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What is This?

Bringing Social Media to the Writing Classroom: Classroom Salon

David Kaufer[1], Ananda Gunawardena[1],
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Abstract

This article introduces a new IText technology called Classroom Salon. The goal of Classroom Salon is to bring some of the benefits of social media—the expression of personal identity and community—to writing classrooms. It provides Facebook-like features to writing classes, where students can form social networks as annotators within the drafts of their peers. The authors discuss how the technology seeks to capture qualities of historical salons, which also built communities around texts. They also discuss the central features of the Classroom Salon system, how the system changes the dynamics of the writing classroom, current efforts to evaluate it, and future directions.

Keywords

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The startling change in IText over the past 10 years has been the rapid development of the social Web and, with it, the explosive growth of social media. Social media now account for 11% of time spent online (Jasra, 2010). Qualman (2009) and Lancaster and Stillman (2010) offered eye-popping statistics on social media's viral growth. Many authors have written extensively on the democratic flattening effect of social media, purportedly giving grassroots organizations and consumers new powers of access and organization unavailable to them in face-to-face environments (Gurak, 1999; Pole, 2010; Shirky, 2008; Surowiecki, 2005). And every Fortune 500 company now carefully monitors and seeks to influence how its products, services, and reputation rank in customer reviews on the Web (Benkler, 2006; Li & Bernoff, 2008; Scoble & Shel, 2006). In light of this explosive growth, you would think that social media would play an increasingly foundational role in writing education.

But the curious truth is that although social media are becoming fast-growing extensions of writing classrooms, they have yet to prove themselves as required enhancements. Writing teachers now commonly use the Web in their teaching and have students engage with blogs, wikis, Twitter[TM], Facebook[TM], and other forms of multimedia that combine static and moving words and images (Yancey, 2009). These trends for the most part represent resourceful efforts to bring social media to the writing classroom. But writing classrooms that make use of social media can too often do so at the expense of the traditional focus of writing classrooms, especially the persistent focus on the textual process and product, electronic or physical. In traditional writing classrooms, texts are the traditional focal points of sustained attention. Teachers and students must coordinate their attention around flexibly sized text segments, from a single word to the whole text, to the discussion of rhetorical goals and plans that, in the ideal of skilled writers (Flower & Hayes, 1981) and close readers (Richards, 1929/2008; Haas & Flower, 1988), maintain tight connections to the segments of language that realize those goals and plans.

According to recent theories of attention (Oakley, 2009), such coordinated attention is important and hard won. In blogs, wikis, and other social media content, an author's original text can easily lapse into a secondary role, as pointers, brief commentary, or captions to other links (see Myers, 2010, on the language of blogs and wikis). The attentional scaffolding around highly elaborated texts that is necessary for learning to write can easily fall by the way. Without considerable care, the importation of social media into writing classrooms can sacrifice important strengths of traditional writing education that we should be reluctant to lose.

In foundational writing classrooms that use social media, the text must remain the primary object of attention, interrogation, and discussion. If students cannot get their writing closely examined in the writing classroom, where can they expect to get it examined? They can have their prints critiqued in the graphic design classroom and their Web sites critiqued in the multimedia classroom. But neither the design nor the multimedia teacher is equipped, in most cases, to give the rigorous assessment of the students' language that is expected of the writing or language arts teacher. We do not deny the growing importance of multimodality in social media and in literacy practices generally (Kress, 2003). Writing with social media is becoming increasingly important in today's world, and the undergraduate curriculum must have a place for practicing the art of building consolidated multimedia. Nor do we want to assert that writing classrooms that have students create social media artifacts will necessarily leave the linguistic components of those artifacts unexamined. There are exceptional teachers who are experts at teaching and assessing visual, video, and language skills as a unified suite. But these rare teachers exist because they can fall back on their foundational training in visual, video, and language arts as discrete studies with distinctive areas of interrogation. Learning to write in social media that consolidate these areas does not guarantee the foundational training in writing that is necessary to create robust writers across many writing genres and tasks. Consequently, converting writing classrooms charged with language instruction into social media spaces does not guarantee that the essential business of writing classrooms will be preserved.

To preserve this foundational attention to written expression, we need to rethink the relationship between social media and the writing classroom. Social media rely on values of identity and community that can and should, in principle, enhance writing education. But such enhancement is a promise not a fait accompli. We cannot indiscriminately convert writing spaces into social media spaces and then declare victory by saying we are peering into the future of writing. For foundational courses in writing, we must insist on writing spaces that leave the close interrogation of texts and what makes them rhetorically effective in context nonnegotiable. Then we need to think about how the advantages of social media with respect to identity and community building can be systematically deployed to enhance the learning gains of these writing spaces. And we must design social media that create improvements on, not distractions from, a writing classroom's fundamental mission to interrogate texts.

There are many paths toward this mission. In this article, we describe one path that we have been taking to add value to writing education through

social media: an IText technology called Classroom Salon. To explain our motivation for this environment, we first ask, What is a salon in the physical world? How does it embody social values relevant to the writer? How can these social values be reinforced through social media? In the next section, we take a first step toward answering these questions by looking at salons in history.

Salons in History

Historically, salons have gathered together people who seek to improve their own learning through socializing with others. Salons are prosocial spaces for acquiring knowledge through interaction. The cognitive and social aspects of the salon, designed both to educate and to socialize, are irreducible. Interaction spawns knowledge, and knowledge spawns interaction. Since the 17th century, salons have appeared in all forms across Europe and America and have been the subject of much historical debate. Habermas (1989) famously argued that salons, playing important roles as theatres of conversation and exchange in 18th century Europe, helped bring about the emergence of a bourgeois public sphere that developed an identity independent of court society. Goodman (1989, 1994) reinforced Habermas's argument by concluding that the ''public sphere was structured by the salon, the press and other institutions of sociability'' (Goodman, 1994, p. 14). Opponents of Habermas's historiography contended that salons were conservative extensions of the ruling order rather than organs opposed to it (Elias, 1978; Harth, 1992; Pekacz, 1999). Landes (1988) made a third argument, that salons were sui generis institutions that stood apart from both public spheres and the ruling government. Others contend that salons were hybrid spaces, capable of serving the ends of the ruling class while sowing opposition to it as well (Kale, 2005).

According to some scholarship, an important feature of salons that separated them from court culture was their focus on intellectual over social advancement. According to this scholarship, whereas the courts encouraged social climbing and patronage, salons effaced social hierarchies. While promoting sociability, salons were established to break down social barriers by bringing together an unpredictable assortment of people of different social ranks and orders—nobles, bourgeoisie, women, and men—who shared a common interest in developing themselves and one another intellectually. Women played a key role in organizing salons. They often selected the guests and subjects of the salon and often mediated the discussion (Kale, 2005).

Salons and the Values of Social Media Spaces

From the perspective of some of the historical scholarship, some salons embodied many of the values we now associate with social media. They encouraged interaction across demographic boundaries of gender, race, class, and religion. Although not all salons encouraged such demographic flattening, some salons clearly did. Webberley (2005) showed how in a society that widely discriminated against women and Jews, some wealthy Jewish women achieved great social eminence in 19th-century Germany by regularly hosting salons in their homes for non-Jewish as well as Jewish Germans to discuss the latest trends in art, literature, philosophy, and music (see also Hertz, 1988).

Salons were personalized communities where members could tailor the agenda of the group to their personal learning requirements. For women in particular, salons could serve as self-tailored universities where they could assign their own readings and read their own work and get feedback, using other salon members as informal tutors (Bodek, 1976; Landes, 1988; Lougee, 1976). Salons promoted connecting with others to produce and share knowledge. Often, this connecting and sharing was led by a well-versed if not distinguished guest who was prepared to discuss the literature, painting, or music at the center of the event (Bodek, 1976).

Salons as Social Media Writing Spaces: Four Design Principles

Our current research has explored the historical salon as a blueprint for bringing social media and its values of shared identity and community to the IText writing classroom. As a basis of this blueprint, we developed four design principles for a digital salon:

1. Feature texts as the primary objects of interrogation.
2. Recognize the dual cognitive and social functions of textual annotations.
3. Measure the collective attention of readers through annotation behavior.
4. Use visualization to capture individual and collective annotation behavior.

Feature Texts as the Primary Objects of Interrogation

A digital salon appropriate for writing education needs to feature texts as the primary objects of interrogation. This primary focus on texts can be

accomplished by thinking of a classroom's collective textual annotations in an unorthodox way—as an emergent social network of understandings that can aid writers and readers alike and that, as any social network, can become compelling, even viral. To explain this unorthodox thinking and its relationship to our first and most fundamental design principle, we review some background on previous textual annotation systems.

Textual annotation systems fit into three broad categories. The first and most widely used category consists of systems that support team collaboration and coauthorship within productivity environments, largely word-processing environments (Wolfe, 2009). Coauthors or reviewers supply annotations on an emerging draft in order to refine the text efficiently, typically working under deadlines. Annotations serving the interest of productivity are used by millions of people worldwide in commercial products, from Microsoft Word^{TM} and Google Docs^{TM} to Adobe products.

The second category consists of textual annotation systems that support peer review. Such systems focus on quality assessment more than productivity. These systems are increasingly used by journals and Web sites such as Wikipedia to support systematic peer review (Gehringer, Kadanjoth, & Kidd, 2010). Commercial Web sites provide venues for less formal peer review, from rating books (e.g., Amazon) to rating the daily opinion of op-ed editorial writers (e.g., *The New York Times's* Web site). Versions of peer-review systems with experimental algorithms are being deployed in educational settings to study whether computer-supported methods of peer review can make assigning and grading writing more cost-effective in large courses. Such systems, such as SWoRD (Cho & Schunn, 2007), assign students in large classes to review essays written by their class peers. The SWoRD system weights and averages these reviews to produce a formal evaluation of the text. Cho and Schunn found that, in a large content-based classroom, an annotation system that averages the comments of five trained student reviewers can score a student essay similarly to the score that the classroom instructor would have provided.

The third and most recent category of textual annotation systems is a byproduct of social Web sites and the revolution in social media. The focus of these systems is neither productivity nor quality assessment. The physical metaphor of such systems is the refrigerator, office door, or fence post on which you mount something to read or look at and then affix a commentary to make your stance known to passersby. In this category of textual annotation systems, people use public artifacts to provide their opinions, to invite others to do the same, and in the end, to build community through texts. The Internet provides an endless stream of such artifacts.

New social media companies, such as Web Notes and Web Sticky Notes, have emerged as virtual office fence posts on which users share links to Web sites that catch their eye. They bundle these site links with their commentary for others to read and comment on in turn. Blogs have become the paradigm of writing environments in the social Web that meld personal stance and the public sphere (Miller & Shepherd, 2004; Nardi, Schiano, Gumbrecht, & Swartz, 2004; Schmidt, 2007; Siapera, 2008).

Textual annotation systems associated with writing instruction and the writing classroom have been tied almost exclusively to productivity or peer-review environments. Classroom Salon supports textual annotation in this third, social media, sense. Every digital text within this system is a ground-zero site of an emerging social network of annotators and annotations. In the world of print, the social reach and ultimate influence of a text depends on the reading communities it is able to create over time (Kaufer & Carley, 1993). As an IText system, Classroom Salon seeks to marry the digital text with annotation communities that extend from classrooms to organizations and potentially to the whole Web. At the scale of the writing classroom, Classroom Salon, which features the text as the primary object of interrogation, seeks to combine the stance-revealing and community-building strengths of social media with the traditional focus of the writing classroom.

Recognize the Dual Cognitive and Social Functions of Textual Annotations

The remaining three design principles follow from the fundamental one just discussed. The second design principle concerns the dual cognitive and social functions of textual annotations. To accommodate writing spaces, annotations must both deepen the understanding of the text to be discussed and help the readers to know one another as individuals and as a community. Like salons throughout history, digital salons must create knowledge about texts and community members at the same time. To function as a text-intensive social media environment, texts must be spaces for getting to know not only the author of the text but also other readers drawn to it.

Measure the Collective Attention of Readers Through Annotation Behavior

The third design principle concerns measuring the collective attention of readers. A system helping to support a social network of annotators formed

from their annotations must be able to measure the buzz generated from the commentary. Where are readers focusing their attention? What passages command the most annotation traffic, the least, and everything in between? These are crucial questions that members of the social network of annotators must be able to answer in order to feel part of a vibrant community. Participants in historical salons could traditionally size up the flow of the discussion by tracking it face-to-face. In a digital salon, alternative means must be devised to help annotators follow the flow of the community of annotators. We used the concepts of a hotspot and a heat map to measure the extent to which passages of a text command the attention of annotators. The more shared attention commanded, the hotter the passage. Through hotspots and heat maps, Classroom Salon can measure how collective attention is distributed throughout a text. In turn, the community of annotators can discover the extent to which their interrogation of the text matches or fails to match the rest of the community.

In an age of information explosion, Lanham (2007) has written about how collective attention has become an increasingly rare commodity. Our own uses of Classroom Salon in larger classes support Lanham's scholarship on this point. In studies of a 2,500 word document using 35 annotators who were directed to freely comment on passages that drew their interest, we found that although all the annotators collectively marked up over 60% of the text, no more than 11 annotators marked the same passages of text—and the passages that caught the common attention of these 11 annotators constituted less than 5% of the total text. In annotation tasks of this type, as the number of annotators and the length of the text increase, shared attention, as measured by annotation overlap, markedly decreases.

Use Visualization to Capture Individual and Collective Annotation Behavior

The fourth design principle is to use visualization to capture both individual and communal annotation behavior. To motivate students to acquire an awareness of a reading community over and above the awareness of their own actions, visualizations are helpful if not necessary. Visualizations can help students to concretely track how their stance on a text contributed to the aggregate picture of the community's stance. Our explorations of Classroom Salon suggest that visualizations heighten students' engagement in annotation. They become aware that the more they invest in annotating a text, the more invested they become in the social community of readers that they help construct. Visualizations bolster this investment because they

make the reading community a physical entity that the student can inspect and explore.

Classroom Salon

Guided by these four design principles, we have implemented a working prototype of Classroom Salon. From screenshots, we will overview three major features of the prototype:

1. Setting up a salon
2. Making annotations
3. Visualizing hotspots, filters, global responses, and student behavior

Setting up a Salon

Students enter Classroom Salon by registering their email address and password. Upon entering the system for the first time, they are presented with a profile page on which they are asked to submit a picture and text about themselves. Their profile can be updated anytime, and salon behavior is designed to help students continuously negotiate and revise their individual profile to accommodate how they want to be known within the larger community of writers and readers who are conversing about the same texts. Although Classroom Salon supports intact classrooms, it is also designed to support virtual classrooms and thus distance education. Furthermore, it can support noninstitutional learning groups in cyberspace, and it can support communities interested not only in student writing but in published content (e.g., scholars across the world interested in one play of Shakespeare or children across borders interested in one chapter of *Harry Potter*). We are in the process of making Classroom Salon interactive with Facebook[TM] so that Salon users can load information about themselves from their existing Facebook profiles, invite their Facebook friends into Salons, and export aspects of their Salon commentary to their Facebook newsfeed.

Having been registered into the system with a profile page, students are given options (What do you want to do today?) for how they wish to navigate through Classroom Salon (see Figure 1, upper right corner). They may decide to start a new group, submit a new text for review, or participate in an existing group as an annotator of another's text. Normally, the teacher will have created the salon for the classroom with or without a password, depending on the level of security required. Students whose writing is to

Figure 1. Opening Setup of Classroom Salon
Users in this scenario use the pull-down menu under My Groups to view all the salons to which they currently belong.

be reviewed will submit their drafts. When they submit, students can establish the annotation categories (or tags) and scales (e.g., ranging from positive to negative, unimportant to important, agree to disagree). They can also set the starting and stopping times to indicate how long their draft is open for review. In many classroom situations, these student choices will default to the preset choices of the teacher.

The students who are not submitting a draft enter the salon as participants, either to annotate the texts (as members of the salon panel) or to read the texts and the panel's annotations in order to contribute to the overall class discussion (as members of the salon public) after the panel has weighed in. Figure 1 shows a screen for students who enter as participants. The teacher has already created a group for the class called Our Beloved Class, and the students have been enrolled in this group. To enter it, students

pull down on the menu My Groups and find the entry for Our Beloved Class. When they click on this entry, they are taken to the group as participants.

Making Annotations

The primary form of social interaction within Classroom Salon is text annotation. Annotations can be anchored to specific segments of text, or they can be unanchored, or global. Global annotations seek to answer general questions about a text (e.g., What is the author's thesis? What is your overall assessment?). These questions can be seeded by the teacher or generated by students when they submit their texts. By definition, the scope of a global annotation is the whole text and its interpretive context. For this reason, a global annotation is not anchored to any specific segment of text. At the same time, some segments of text are better than others in providing evidence for the global annotation. Even if no discrete passage provides a full answer to what the author's thesis is or how the author's text should be assessed, some passages are more helpful than others in supplying substantiation for an annotator's global response. To embody this evidence for students, Classroom Salon allows students to make global annotations with *breadcrumbs*, which are selected passages that the annotator can store and include when justifying a global response. Rather than being the textual referents of the global response, breadcrumbs are the substantiation for it.

Consider one scenario in which a group has been formed to annotate Ben's observer portrait of his father (see Figure 2). The student annotator selects a region of text, causing the region to become highlighted and a commenting window to appear on the right where the annotator can write commentary on the selected passage. When the comment is saved, it is immediately stored in Salon's database. The annotator can assign the same comment to multiple nonadjacent segments of text by selecting these segments and then making a comment and saving it. The comment remains linked to all the segments to which it applies. Annotations can be classified by different classifiers or tags. In Figure 2, only a default tag (called *general*) is used. Tags that are defined by the teacher or the student submitting the draft can label standard writing rubrics (e.g., grammar, ideas, and organization). Tags can also label competing interpretive frameworks (e.g., a salon that is looking at women's literature may include the tags *nonfeminist*, *feminist*, and *antifeminist* to indicate different interpretative frameworks used to elaborate the surface text). Annotators can also include a measurement of their annotation on a Likert-type scale. In Figure 2, the
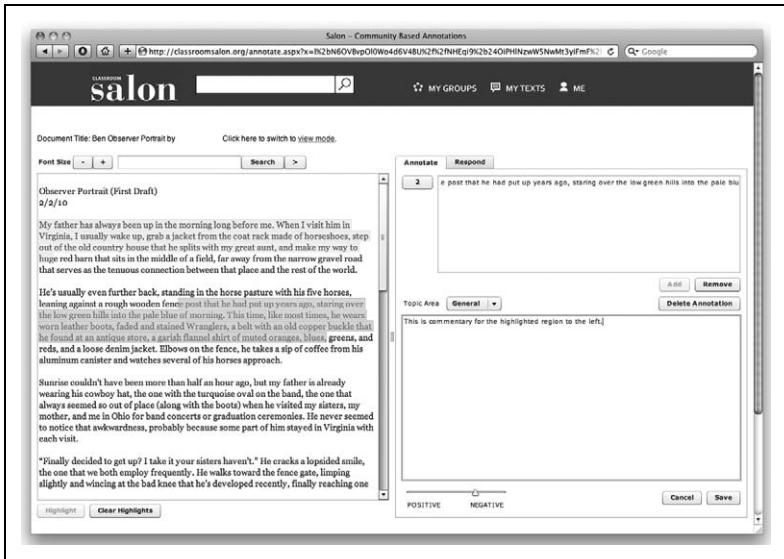
Figure 2. The Annotation Environment in Classroom Salon
Selections of text on the left brings up an annotation window on the right.

scale ranges from positive to negative. If the comment is positive overall, the annotator can slide the scale to the positive side. If the comment is negative or critical overall, the annotator can slide the scale to the negative side. Labels on scales are user defined and can be set in advance by either the teacher or the student submitting the draft. Tags and scales are used by the system to construct visualizations of the overall behavior of the annotation community.

Visualizing Hotspots, Filters, Global Responses, and Student Behavior

A defining feature of Classroom Salon is its capacity to integrate individual annotations into unified collective representations that can be visualized in a variety of ways. This integrative capacity is fundamental to the salon effect. Upon entering the view mode, individual annotators can see their annotations integrated with the annotations made by all others in the salon. The view mode converts the text from an object of individual attention to one of shared attention. Because texts are complex, inducing annotators

to attend to the same segments is challenging. Yet even if they rise to this challenge, they face the additional challenge of confirming that their attention is shared so that they can coordinate it for further decision making and judgment. In more technical terms, shared attention can fall short of coordinated deliberative attention (Oakley, 2009), the kind of heightened attention needed for community awareness. To maximize the possibility of coordinated deliberative attention on a text, the Classroom Salon system automatically computes hotspots based on the collective distribution of annotations.

Hotspots capture the segments of text that have generated the most attention, or buzz. In past face-to-face salons, where bodies were visible and voices were heard, additional cues were at hand for salon members to locate these hotspots in the discussion and use them to coordinate attention. In a virtual salon environment, where the discussion is asynchronous and bereft of vocal intonation and bodily cues, the automatic computation of hotspots provides some compensation. Hotspots are defined through flexible parameters rather than rigid rules. The most important parameter for our purposes here is also the most intuitive: How many annotators commented on this segment of text? When students move from entering their own annotations to viewing everyone's, they can easily be overwhelmed by the sheer volume of annotations throughout the draft. So which annotations deserve the most attention? One simple answer is the passages that attract the maximum number of annotators.

Hotspots filter annotations by their spatial location in a text. But Classroom Salon has filters for annotations beyond spatial location. For example, Classroom Salon can also filter by the individual annotator. When filtering by individuals, the user sees a picture of each individual annotator. By clicking on the picture of any annotator or subset of annotators, the user sees the annotations of those selected individuals. Figure 3 displays a public view of annotations under the users tab. This view shows annotations made by 10 of the 11 annotators. Although the annotations of these 10 annotators collectively cover most of the text, the user can see the hotspots among the highlighted text because those areas that greater numbers of annotators commented on appear darker. In Figure 3, the cursor is positioned over a relatively darker region (most of the second paragraph), and we can see that the region is relatively hot because it was annotated by three of the 10 annotators. Regions with fewer than three annotators appear lighter whereas regions with more than three annotators appear darker still.

Like a historical salon, Classroom Salon can be loosely structured, producing a discussion about a set of annotations that is freewheeling and
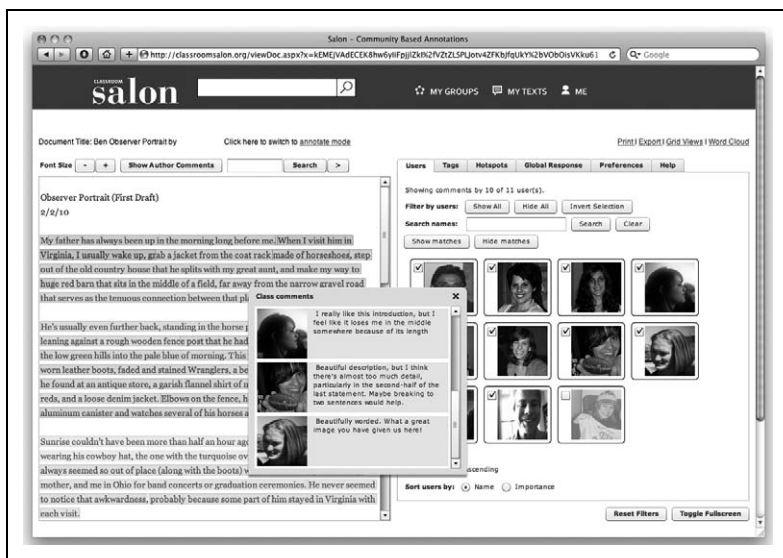
Figure 3. User View in Classroom Salon
The annotations of 10 of 11 annotators are displayed. The heat map on the left indicates areas in which annotations are concentrated. Rolling over a heated region brings up the selections and comments of multiple annotators over that region.

unfocused, with voices talking over one another. Alternatively, a salon can be focused around narrow questions, producing a voluminous but well-delineated discussion. Salons in history and Classroom Salon can accommodate both kinds of discussions.

Tags (e.g., annotations about grammar) and scales (e.g., annotations that fall between 8 and 10 on a 10-point scale measuring importance) filter annotations. In later versions of Classroom Salon, we shall make these filters interdependent and Boolean, so users can query just the annotations that fall within a specific hotspot, created by a specific individual, under a specific category and along a specific scale.

In addition to ways of visualizing a rich set of filters, Classroom Salon creates visualizations of global responses to a text. The visualization creates a grid in which the annotators form the rows and the questions form the columns. Reading across the grid row by row, each annotator's response to each of the questions is displayed. A user can view an annotator's breadcrumbs, or selections providing textual substantiation for a global response, by clicking on that annotator's global response. Other visualizations organize
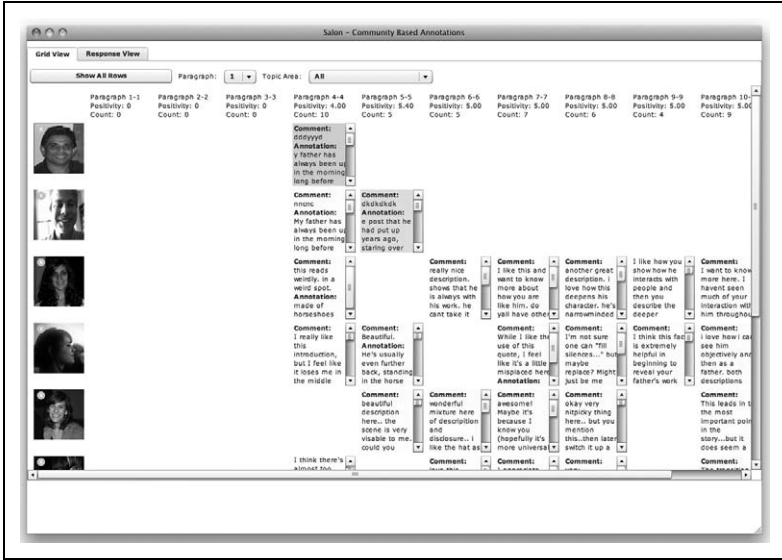
Figure 4. Classroom Salon Construction of a Grid View of Annotators by Paragraph

annotators into clusters based on their use of tags and scales and on the number of times their anchored annotations share hotspots.

Still other visualizations provide an ordinal view of the distribution of annotations from one paragraph to the next. Figure 4, which displays this view, shows that although many annotators congregate around multiple paragraphs, no annotator has chosen to annotate paragraphs 2 and 3 of the text.

Finally, Classroom Salon creates visualizations of student annotation behavior. Teachers using the system have wanted to know which of their students are the most active and which are the least active annotators, as well as which students fall in the middle. Teachers have also wanted ways to monitor the quality of student comments and not just their quantity. Responding to these requests, we created a dashboard that only the teacher can see. The dashboard gives a running list of each student annotator and the number of annotations the student has made across the documents submitted to a salon. To experiment with judging quality, we added a thumbs-up icon for each global annotation a student makes. Students reading the annotations of others can give the annotation a thumbs-up if they find the annotation particularly helpful or illuminating. The dashboard then keeps a running record of how many global annotations of each annotator was given a thumbs-up. A snapshot of the dashboard is shown in Figure 5.
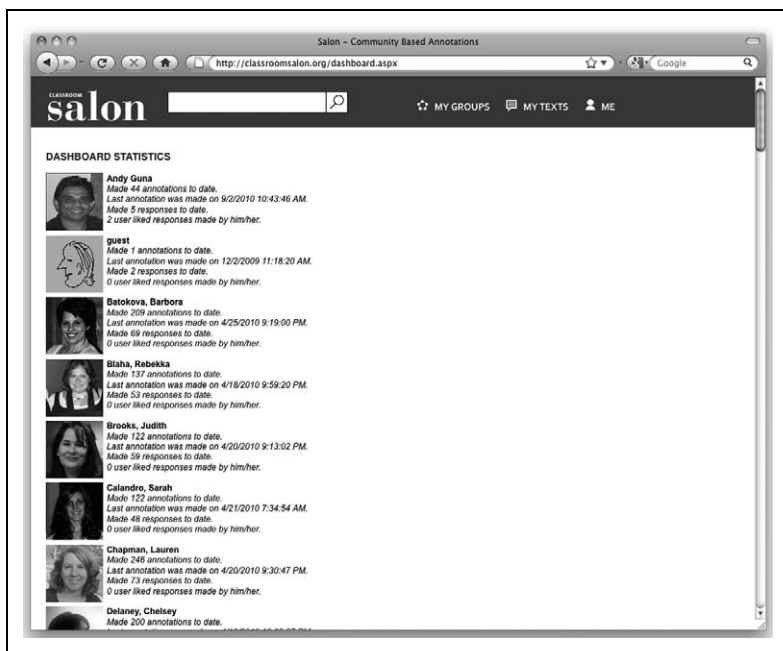
Figure 5. Snapshot of the Dashboard in Classroom Salon
The dashboard view allows teachers to monitor a student's annotation activity across a salon.

This dashboard and the measures that currently define it are crude, so we plan to refine them in later versions of Classroom Salon.

How Classroom Salon Changes Classroom Dynamics

Introducing Classroom Salon into a writing classroom changes the typical dynamics of that classroom. Before using Classroom Salon, one of us (Kaufer) taught a multidraft writing course for designers based on a workshop model. Most class sessions were workshop days, and on workshop days, four students were assigned to have their drafts read and critiqued in class. Although students were told to read the drafts beforehand, there was no accounting system to monitor whether they had read them. To make sure all students fully comprehended the drafts before the discussion began, the writers read their draft out loud.

When Classroom Salon was introduced into the same class, the four writers (called salon hosts) were now asked to submit their drafts 24 hours

before class. That gave the salon panel (four students assigned to critique the drafts in advance and lead the discussion about them) time to annotate the drafts with anchored and global comments and to substantiate their global comments with breadcrumbs if necessary. The panel's efforts seeded a class discussion of the texts before the class met, a discussion that the writers, the panel members, the remaining students in the class, and the teacher could all study before class. In presalon classrooms, students submitted drafts to Blackboard's[TM] discussion board; however, submissions to Blackboard did not provide sufficient incentive for students to read drafts carefully before class. In the Blackboard discussion board, drafts must be opened and read in isolation and individual discussion threads cannot link into the text or cross-index with other threads. In salon classrooms, however, the existence of both broad and focused discussion about the drafts across various visualizations, including hotspots, gave students greater incentive to follow the panel discussion, which in turn motivated them to follow the drafts that had generated that discussion. By class time, then, students came with a more consistent baseline comprehension of the drafts, the discussion they had spawned, and the various points of consensus and dissensus. In presalon classrooms, the first 80% of class time on each draft was spent securing that baseline (reading the texts aloud), leaving only 20% to build a consensus with the writer on plans for revision. In salon classrooms, no more than the first half (50%) of class time on each draft was spent with the panel reviewing the existing baseline understandings of the draft and points of consensus and dissensus, leaving the remaining half of the time for the host, teacher, and class to discuss plans for revision. Although historical salons were designed for community building more than production, IText salons in writing classrooms can leverage preclass community baselines in order to expedite discussion about moving the salon host, the writer, further ahead to a substantively improved draft.

When time and class size permitted, salon hosts were allowed to resubmit with a revised draft. As part of the resubmission process, the hosts were encouraged to submit their latest draft with ample self-annotations, pointing out their revision plans and locations in the text that reflected the implementation of those plans. These self-annotations were designed to explain to the new salon panel how the changes evident in the revised draft were sensitive to the previous community understandings of the earlier draft. When commenting on the revised draft, the panel may comment on the quality of the host's revision plans and the implementation of them. Although historical salons were designed for community building more than peer review, IText Classroom Salons can emulate some of the functions built into formal peer-review systems.

Assessing the Experience of Classroom Salons in Writing Classrooms

Thus far, we have administered survey assessments of Classroom Salon to teachers and students who are well trained in the software. The preliminary response from teachers and students in this cohort has been encouraging. They report that Classroom Salon changes the dynamics of the writing classroom in the ways that we have already described. Students seem to like it because it makes reading drafts a more social activity. Teachers like it because it makes reading a more accountable activity. The students assigned to submit (the salon hosts) and those assigned to annotate (the salon panel) know that the quality of the class discussion on the day of class depends on their doing their work ahead of time. If they do not do their work, or do a perfunctory job, the results are seen even before class. Students who do not do their part leave notable gaps in the salon discussion. But more positively, students who do their fair share reported feeling a sense of pride in helping to make the salon panel, and the overall classroom discussion, more successful. Their experience in the classroom was similar to that in a historical salon, in which a community of intellectuals each acted to define themselves and one another through lively exchange.

Salon panel members sometimes reported feeling a team spirit to outperform other panels in creating annotations that not only helped the student writers whose texts were being discussed but that also created productive discussion and a social rapport in the classroom. Some students reported that they came to know other students well simply through their annotation styles. Students who made a point of consistently giving detailed and thoughtful comments became trusted and admired by their classmates. Other students became known for their wit and incisive comments. And other students became known for their offbeat comments, their unique style of annotation, and their capacity to take advantage of areas of text that other students had overlooked to find penetrating things to say. A particularly interesting observation is that Classroom Salon benefits quiet students who have much to say but who tend to remain silent in classrooms populated by more verbally dominant students. Classroom Salon rewards annotators who are considerate in their commentary and not merely verbose.

By making commenting behavior a mode of personal expression, Classroom Salon promises to give every student agency and presence in the classroom. It also makes students accountable to one another because they know that their personal effort has an impact on the social culture and that this impact can be seen by all. Classroom Salon enables students to review

the social discussion of a text and build their own mental map of what was said about it prior to the class meeting. This preclass work frees teachers and students to use class time to discuss the writing at hand in considerably greater depth. Students in our surveys to date reported that they looked forward to coming to class because they saw the social annotations made before class as a seed for becoming even more socially connected during class. Even students who were ill the day their writing was to be discussed reported feeling more connection with their classmates than they felt in other classes. Attending class enhanced feedback, but substantial feedback was available even for those writers who on occasion could not attend class.

Future Directions

In fall 2010, the user base of Classroom Salon had grown exponentially, to about 10,000 students in various colleges and school districts. We plan to reach 100,000 users by summer 2011. Classroom Salon is also being used to support a wider variety of classrooms, including freshman writing sections, computer science courses, and content courses in the humanities and the social and natural sciences. We also plan to scale up our assessment efforts. Despite the positive experiences with Classroom Salon reported here, they are anecdotal and have been carried out on small populations. Our original designs for Classroom Salon benefited significantly from the collaborative input and research of Wolfe, who has found that annotations can have positive effects on learning from text (Wolfe, 2000), but only under the appropriate conditions of use (Wolfe, 2002) and only when the annotations are filtered for quality (Wolfe, 2008). We plan to incorporate the results of this research into larger, more controlled studies of learning within the Classroom Salon environment. The National Science Foundation has awarded us a 2-year grant to study whether salon discussions of difficult concepts in an introductory computer science course can improve comprehension of these concepts and even programming performance itself.

We are also extending Classroom Salon to content courses, where we have used a professional conference metaphor to structure the centralized and distributed learning sessions that take place in content classrooms. Salons supporting the content classroom are defined as having plenary, breakout, and submission documents. Plenary documents contain readings that require the centralized attention of all members of the class and must be read and annotated by all. Breakout documents require the centralized attention of only some members of the class, who will use these documents to

carry out group work that can be supervised by the teacher and shared with the class as a whole. Submission documents are spaces in which students work on papers reporting on the content read in the previous documents. We plan on furnishing Classroom Salon with utilities that allow a teacher to extract in one portfolio all of a student's annotation and writing activities over the course of the semester. And as we mentioned, we are in the process of making Classroom Salon interactive with Facebook so that Salon users can feed information about themselves from Facebook, invite their Facebook friends into salons, and export their salon commentary to their Facebook walls. In sum, we are trying to make Classroom Salon a spot on the Web in which text-loving communities can form and flourish around texts, just as they did in historical salons.

Conclusion

Social media have emerged as leading paradigms within which IText now exists. Because of the allure of social media in the mainstream economy and culture, those entrusted with writing education feel great pressure to incorporate social media paradigms. We believe that we must respond to this pressure favorably but cautiously, without losing site of what writing classrooms traditionally do well. At the same time, when we take the necessary precautions to maintain the value of traditional classrooms, social media can be used to make significant enhancements. Social media, such as Classroom Salon, help build personal identity and community simultaneously and, in so doing, add value to traditional learning environments. In virtualizing the social space of historical salons, Classroom Salon is a modest effort to transform the writing classroom into a social media classroom without sacrificing the traditional focus of such classrooms on texts and the effects that texts have on readers. Without a doubt, writing classrooms of the future will involve writing with social media. The challenge will be to make sure that these classrooms achieve the best integration of new learning paradigms with traditional practice.

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