Annotation by Design

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What can students learn from using Annotation Studio?

In two years of experimenting with Annotation Studio in literature classes, I have observed developments in students' learning that suggest the power of digital tools to focus their reading, writing, and critical thinking. Beyond progress in skills that students typically refine in humanities classes and for which our Annotation Studio tools and pedagogy seem ideally suited, I have also seen remarkable growth in students' heightened awareness of themselves, not just as novice learners but as active researchers in my field. They do not simply learn to do something in these classes; they become something.

This is new.

Classic Habits, New Expectations

Both my students and I bring certain traditional tools to any literature classroom. We start with books and the hope that reading will produce pleasure, stimulation, and insight. We also bring certain ideas of literacy that arise from mid-twentieth-century models of close reading. For many of us, the reading experience comes with a set of standard expectations:

- It is linear. You start at the beginning and go to the end. Books have a design that you can best appreciate by reading in a given order.
- It is continuous. Books have a unity and cumulative effect that you would lose by jumping around.

•It is complete. You must read it all to get the meaning.

•It is deep. Your first reading gives you “only” surface understanding. You must read and re-read, looking for significant patterns of language and theme, before you can say you understand the text.[1]

Students often come to class with some training in these reading patterns, a sense of the mysteries of texts, and an experience, sometimes, of having probed these mysteries to achieve understanding of the text, its characters, or its themes. If they have not had some experience of a text being “relatable,” they tend not to choose a literature class.

With these classic literacies, students also bring training that arises from their experience of reading, writing, and thinking in a digital space. Henry Jenkins has called literacies derived from online reading communities—fan sites, book clubs, writing groups—a “participatory culture” that teaches students different skills from what they might learn in a traditional humanities classroom. Humanities instructors have responded to students’ digital cultures of reading in various ways: by incorporating visual media into the curriculum; by making learning more social, giving students freedom to create digital projects on their own or in teams; or by using the power of internet tools to visualize, search, mine for data, compare, and map texts in more diverse and compelling ways. This mixture of old and new media, traditional and technologically advanced learning styles, private and social modes of reading has vastly increased the range and potential of what we can do in our classes. Starting from the first discussion of whether we use print or digital texts, whether laptops belong in a literature class or not, whether

[1] Henry Jenkins and Wyn Kelley, eds. *Reading in a Participatory Culture: Remixing* Moby-Dick *in the English Classroom* (New York: Teachers College Press and National Writing Project, 2013), 94.

Wikipedia research is useful, whether blogs can provide models of good writing, we can debate endlessly the impact of new media literacies on traditional modes of reading and writing.

Poised on a Line

Regardless of how students view humanities learning in digital spaces, they tend to hold certain truths to be self-evident. Chief among these is the fact that students do one thing, professors another. Professors know more than students do, and they teach what they know. Students do not expect to know what professors know, but they assume they can develop certain skills and competencies that will aid their personal and professional growth. In a literature class, these skills include reading and writing, research, and critical thinking. Generally students do not, however, anticipate learning what humanities professors *do*: that is, to edit documents, advance scholarship, or have field-changing or world-altering ideas.

Yet students have access to advanced tools in my field, tools that were not available to undergraduates until very recently. More and more they can do the work literary scholars did in the past: examine rare books and manuscripts, study sources, translations, and adaptations, research among academic books and journals, publish to a wide audience. Technically they can do many of the things academic professionals do, even if they lack the confidence of experts.

Often my students can also write code, solve problems, research complicated data, and play a sport or a musical instrument too. But ask them to write something, and they may fall apart. I think the problem may be one of nomenclature, even identity. Students

in a literature class too often think of themselves as novice “readers” and “writers”; because they are novices, they must be bad readers and bad writers. But when I give them tasks that require the use of Annotation Studio, and when I tell them that as they complete these tasks they are working as editors, scholars, and critics, something remarkable happens.

They become better readers and writers.

Students as Editors

When I first encountered Annotation Studio in 2011, I was thinking about writing and publishing in a digital space. Students, it seemed to me, can now publish without traditional editors. They do not have to use editors at all, but if they want to be taken seriously, they need to know and use the standard tools of editing: preparing a manuscript to be read by others, improving language, structure, and argument so that their work earns respect. Yet students seldom think of their essays as something to *edit*. Once they have written, perhaps even revised them, they put them aside. What different kinds of skills would they need to make their writing public in a meaningful way? Annotation Studio offers a simple, practical tool for editing their own work—making comments and changes, speculating on how different audiences might read the text, going a step further from tasks they had already practiced in revisions.

Editing is, however, very different from writing, and I found that using Annotation Studio to edit made students aware of details in their papers that they might have missed. It also reinforced the social aspects of editing. Whether they edited their own essays or those of other students, whether they edited privately or in groups, they

had to think about audience in new ways, as extending beyond a single reader, the professor, to peers inside and outside the classroom. Editing also gave students a sense of responsibility for their own work. They were not simply handing it to an instructor for a grade but were making themselves accountable for their ideas and expression. Annotation made their editing public and visible, to themselves and to potential collaborators, and even if we did not end up publishing these papers outside the classroom, students were learning the skills needed to reach a wider audience.

Similarly students might edit the texts they read and studied. At the time I was teaching Mary Shelley's *Frankenstein* as a compilation of literary body parts, of stories and ideas that Shelley borrowed from literary sources. Finding and tracking these sources and then recording their findings with Annotation Studio, students could see the layers of Shelley's artful borrowings and adaptations of the myth of Prometheus, for example, or the Bible, Milton's *Paradise Lost*, the Romantic poets, Humphrey Davy's lectures, and other materials. As they glossed unfamiliar words and researched unknown texts, they were creating a new text, a version of *Frankenstein* for their community, their peers. As they edited the text, it or parts of it became theirs; it became meaningful to them.

Whether editing texts they'd read or ones they'd written, students found annotation the first step of a rewarding and absorbing process. In Annotation Studio, they could create a personal archive of documents; they could use Annotation Studio's selection features to engage directly with the text; the record of their markings and comments could create a reading map, a visualization of their own reading process; and their comments might form the basis of a developing hypothesis or argument about what they had observed. Even before sharing their annotations with classmates or an

instructor, they had a searchable, sharable body of work on which to build for essays, reports, and discussions. And whereas they found writing intimidating, editing seemed manageable, especially within the clear parameters Annotation Studio provides. As their annotations developed into new writing, students found their inhibitions about writing disappear.

Students as Scholars

Students could become editors. It did not seem so big a step for them also to become researchers in a humanities field, using the same scholarly tools that academics have acquired. What do scholars do, after all? They learn the typical research tools and discourses of a field; they create communities around a subject or set of methods; they generate new ways of thinking or looking at materials; they take risks, tolerate ambiguity, and invite failure; and frequently they collaborate, thereby nurturing individual growth and the development of a field as well. Using Annotation Studio, I found that students could accomplish many of these tasks within an undergraduate classroom. They could become scholars.

My case study was an advanced undergraduate seminar on Herman Melville, called “Mapping Melville” and taking as its basic premise the idea that digital tools now comprise an important part of academic scholarship in the humanities and should be part of students’ work with a major author. We approached the idea of “mapping” through three different collaborative projects.

The first involved geographical mapping and drew on students’ examination of Melville’s use of place names in *Moby-Dick.* Although the students depended on a

mapping tool called Locast (developed in the Mobile Experience Lab at MIT), they annotated *Moby-Dick* extensively as a way to explore Melville's geographical imagination. From this exercise they discovered that Melville refers to many more places than his characters visit, even on as extensive a journey as that of the whaling ship the *Pequod*. An extraordinary number of these geographical references cluster in regions, some predictable (Nantucket, the South Seas), some not so predictable (Europe, Africa). These discoveries led to innovative reports and essays exploring the cultural, historical, and literary significance of places they might never have noticed otherwise. And in each case, students chose locations of some personal interest—a place they had visited, for example, or that a family member came from. Their work vibrated with the intensity of their discoveries.

A second assignment involved source study of the kind I had used in my class on *Frankenstein*. For this project, students chose a literary source for one of Melville's short stories—say, his use of the Biblical story of Jael and Sisera in "The Bell-Tower" or Spenser in "The Encantadas" or Edgar Allan Poe in "Bartleby, the Scrivener." Researching literary scholarship on library shelves and in databases, students quickly established that Melville had borrowed from other authors. The challenge was to show what difference these sources made, and here the use of Annotation Studio proved invaluable, as students added blocks of source text to their annotations and developed comparisons between Melville and other authors. Again, the resulting essays showed fine-grained analysis of details as well as analyzing larger patterns of plot, genre, or theme. Topics included the presence of melodrama in Frederick Douglass's *The Heroic Slave* and Melville's "Benito Cereno"; Dante in "The Bell-Tower"; and Milton's

Paradise Lost in Melville's difficult novel, *The Confidence-Man.* I have never seen research projects of this depth and range before in an undergraduate seminar.

Lastly students used another digital tool, TextLab, developed at Hofstra University by John Bryant and Nick Laiacona for the Melville Electronic Library (MEL), to study Melville's manuscript revisions of *Billy Budd*, which the author never finished or saw printed. The text is notoriously unstable, but reading a college edition might lead one to assume that Melville's intentions for it were coherent and legible. They are not, and again Annotation Studio served an important role in breaking down the text for students into manageable sections for them to read and annotate closely. In tracing the words Melville added to or deleted from his manuscript and comparing them with edited version in Annotation Studio, students came to fresh conclusions. Remarkably enough, they could engage with and understand complicated text-analysis theory developed by Merton M. Sealts, Jr. and Harrison Hayford in the 1960s, theory that is of great interest to scholars but seldom makes its way into students' hands and minds.

My students, however, emerged from this class conversant with forms of research, analysis, and inquiry that until quite recently lived in the specialized domain of Melville studies. I was fascinated to see how Annotation Studio enabled them to become scholars of American literature. For them, the class had made arcane research practices transparent and accessible, inviting their participation in the critical and creative experiments academics pursue. For humanities scholarship considered more broadly, this kind of learning can revitalize traditional fields while reaching across them, managing information in new ways, creating collaborations between students and more advanced

scholars, and breaking up rigid methods and analytical structures. In other words, the class was as good for this literature scholar as it was for the students.

Students as Critics—or Maybe Designers Themselves

I have found that when Annotation Studio takes a central place in an undergraduate classroom, students at a certain point "go meta." Experienced in using and creating digital tools themselves, they tend to hack Annotation Studio, to introduce improvements, new uses, and fixes of their own. For example, long used to framing their use of Annotation Studio as a group in-class exercise—a close reading of a passage, for example—I was surprised to see students annotating their texts as we were discussing them, capturing good ideas from the discussion as it flew by. Using an annotation tool for taking in-class notes? It had not happened before, but once it did, students added many in-class annotations to the ones they did for their assignments or team project work.

They also contributed enthusiastically and innovatively to our assessment research. In the spring of 2015 I taught a Reading Fiction class with another Literature professor, Ina Lipkowitz, in which we shared the same reading list and assignments but varied our use of Annotation Studio. She had students work together in groups to generate and share comments; my students did not see what the other students wrote in Annotation Studio until much later in the term. A HyperStudio researcher, Rachel Schnepper, visited both classes, observed discussions, and read essays and assignments to evaluate the difference public vs. private uses of the tool might make. Regardless of her findings, my students became engaged themselves in the assessment of Annotation Studio, volunteering many suggestions for improving and expanding the tool. They could

now think of their classroom work as a form of research and development of the tool and its pedagogy. Their labors might serve a larger purpose than the grade they earned on papers and other assignments. In this evolution, students became critics of the whole enterprise of the class, of literary study in general and of annotation in particular.

In one striking example of the way students using Annotation Studio became more aware of their own learning styles and outcomes, becoming more "meta" in their studies, one in the Melville seminar said at the end of the semester that she had begun to think of literary study "in the context of engineering and 'design thinking'" such as what she encountered in her engineering classes. Her comment opened my eyes to the ways students expect to become designers of experiments in their science and engineering classes—why not in Literature too? Annotation Studio gave my students opportunities to work as Editors, Scholars, and Critics. But for some it also seemed compatible with skills humanities professors seldom invite their students to use—to design not just their own tools but their own learning process, their own experience of reading and writing and thinking critically. In that moment, I saw unexpected possibilities in the pedagogy we had developed, discussed, and assessed over the past few years of the NEH grant.

Conclusion

This report reflects on and distills a wide range of classroom activities, focusing primarily on a recent two-year span. I have seen startling developments in my students' work as they have experimented with many different uses of Annotation Studio.

I have also been involved with development of Annotation Studio for use in advanced scholarship and editing, through the HyperStudio's partnership with the

Melville Electronic Library (of which I am Associate Director) and its suite of scholarly editing tools (TextLab, Juxta Editions, Itinerary). Unquestionably Annotation Studio has potential for as rich contributions to humanities scholarship, research, and editing, as to pedagogy, as my experience has demonstrated so far.

Annotation Studio also has immense value outside of the academy. As I have seen with both scholarship and teaching, Annotation Studio is remarkably transparent. It makes reading, writing, and thinking visible, enabling creative and critical connections and discoveries. In that sense, it has unlimited possibilities for all kinds of communications outside the classroom or lab.

We are just beginning to understand that potential, and I hope to continue the experiment in new directions in the future.