhcg?hl=en > .

Crocodoc. n.d. Box. Web. 22 February 2016. < https://crocodoc.com > .

Crowley, Dennis, and Naveen Selvadurai. *Foursquare.* n.d. Foursquare. Web. 19 May 2016. < https://foursquare.com > .

Delicious. *Delicious*. n.d. Delicious Media, INC. Web. 19 May 2016. < https://delicious.com/ > .

Diigo. n.d. Diigo, Inc. Web. 9 May 2016. < https:// www.diigo.com/ > .

Disqus. *QuickFox*. 19 November 2014. AddOn. Web. 22 February 2016 < http://firefox.add0n. com/quickfox.html > .

Dominik, Carsten. *Org-mode*. Version 8.3.4. Rackspace Hosting. Web. 22 February 2016. < http://orgmode.org/ > .

Duncombe, Stephen, and Thomas More. *Open Utopia*. 5 December 2012. Web. 16 June 2017. < http://www.theopenutopia.org > .

eLaborate. 11 March 2016. Huygens ING- KNAW. Web. 27 May 2016. < http://elaborate. huygens.knaw.nl/ > .

Eliot, T.S., and Touch Press. *The Waste Land for iPad*. 2011. Web. 11 September 2012.

Evernote. n.d. Evernote Corporation. Web. < http://evernote.com/ > .

Flickr. n.d. Yahoo! Web. 20 May 2016. < http://www.flickr.com/ > .

Frytsky, Volodymyr, and Nadia Frytska. *AllMyNotes Organizer*. n.d. Vladonai Software. Web. 22 February 2016. < http://allmynotes.vladonai.com/ > .

Genius. n.d. Genius Media Group Inc. Web. 22 February 2016. < http://genius.com/ > .

Glass, Geof. *Marginalia*. 7 October 2015. Web. 27 May 2015. < http://webmarginalia.net/ > .

GNotes Team. *GNotes*. n.d. Web. 22 February 2016. < https:// www.gnotes.me/ > .

Google Drive. Google. n.d. Web. 6 May 2016. < https://drive.google.com > .

Haystack Group. *nb*. n.d. MIT. Web. 9 May 2016. < http://nb.mit.edu/ > .

Horman, Jason, and Michael Butscher. *WikidPad*.Version 2.2.0. SourceForge. Web. 9 May 2016. < http://wikidpad.sourceforge.net/ > .

Huffman, Steve, and Alexis Ohanian. *Reddit*. 20 May 2016. Reddit, Inc. Web. 30 May 2016. < https:// www.reddit.com > .

Hypothes.is Team. *Hypothes.is*. 27 May 2016. Web. 27 May 2016. < https://hypothes.is/ > .

Institute for the Future of the Book. *CommentPress*. Version 3.8.9. CommentPress. Web. 26 May 2016. < http://futureofthebook.org/commentpress/ > .

KDE group at the University of Kassel, DMIR group at the University of Würzburg, and L3S Research Center. *BibSonomy*. 10 March 2016. Web. 19 May 2016. < http://www.bibsonomy.org > .

Krom, Robin. *Greenshot*. SourceForge. 24 May 2016. Web. 27 May 2016. < http://getgreenshot.org/ > .

Levine, David K., Gunnar Teege, and Gerhard Hagerer. *Jarnal*. 13 December 2014. Web. 22 February 2016. < http://www.dklevine.com/general/software/tc1000/jarnal.htm > .

Media Kit. *Outline*. 1 May 2015. Gorillized Corporation. Web. 22 February 2016. < http://outline.ws/ > .

Mendeley. n.d. Mendeley. Web. 6 May 2016. < http://dev.mendeley.com > .

Nardello, Massimo. *MyNotex*. 25 May 2016. Lazarus. Web. 27 May 2016. < https://sites.google.com/site/mynotex/ > .

Net 7. *Pundit*. 29 October 2015. Pundit LAB. Web. 22 February 2016. < http://thepund.it/ > .

NowComment. n.d. Fairness.com LLC. Web. 6 May 2016. < http://nowcomment.com/ > .

Okular Developers. *Okular*. 16 December 2015. KDE Applications. Web. 22 February 2016. < https://okular.kde.org/ > .

Open Knowledge Foundation Labs. *TEXTUS*. 22 March 2015. Web. 10 May 2016. < http://textusproject.org/ > .

Open-Sankoré. n.d. Sankore. Web. 22 February 2016. < http://open-sankore.org/ > .

Oversity. *CiteULike*. 2006. Web. < http://www.citeulike.org > .

Pinterest. *Pinterest*. n.d. Web. 30 May 2016. < http://pinterest.com/ > .

President and Fellows of Harvard College. *Highbrow*. 14 November 2011. Harvard Library Lab. Web. 30 May 2016. < https://osc.hul.harvard.edu/liblab/projects/highbrow-textual-annotation-browser > .

Protonotes. *Protonotes*. n.d. Webanza. Web. 10 May 2016. < http://www.protonotes.com/ > .

Pyysalo, Sampo. *Brat Rapid Annotation Tool*. 8 November 2012. Crunchy Frog. Web. 22 February 2016. < http://brat.nlplab.org/ > .

Qiqqa. n.d. Quantisle. Web. 22 February 2016. < http://www.qiqqa.com/ > .

Romano, Tom. *Madcow*. 11 October 2013. 4impact. Web. 22 February 2016. < http://www.web-annotations.com/ipages/ > .

Schneirov, Zachary. *Notational Velocity*. 31 March 2011. Web. 22 February 2016. < http://notational.net/ > .

Schoenberg, Lawrence, and Barbara Brizdle Schoenberg. *DM: Tools For Digital Annotation and Linking*. n.d. The Schoenberg Institute for Manuscript Studies. Web. 22 February 2016. < http://schoenberginstitute.org/dm-tools-for-digital-annotation-and-linking > .

Selz, Dorian, Felix Hurlimann, Patrice Neff, and Christoph Hauzenberger. *Memonic*. 4 January 2012. Nektoon AG. Web. 22 February 2016. < http://www.memonic.com/ > .

Shilman, Michael, Zile Wei, and David M. Bargeron. *Freeform Digital Ink Annotation Recognition*. 11 August 2009. Microsoft Corporation. Web. 22 February 2016. < https://www.google.com/patents/US7574048 > .

Simplenote. 29 March 2016. Automattic. Web. 27 May 2016. < http://simplenote.com/ > .

Sopinspace. *Co-ment*. n.d. Abilian SAS. Web. 10 May 2016. < http://www.co-ment.com/ > .

Sparkle. *Skim*. Sourceforge. January 2016. Web. 22 February 2016. < http://skim-app.sourceforge.net/ > .

SpecLab. *Prism*. 10 November 2015. Scholars Lab. Web. 10 May 2016. < http://prism.scholarslab.org > .

StumbleUpon. *StumbleUpon*. n.d. Web. 20 May 2016. < http://www.stumbleupon.com > .

Tegeda, Eddie A. *Digress.it*. n.d. Web. 26 May 2016. < http://digress.it/ > .

University of Hamburg. *CATMA*. Version 4.2.0. Web. 10 May 2016. < http://catma.de > .

Visconti, Amanda. *Infinite Ulysses*. 22 January 2015. Web. 22 February 2016. < http://www.infiniteulysses.com > .

Weiske, Christian. *Tomboy*. 18 April 2016. The GNOME Project. Web. 27 May 2016. < https://wiki.gnome.org/Apps/Tomboy > .

Wikindx. *WIKINDX*. Version 4.2.2. Sourceforge. Web. 20 May 2016. < http://wikindx.sourceforge.net > .

Windows Journal. n.d. Microsoft. Web. 22 February 2016. < http://windows.microsoft.com/en-ca/windows7/create-and-personalize-handwritten-notes-using-windows-journal > .

WordHoard. 1 March 2011. Northwestern University. Web. 9 May 2016. < http://wordhoard.northwestern.edu/userman/index.html > .

Wright, Jacob, and Derek Andriesian. *MyStickies*. n.d. Web. 6 May 2016. < https://www.mystickies.com/ > .

Yellow Pen. Marker.to. 9 November 2014. Web. 22 February 2016. < http://marker.to/ > .

Zurb. Bounce. n.d. ZURB. Web. 6 May 2016. < http://www.bounceapp.com/ > .

Your short guide to the EUP Journals Blog http://euppublishingblog.com/

A forum for discussions relating to Edinburgh University Press Journals

1. The primary goal of the EUP Journals Blog

To aid discovery of authors, articles, research, multimedia and reviews published in Journals, and as a consequence contribute to increasing traffic, usage and citations of journal content.

2. Audience

Blog posts are written for an educated, popular and academic audience within EUP Journals' publishing fields.

3. Content criteria - your ideas for posts

We prioritize posts that will feature highly in search rankings, that are shareable and that will drive readers to your article on the EUP site.

4. Word count, style, and formatting

- Flexible length, however typical posts range 70-600 words.
- Related images and media files are encouraged.
- No heavy restrictions to the style or format of the post, but it should best reflect the content and topic discussed.

5. Linking policy

- Links to external blogs and websites that are related to the author, subject matter and to EUP publishing fields are encouraged, e.g.to related blog posts

6. Submit your post

Submit to ruth.allison@eup.ed.ac.uk

If you'd like to be a regular contributor, then we can set you up as an author so you can create, edit, publish, and delete your *own* posts, as well as upload files and images.

7. Republishing/repurposing

Posts may be re-used and re-purposed on other websites and blogs, but a minimum 2 week waiting period is suggested, and an acknowledgement and link to the original post on the EUP blog is requested.

8. Items to accompany post

- A short biography (ideally 25 words or less, but up to 40 words)
- A photo/headshot image of the author(s) if possible.
- Any relevant, thematic images or accompanying media (podcasts, video, graphics and photographs), provided copyright and permission to republish has been obtained.
- Files should be high resolution and a maximum of 1GB
- Permitted file types: *jpg, jpeg, png, gif, pdf, doc, ppt, odt, pptx, docx, pps, ppsx, xls, xlsx, key, mp3, m4a, wav, ogg, zip, ogv, mp4, m4v, mov, wmv, avi, mpg, 3gp, 3g2*.