Navigating Genre: How A Technological Pedagogy Can Empower Millennials

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Abstract

This paper employs a narrative approach as a springboard for a genre studies model for teaching technical communication. It details a project using this methodology in an introductory technical and professional writing course. The project was highly successful as measured in terms of student investment, and this paper suggests that this success was partially the result of a pedagogy based on giving students the freedom to use technology in their own ways. Student confidence in a familiar research method allowed them to tackle a project that would otherwise have been out of reach. This paper includes samples of student work and student reflection on the project as evidence of its value.

Introduction

Innovative and theoretically interesting ideas abound on the many listservs related to technical, professional, and business communication. Occasionally, a listserv thread takes on a life of its own as a new idea spurs discussion. In late 2009, the listserv for the Association of Teachers of Technical Writing became the host for one of these popular threads.

Kathryn Northcut (2009a), a well-respected scholar in the field, sent a message about one of her students at the Missouri University of Science and Technology. This student said that a proposal he was writing had to include a quad chart. Northcut hadn't heard of this genre and was reaching out for help and advice. As it turned out, no one else on the listserv professed expert knowledge over this genre, though many people had heard of quad charts and similar formats and had many ideas to share.

The first such response, from Katherine Wikoff (2009), suggested that the student was actually looking for something called an A3 report—so named for the 11 x 17 paper used in the genre—and explained that this report is intended to be brief and visual. She also said it was made famous by Toyota, a point which tends to spark the interest of students because of its connection to a lucrative company. Because of connections like this and because of subsequent discussion on the listserv about confusion over these genres—A3 reports and quad charts are distinct genres—it became clear that a project designed around this area of genre navigation might be both extremely educational and highly valued by students, especially Millennials and digital immigrants for whom rapid information-gathering is second nature and for whom assessment of source credibility will become increasingly important as the Internet continues to evolve.

Developing the Project: Learning Goals

After significant research on A3 reports and quad charts and their rhetorical functions, it became clear that a project that delved into the intricacies of these two genres would be valuable to students in

courses focusing on technical, professional, and business communication. This project would ideally guide students through genre confusion and a process of discovery that would ultimately help them develop a sense of empowerment when dealing with unfamiliar genres. Specific learning goals for applying this project to a section of Technical and Professional Writing I began to emerge.

At Illinois State, the teaching of Technical and Professional Writing I presents a unique challenge. The class is usually populated with a combination of information technology and English students in the college's publishing sequence, most of whom perceive the other group's major as foreign. The students will only necessarily have one thing in common, and that is completion of a basic composition course. Considering and incorporating any other areas of common interest becomes very important in developing a project with high student investment. One such common ground can be derived from the students' professed areas of interest, which can be predicted based on their enrollment in the class: All the students enrolled in this class are either Millennials or non-traditional students who are highly interested in technology. It is worth saying that Millennial students and the other students who often populate technical communication courses can be identified by another set of terms: digital natives and digital immigrants. Students who are digital natives—Millennials—are those who have grown up in the age of the Internet; those who have integrated it seamlessly into their lives are, if not digital natives, at least highly successful digital immigrants. The presence of these students in technical communication courses mean that projects that involve *using technology as both a source of knowledge and a method of creation* provide these students a manageable starting point.

In addition, *developing an understanding of genre*—what it is, how it functions, why it is important—is a foundational lesson that could be considered the main goal of a project such as this one. That goal can be broken down into smaller increments that are helpful for thinking about the structure of such a project. Students should learn to:

- Recognize a unique genre
- Conduct research to find out the specifics about a genre
- Identify when a particular genre is appropriate
- Produce a genre they were previously unfamiliar with

For practical purposes, this meant that students would have to become experts in A3 reports and quad charts, determine their rhetorical functions, and produce one or the other in an appropriate context.

Because writing courses are more valuable when they are process- as well as product-based, a third goal was for students to edit the work of other students as they developed quad charts and A3 reports. This enhanced their need to *be aware of the rhetorical situation of a genre* and gave them *practice in critical oral communication*.

Two additional final products aside from the A3 report or quad chart itself included a one-page analysis of their project and a three-minute, informal, oral presentation for their classmates. The original intention of these facets of the process was to ensure students were thinking critically about the assignment. Instead, the one-page analysis and final oral report performed another function that was immensely valuable: They helped to *form a strong learning community* in which students critiqued and reinforced one another's work and in which their pride in their work became evident.

A final learning goal was to *gain proficiency in two genres used in professional, technical, and business communication*.

Although study of genres themselves is interesting, teachers must also recognize the danger in using a genre-based learning model for a field as broad as technical and business communication. Promoting a communication pedagogy that is entirely genre-based would give students a focus that is far too narrow to be truly useful, and could lead them to the erroneous assumption that mastery of the field is possible. Such a pedagogy would be counterproductive. However, professional communication teachers do need to give students actual practice in learning new genres. All the theory readings and narrowly prescriptive projects in the world will not help students if they cannot figure out how to recognize a unique genre, research it, determine its usefulness and appropriate contexts, and produce similar products as necessary. The way to ensure that students can do this is practice. Practice involves actually learning a genre or two; quad charts and A3 reports happen to work well in connection with one another. This project, then, serves as a model project, not a model pedagogy, though its open technological approach contributed to the high student investment that made it successful.

Backing Up Practice: A Theoretical Framework

This entire project relies upon the intimate connection between modern students—especially Millennials—and technology. Today's students use technology by default; doing an online search is nearly as instinctive as recalling something from memory. These students, "fluent in acquiring and using technological tools and learning this technology quickly with an intuitive understanding of digital language, seem to use these tools as an extension of their brains" (Black, 2010, p. 95). Fifteen years ago, cybertheorist Sherry Turkle said, "an increasing number of people felt the tug of the computer as an extension of self" (1995, p. 110). Turkle was referencing affective responses to the rise of the personal computer; the strength of students' associations between computers and selfhood has only increased in the decades since. In fact, the essential characteristics of Millennials are their feeling of ownership toward technology and their construction of selfhood as related to technology. Thus, it is unsurprising that modern students inevitably use computer technologies both as a source of knowledge and as a medium for creating products that are entirely new.

Students will also rely upon connections between their work and others' work as they participate in increasingly globalized environments. Lawrence Lessig (2008) hypothesized that generosity—what he called a "sharing economy"—plays a major part in the creation of online identities, and thus the offline identities of Millennials and digital immigrants as well. His theory of a sharing economy can be extended to projects like the one discussed in this paper, because learning from online sources that students can easily access requires those online sources to exist. Someone must be willing to offer the knowledge for students to find. The existence of such sources, happily, sets the stage for the students to develop their own sharing economies. By learning from available online sources, students take their cue to produce work that will also be available to others. Projects that incorporate sharing ideas and work with the class as a whole encourage this common ethic. The openness and investment that such open sharing creates, of course, rests upon students' ability to emulate the generosity that Lessig theorizes. Students must understand that they may not always be satisfied with others' projects, but they nevertheless must allow all projects to be part of the class economy. The greatest danger of enacting Lessig's sharing economy in a classroom setting lies not in ideological disagreements but in disagreements about the remixing of source material, because students participating in a single learning community will no doubt

end up addressing topics that are related to each other. The genres in question—quad charts and A3 reports—essentially reformat known information in ways that are more easily comprehensible. The reduction of some topics in order to do this can cause strife among students: What sorts of reductions are acceptable and what sorts of reductions do violence to the topic, the reader, and the learning community?

Lessig invoked this valuable lesson about control as well, and it is a lesson that can be even more difficult for teachers than for students. Lessig said, "inspiring more creativity is more important than whether you or I like the creativity we've inspired" (130). Inspiring creativity—unhampered creativity—means ceding a certain amount of teacherly control. This may be a disadvantage in some ways, but it is absolutely necessary to several of the learning goals for a project such as this. This transfer of control from the teacher to the student encourages students to allow their academic and personal identities to blend; they begin to feel more self-assured in their work when they realize they will not be told they are unequivocally wrong for using so-called non-academic methods to obtain information. Students also begin to take issues of control upon themselves, self-policing in terms of what topics and approaches are acceptable and having many such discussions out loud with their peers. Thus, ceding control supports the development of a cohesive learning community at the same time that it reinforces student confidence in using their own technologies to learn about and create works that are actually deemed legitimate by the institution (that is, in this case, the teacher).

In some ways, this legitimization may make students feel that their work is real; they find a tangible connection between their personal and academic lives empowering. Students sometimes experience their studies as requiring a suspension of reality. In some ways, it may seem to students who are allowed to do their kind of research on their kind of topic that they have reached something more real, as opposed to previous simulated assignments. It is important to enhance any such project with readings and discussion on theory that make clear to students that this project is as simulated and culturally situated as any other academic exercise. Even while ceding control, the teacher must take responsibility for helping students to see their current rhetorical situation not as radical but simply as a different kind of simulation. Students must be aware of the differences in the projects they undertake academically and why different research methods are appropriate. They must be aware of their rhetorical situation and the demands of the genres they are working within.

Understanding of rhetorical situation and genre, of course, is an ultimate goal of any communication course. Gaining proficiency in specific genres is a happy side effect of this goal, and mastering the process of learning a genre is the greatest challenge of all. In studying A3 reports and quad charts, students find themselves beginning a learning process that seems highly technical at first. As they realize that they can recognize the features of the genre, find out about that genre using their own methods, determine its appropriateness for particular topics, and even produce something that seemed very complicated at first, they find that they can do more than they expected. They expand and modify their identities, or perhaps they even create new ones. To use Lessig's term, they learn to "remix" the knowledge they already have in order to face new challenges, both in navigating new genres and in constructing their professional selves. They learn to "take and share work freely" (Lessig, 2008, p. 226). They learn that everything is simulation and they begin to look for how such simulation works. And, if nothing else, they learn that crossing the border between traditional academic convention and Millennial-style research can be done, but that it is a complex and rhetorically situated process.

Implementation: Meet the Class

Implementation of this project for the first time occurred in Spring 2010 in a class of 16 students, half men and half women. Most were upperclassmen, and they were divided fairly equally between Information Technology and English majors with a few other related fields thrown in. Thirteen of the students were Millennials. The remaining three (two of whom spoke U.S. English as an additional language) were majoring in Information Systems and were very familiar with computer technologies.

All projects in this class began with a minimalist written directive, followed by considerable discussion, questions, and sometimes negotiation before the class began work. The written assignment that appeared on the class website (which can be found at http://students.english.ilstu.edu/eaclar4/249/) was as follows:

> In this individual project, you will navigate the differences between an A3 report and a quad chart as you learn why genre is so important in technical communication. Once you have been introduced to these genres, you will choose a topic that lends itself to presentation through either an A3 report or quad chart. You will then create your own A3 report or quad chart and write a one-page (single-spaced) analysis explaining your process and the rhetorical choices you made along the way. Finally, you will prepare a three-minute oral presentation of your product.

Students were aware early on that their goal was to become experts on quad charts and A3 reports before producing one or the other. The story of the catalyst for this project was also made available to students from the beginning; they knew about the listserv thread and their instructor's own lack of familiarity with these genres. As they realized that even communication experts struggle with new genres, they became empowered to seek out information on their own.

Students began this project by following instructions on a handout entitled "Quad Charts, A3 Reports, and Rhetorical Function." (This handout is available by emailing the author at eaclar4@ilstu.edu.) This handout discussed the listserv thread at greater length and included a number of pullout quotes from responses the thread generated. Following that was a series of questions for students to answer, followed by a series of steps to follow. These steps included visiting several websites about quad charts and A3 reports, reading John Stamey and Thomas Honeycutt's (2005) "Quad Charts in Software Project Management," and writing a short reflection on their learning.

Without prompting, students began looking up more information about quad charts and A3 reports on their own and asking for samples. Not only did the class culture allow general Internet searches, along with searches of scholarly databases, as a vehicle for learning, but this broad search technique was encouraged. This sort of learning, which could be termed open-source because of the mass availability of Internet search engines, pulls students in and gives them ownership of the tasks they are taking on. It also requires of students the additional responsibility of evaluating source material. Being open to technology use—all kinds of technology use—as a source of knowledge can be vital in encouraging student investment in projects such as this one.

As students conducted their research on these new genres, they began talking to one another to ensure they were on the same track as everyone else. As students made choices about the content of their projects and the particular genre they would use to drive that content, they got into spontaneous

debates about the rhetorical implications of using a quad chart, an A3 report, or a different genre entirely. One student, who had used quad charts previously as a U.S. Post Office employee, stuck to the quad chart as a superior genre. Others, not surprisingly, began to weigh the amount of work that went into one or the other so they could pick the one that allowed the most efficient use of their time.

Early in the project, students also read Charles Kostelnick's (1996) "Supra-textual Design: The Visual Rhetoric of Whole Documents" from *Technical Communication Quarterly*. In conjunction with their learning about quad charts and A3 reports, this reading encourages debate about rhetorical function and the importance of critical genre choice.

Finally, students conducted peer review on the quad charts and A3 reports they had created. Some students chose to modify the genre they used to fit their own goals, and these products sparked heated debates about the problems with audience perception and bending the rules of genre. Peer review took place the second-to-last day of the project. The final day—the day all components of the project were due—was devoted to oral presentation. Although the presentations were supposed to last around three minutes, most presentations took five minutes or more because students found that they had a lot of material to cover and they were invested enough to take the extra time. In addition, students were often bombarded with questions from classmates after completing their informal talk. The oral presentations spilled over into subsequent class periods, and many students said that they would have done their projects completely differently after seeing what other class members had done. A significant amount of learning came from the viewing of other students' final products.

In sum, students used their strengths—what I referred to above as open-source research—to overcome their weaknesses—in understanding genre and evaluating the credibility of sources—in this project. Their confidence in a familiar research method allowed them to tackle a project that would otherwise have been out of reach, and the practicality of their research helped them form a community-based economy that facilitated the learning of all involved. The high level of investment, enthusiastic participation, modest time frame (the whole project took just two weeks), and subsequent communications from students suggest that this is a project worth sharing.

Sample Student Work

This section is dedicated to a sample of student work from this project because this work represents an important piece of this paper. Integrating it into this text, rather than relegating it to an appendix, allows it to speak for itself. This authenticity is important because it echoes the approach to research taken for this project. "Get Fit: A Plan for Weight Loss and Fitness," shown in Figure 1, is a quad chart created by Katie Fagan. Katie found that quad charts consist of four quadrants: the top-left contains a visual image; the top-right details the capabilities of the proposal; the bottom-left discusses technical aspects and logical phases, and the bottom-right explains fiscal issues and benefits of the proposal. Katie took a topic that she is passionate about and determined that she could best achieve her purpose using a quad chart. Meanwhile, Figure 2 shows "Expanded Parking at Illinois State University," an A3 report by Amanda Lutes. A3 reports typically consist of a series of steps in which the author identifies a problem, conducts research and a cause analysis, suggests solutions and identifies an ideal solution, creates a plan for executing that solutions, and discusses possible outcomes. All of these steps are included, whether in textual or graphic form, on a single 11 x 17 sheet of paper. Amanda found that:

In my research of A3 reports, I learned that these types of reports are useful in presenting current statistics and on-the-surface problems, defining exactly what the root problem is, defining solutions for the problem, and then creating a detailed plan of execution; and all of this is done on one page! . . . An A3 report, being a one-page report, would be great to show to both students whose attention spans may be short and also to those in charge of the construction plans for parking lots at ISU.

Both Katie and Amanda are currently upperclassmen at Illinois State. Katie is a political science major, while Amanda studies journalism and hopes to work for a non-profit agency. Both believe that their knowledge of quad charts, A3 reports, and genre study will aid them in their future work.

Figure 1. "Get Fit: A Plan for Weight Loss and Fitness" by Katie Fagan

Figure 2. "Expanded Parking at Illinois State University" by Amanda Lutes
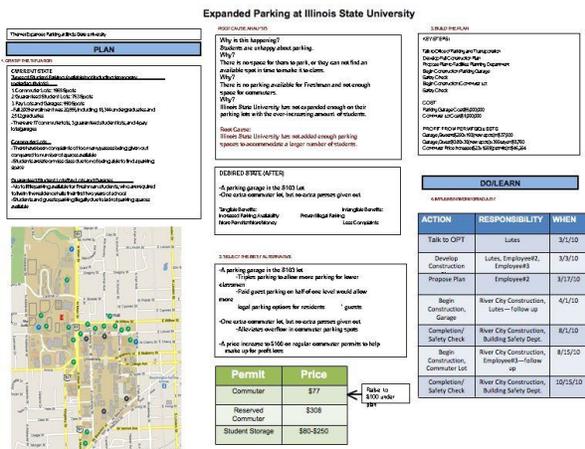
Conclusions

The success of this project is likely due to a number of factors, but allowing students the freedom to use technology in intuitive ways was certainly part of the equation. Excitement in the project began when students realized there were no rules—that is, no off-limits sources except those they designated as less than credible themselves—for how they were to learn about new genres. Most of them turned to personal computers and Internet searches right away when faced with learning about an unknown topic. This is precisely the characteristic of the Millennial generation that this project focuses on. For students born after 1980, and for students whose lives are imbued with technology, the intuitive approach to learning involves accessing the Internet. Teachers need to ensure that our students can use the methods *effectively* that they will use anyway. Students must learn to evaluate Internet sources rhetorically—just as they should read genres critically—and choose the best sources of information for study by holding them accountable for the information they use. By allowing students to dictate the tools that they wish to use—with guidance when necessary—and then helping them to use these tools, teachers can overcome the tendency to remain "stuck in the twentieth century" long after students have "rushed into the twenty-first century" (Prensky, 2005/2006, p. 8).

Teachers can intervene by helping students use the same processes to choose an appropriate technology that they do to choose an appropriate genre. The good news for teachers is that students often do this themselves. In a follow-up email on the original ATTW thread, Northcut wrote: "Last night in class, as an exercise, the students produced draft quad charts for the student who has to create one for his proposal. . . . Between 17 or so students, they used five different programs—Excel, Word, Publisher, InDesign, and PowerPoint, because I gave them free choice of tool." The only step left in this lesson, then, is to introduce a critical discussion of which software programs worked best for which topics and why.

Another benefit of introducing a project such as this one to a Millennial- and digital immigrant-heavy class is that these students "multitask and prefer visuals to graphics and text" (Black, 2010, p. 95). Creation of a quad chart or A3 report requires multitasking because of the multiple sections, and many students also multitasked by researching collaboratively. In addition, both of these genres rely on graphics and visual organization of text, which are areas that are often underemphasized in introductory professional and business communication courses. Finally, emphasizing areas like multitasking and visual communication meets students at the place where they form their own identities. Most students today have multiple digital identities, whether they are on Facebook, Twitter, MySpace, iTunes, online role-playing games, or in other areas. Turkle (1996) proposed a metaphor for this new sort of identity formation: windows, just like the windows on any computer screen. Windows "allow us to cycle through cyberspace and real life, over and over. Windows allow us to be in several contexts at the same time" (Turkle, 1996, p. 1). This is how Millennials function, and academic life is one of those windows; professional communication teachers must show today's students how to integrate their academic window with the research skills that they already possess as digital natives or successful digital immigrants.

Turkle's windows are important in structuring life, including lifelong learning. Northcut (2009b) emphasized the importance of continued learning as she concluded her final message in the listserv thread by discussing her students' sustained investment in even an in-class project: "[S]ome of the students were keenly distressed when I cut them off and asked them to post their designs . . . I got the

impression that they could spend days on it - some of them really enjoyed the challenge." Getting students to enjoy the work they do in class is a major step in ensuring that work stays with them as they move on to more complex and exciting communication situations.

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