

““Why Won’t Moodle...?": Using Genre Studies to Understand Students’ Approaches to Interacting with User-Interfaces”

Alison Witte, PhD

Trine University

213 Taylor Hall

1 University Ave.

Angola, IN 46703

wittea@trine.edu

Bio

Alison Witte is Associate Professor of Humanities and Communication and Chair of the IRB at Trine University where she teaches primarily FYC and upper division writing courses in research and technical writing. Her current research projects include a literature review of professional documents on teacher preparation to teach with technology and a large-scale survey project of rhet/comp PhD programs' practices for training future teachers to teach with technology.

Abstract

This article reports results from a six semester study that collected data about the device and software usage of FYC students, and about their experiences with our university's CMS. The guiding assumption was that people learn unfamiliar genres by determining how they are like and unlike genres they know and by observing how the unfamiliar genre is used in context (Miller, 1984; Devitt, 2004; Bawarshi, 2003). Two very distinct sets of practices for using technology and interfaces emerged—social/entertainment use are associated with mobile devices whereas school/professional work are almost exclusively associated with wired devices. Because our CMS interface blurs borders between these two sets of practices—using a social-media-influenced design for a school purpose and because faculty use the interface in varying ways, students struggle to determine the purpose/function of the CMS and how to use it appropriately. Based on these results, this article argues that instructors need to (1) account for the two sets of technology practices students employ when designing a course CMS and (2) clearly articulate the role(s) of the CMS in the course, as well as provide opportunities and motivation for students to engage with and learn about the CMS as a genre.

Keywords: Course Management Software; Genre; Interface; FYC students; Course design

Highlights:

- Situating interfaces as genres rather than simply tools for producing genres changes our pedagogical approach to interfaces.
- Students in the study have two distinct sets of technology use practices—one for social/entertainment interfaces and one for school/professional interfaces.
- Students struggle with course management software when they can't locate or understand the genre clues that indicate how/when they should use it.

“‘Why Won’t Moodle...?’: Using Genre Studies to Understand Students’ Approaches to Interacting with User-Interfaces”

1 Introduction

“Why are faculty required to use Moodle?” was my frustrated question. My university had what was called the “Moodle Minimum” that required faculty to use the classroom management system (CMS) in at least some way for each class. As someone who had used several other CMS programs before, my objection wasn’t necessarily to the idea of a CMS, but to the idea that I was stuck with one that was cumbersome to use, aesthetically unappealing, and lacked some of the affordances of building a site myself.

But most problematically to me, my students seemed to have no clue how to successfully operate the CMS or to integrate it into their class routine. I frequently had to answer questions, and panicked emails, about where to locate particular materials, how to upload assignments, and how to find grades and feedback. I had spent a good portion of my summer preparing new courses and part of the preparation included designing a Moodle space for each of my courses. After spending so much time and effort to build what I envisioned as a user-friendly system, the fact that my students couldn’t seem to figure it out left me annoyed. My annoyance was further compounded by the answer my original query received: “Because the students like it. They had it in high school and they’re used to having it.” Such a statement was supported by no evidence other than the anecdotal story about one particular student or school, and left me with more questions than answers. If students, assumedly, are used to having a CMS and like having a CMS, then why are they having so much trouble learning how to use it for my classes?

The following article reports the results of a six semester study that collected data from FYC students about their device and software usage, as well as their experiences with our university’s CMS. The study’s guiding assumption was that people learn unfamiliar genres by determining how they are like and unlike genres they know and by observing how the unfamiliar genre is used in context (Miller, 1984; Devitt, 2004). Extending this idea to user interfaces, and drawing on projects done by other computers and composition scholars (Selfe & Selfe, 1994; Haas & Gardener, 1999; Fisher, 2007; Carpenter, 2009), I hypothesized that students would treat learning the CMS like the learning of any unfamiliar genre and would apply their experiences with other interfaces to learning to interact with this particular interface.

While students reported the expected levels of interface and device use, their patterns of usage revealed that devices they use to access various interfaces were very task/context specific and that one of the issues with the interface for the CMS was that it looked like one genre, but behaved like another genre. Thus, students were unsure how to read the CMS as a genre, and therefore unsure how to use it and what their roles within it were.

2 Problems in Interface-Design

Warren Berger and Bruce Mau (2009) write that design rarely becomes noticeable until it fails. Although they are speaking about design broadly, their words speak volumes when it comes to interface design. When an interface works well (as expected) it often goes unnoticed, but “it is frustrating when an interface is counter-intuitive or fails to respond in an expected way” (Rosinski & Squire, p. 149). Mark Hass and Clinton Gardner (1999) indicate that when they introduced a new interface, users struggled to learn non-intuitive commands that did not match with their other experiences with interfaces and user satisfaction improved dramatically when the interface was switched to a more familiar layout that met users’ expectations. As digital interfaces become increasingly common in both our classrooms and our daily lives, the notion that the interfaces themselves act in certain ways and follow certain patterns is worthy of our attention. We have much scholarship that focuses on usability and making those interfaces user-friendly, but not nearly as much emphasis has been placed on how we, as users, understand the roles interfaces play in our interactions with texts and with each other, and how the ways we understand those roles affect our use of particular interfaces for particular purposes.

3 Applying Genre Theory to User-Interfaces

Starting with Carolyn Miller’s (1984) influential article on genre, scholars began to move toward looking at a genre as a way of understanding how a text responds to a particular recurring situation and how that text works for both its writer(s) and its reader(s). Amy Devitt (2004) has encouraged us to look at the ways genres shape and are shaped not only by situations, but also by cultures and other genres. She urges more attention not only to how the text functions on its own but with other genres and how those genres are culturally recognized and valued. Several scholars also drew attention to the ways users learn how and when to use new genres through comparing them to antecedent genres they already know (Bazerman, 1997; Bawarshi & Rieff, 2010) and through experience and practice (Devitt, 2004). Applying this approach to user interfaces, particularly web-based interfaces, is helpful, because as Rick Carpenter (2009) notes digital texts are different from traditional texts in many ways—the content is not necessarily static, multiple forms and types of media may be blended together, and the roles of author and audience can be actively shifted back and forth. Thus, Carpenter further argues that, for these types of texts, looking at what they do makes far more sense than trying to make sense of what they are.

However, while applying theories of genre to user-interfaces may seem like a natural fit that emphasizes function over form, we, as users and scholars (Skains 2017; Nobles & Paganucci, 2015; Breach et al, 2009), generally situate interfaces as tools for producing other genres rather than as simultaneously tools and recurring responses to situations. Situating the interface as a tool makes us more likely to focus on its usability rather than its function within a given context—the ways it situates creator and users and what its use indicates about the structure of the context. An interface is typically situated as a means to produce a genre, rather than a genre in and of itself. This response is, in part, due to the fact that it’s difficult to actively consider how our actions when using an interface are the result of (1) our expectations for how (particular)

interfaces work and (2) our past successes and failures using interfaces to complete similar tasks, while simultaneously trying to complete a task. Rather our usage tends to be unconscious or invisible because of the frequency with which we interact with digital devices and interfaces; we have, as Anis Bawarshi (2003) notes, “internalized its ideology in the form of rhetorical conventions” (p. 8). What we see in interfaces is generally so typified, we no longer actively consider how an interfaces functions in a given context.

Genre theory, with its emphasis on how genres both create and are created by situations, cultures, and other genres, can help resituate interfaces as texts serving a function rather than tools for creating texts. Such an approach situates the interface as an interaction between interface designer and users, highlighting the dynamic nature of interfaces in a rhetorical situation. Tom Lynch (2015) posits that interfaces are designed to control/prescribe/limit actions of users based on decisions made by the interface designer, or in the case of a CMS, the designer and the instructor employing the interface in a particular class situation, that are informed by his/her ideologies. More specifically, JoAnne Yates and Wanda Orlikowski (2002) argue that genres “serve as organizing structures within a community, providing expectations for the purpose, content, form, participants, time and place of coordinated social action” (p.104). Thus, interfaces, then, are not simply tools for producing particular genres, but have the power to dictate the typified response(s) in particular situation, based on the affordances of the interface. The interface, then, through the designers’ work and instructors’ use, dictates responses to a particular situation, and ultimately creates, a recurring response to that particular situation. Directing students to a text-based document production interface like Microsoft Word, Google docs or Pages cues them not only that the expectation is a to produce a text-based document, but a particular type of document which cannot be appropriately produced in an email or social media interface. By examining interfaces through this particular lens, we can focus more clearly on the ways in which interfaces actively shape our expectations and available appropriate responses in a particular situation.

In addition to offering an alternative way to look at the designing of interfaces, theories of how genres function—what work they do—can extend our understanding of the interface as an interaction between user, content, and purpose. How, when, and why a user chooses a particular genre is highly influenced by the task he/she wishes to accomplish (Devitt, 2004; Bawarshi, 2003). However how users understand a particular genre’s functions also affects whether or not they believe a particular genre is the appropriate response in a given situation (Yates & Orlowski, 2002). Utilizing an interface is a communicative act in response to an exigency. Interfaces translate information from one format to another, with each action by the user producing behind-the-scenes coded reaction(s) by the interface, that is then translated back into something users need. Users can, as with other genres, both read and respond to interfaces in response to exigencies. Users read interfaces for genre clues from the designer that will enable them to determine an appropriate response, within or outside the interface, to achieve their purposes. For example, a box prompting for a status update indicates a social media interface,

whereas a window displaying a blank sheet of paper indicates a document production interface. Both require textual responses in some format, but the interface design and constraints, as well as the context in which the interface used, dictate the appropriate response. Interfaces are designed to respond to particular situations or needs, much like other text-based genres are responses to particular exigencies. And users choose the interfaces, and utilize the features within interfaces that they believe are the appropriate responses in a given situation. Situating the interface as an interaction between user and content highlights the importance of the user's perceptions of how a particular interface functions for the task at hand and in the given context.

Lastly, theories concerning how genres are learned also help resituate interfaces as genres rather than tools. Donald Norman (2002) explained: "When we encounter a novel object, how can we tell what to do with it? Either we have dealt with something similar in the past and transfer old knowledge to the new object, or we obtain instruction. In these cases, the information we need is in the head. Another approach is to use information in the world, particularly if the design of the new object has presented us with information that can be interpreted." (p. 82). Similarly, scholars (Miller 2000; Bawarshi & Rieff, 2010) argue that we develop genre knowledge/awareness of genres via observation and practice. This concept can be extended to interfaces, like a course management system, that we learn through observation, practice, and trial and error. Studies (Hass & Gardner, 1999; Rosinski & Squire; 2009) indicate that users of new interfaces use previous experiences and knowledge of other interfaces to determine appropriate responses in the new interface. Additionally, they become frustrated when an interface lacks clues to indicate how to use it or to indicate what actions will produce the expected responses. Situating interfaces as genres learned through experience and practice creating particular responses to recurring situations shifts from our understandings of how users learn and engage with interfaces from how users' approach a tool to how users' previous experiences engaging with particular genres influence their expectations for new genres.

Applying theories of genre to interface allows for a focus on how an interface is understood, not just in terms of usability, but also in terms of its roles and functions in particular contexts. It also provides us with a framework for examining how users approach and learn new interfaces, as well as interact with familiar interfaces. Such an understanding then alters how we approach both constructing the interfaces used in teaching, as well as how we teach students with and about those interfaces.

4 CMS as Genre

The course management system is one of the most prolific interfaces in higher education. The CMS interface, though varied by provider, responds to the exigencies of creating a space for students and instructors to interact outside the traditional classroom and facilitating exchange of content among students and between students and instructors. Typically this manifests itself in one of two models for CMS use: (1) the digital classroom or (2) the repository.

David Fisher (2007) describes the CMS as typically used to replicate the structure of regular classrooms in a digital space—an approach that originated in online teaching and distance education, but that is also utilized in hybrid and face-to-face courses. He lists typical actions such as making course materials available, replicating course activities like quizzes, tests, discussion, etc. as the primary functions of the CMS. Other typical functions might include taking or reporting attendance, reporting grades to students, and making lecture materials available. As a genre, then, the CMS functions to replicate the on-ground classroom where the teacher delivers information/content—lectures, assignments, questions, etc.—to which students must respond. While there are mechanisms, such as the discussion boards that seem to disrupt this pattern, the top-down, instructor-driven design of most CMS means that student-users cannot create a discussion board if they feel that is the appropriate response to an assignment or exigency. Discussion boards must be created by the instructor who, by the very creation of the board, indicates what the appropriate response is. Thus, as it is typically designed, the CMS also suggests a particular structure of power where the instructor, via the interface, determines when and how students are to respond to particular exigencies like turning in assignments or accessing course readings.

The CMS might also be treated more like a repository of information, rather than replication of the classroom space. In this model, the CMS functions for both students and instructor as a means of asynchronous exchange of course content and course information such as policies and grades. Instructors may deposit copies of the course syllabus, readings, and assignment sheets into the CMS rather than printing them for students. They may request that students upload assignments for grading and maintain a digital grade book in the CMS. This model generally omits the use of discussion forums or other more interactive tools for students, using the CMS as more of a storage space that is continuously (at least as long as the course is taking place) available to both students and instructor. As with the previous model, the repository model implies certain roles for students and instructors as well as the function of the CMS in the course. The repository model also functions from a top-down perspective where the instructor uploads content he/she deems pertinent to the course for students to use. Students, as with the previous model, can respond only in ways requested by the instructor.

While the models differ slightly, the CMS functions similarly for both students and instructors. The CMS is situated as providing access to the necessary information, and sometimes the appropriate space, for completing individual course requirements and for confirming satisfactory progress in the course. The CMS, as a genre, is an informative text, informing students about course content, course objectives, course assignments, and course progress.

To be clear, the CMS does not need to function this way. In fact, Fisher (2007) argues that this is approach to the CMS is too narrow and misses opportunities to provide real-world/work-world collaboration/practices. But as long as instructors and administrators view the CMS as a genre which replicates the typical classroom or repository and emphasizes information delivery,

designers of these pre-packaged CMS interfaces have no incentive to design other models. The model they have seems to be the appropriate response to the recurring situation.

5 Methods

To determine how students at my institution understood the genre of the CMS that we use, a survey was constructed to inquire about both their use of the CMS and their use of other digital media platforms. The survey was designed collaboratively with two sections of English 113, which is a research writing course and the second course in the FYC sequence. The survey served as a model for the students of the process a researcher goes through while developing a data instrument. Students piloted the survey and provided suggestions for how to revise the survey to improve responses.

The survey was 16 questions, divided into three sections. The first section collected demographic information including class year, number of semesters the student had been enrolled, and student's major. The second section used closed-ended questions to collect information about the types of interfaces students used in four broad categories: social media interfaces, communication interfaces, document production interfaces, and miscellaneous web-based interfaces. Table 1 indicates the specific programs students were asked about in each of the broad categories.

Social Media Interfaces	Communication Interfaces	Document Production Interfaces	Miscellaneous Web-based Interfaces
Facebook	Microsoft Outlook	Microsoft Word or other word processing program	E-bay or other auction sites
Twitter	Web-based email	Microsoft Excel or other spreadsheet program	Pinterest
Instagram, Tumblr, Snapchat	Skype, Facetime, etc.		iTunes, Pandora or other music organizer
	Texting or Other Messaging Programs		YouTube

Table 1: Specific Interfaces students were surveyed about by Platform category

Students were also asked about the devices they used most frequently when engaging with those interfaces and the frequency with which they used the interfaces.

The third section of the survey asked specifically about students' use of Moodle, our university's CMS. The first 3 multiple choice questions asked how many of the students' instructors used the CMS; how frequently students accessed the CMS; and what their most common reasons for accessing the CMS were. Students were then asked to rank on a scale of 1-5 how easy it was to locate information they needed while on the CMS and to rank on a scale of 1-5 how similarly their instructors used the CMS. Finally, in two open-ended questions, students were asked to

describe what they liked about the CMS and what would improve their experiences using the CMS.

The survey was distributed electronically to my sections of FYC from 2014-2016. The FYC sequence is comprised of 3 courses. The standard path is ENG 103 and then a track, based on major, to ENG 113, research-writing oriented, or ENG 133, technical-writing oriented. Students were informed of the research project in class between week 8 and week 10 of the semester and then emailed an anonymous link with a request to participate. Reminders were sent the following week.

5.1 Participants

Sixty-eight students participated in this study, for a 26% response rate of all possible students in eligible sections. 37 male students, 29 female students and 2 who preferred not to answer took the survey. The majority of the students (73.5%) were enrolled in ENG 113 or ENG 133 and not surprisingly, a majority (73.5%) were freshman and 20.6% were sophomores, and 82.1% had been on campus 2 semesters or less.

5.2 CMS Context

Our university uses Moodle as the university-provided CMS. Our Moodle interface runs on a two or three column layout, depending on the page. Typically, the Navigation information appears on the left-hand column in the form of section/block titles (see Figure 1 below). These titles are defined by each teacher for each course. The middle column contains blocks of information, similar to a news feed, but these blocks are static, unless moved or hidden by the instructor. They do not automatically update as the semester progresses. The right column includes a series of widget-like boxes that allow a forum (but not page) search, a list of “upcoming events” (if assignment due dates have been set in the CMS by the instructor) and recent activity. Interestingly, while the interface looks feed-driven, it’s not. Nor is it menu-driven like many of the document production interfaces they interact with, but instead adds a layer of complexity by behaving like a simple website that uses side-bar links for navigation. While the design in many ways mirrors the computer-based format for many social media sites, because of its static content and its teacher-driven design, it functions much more like a website interface.

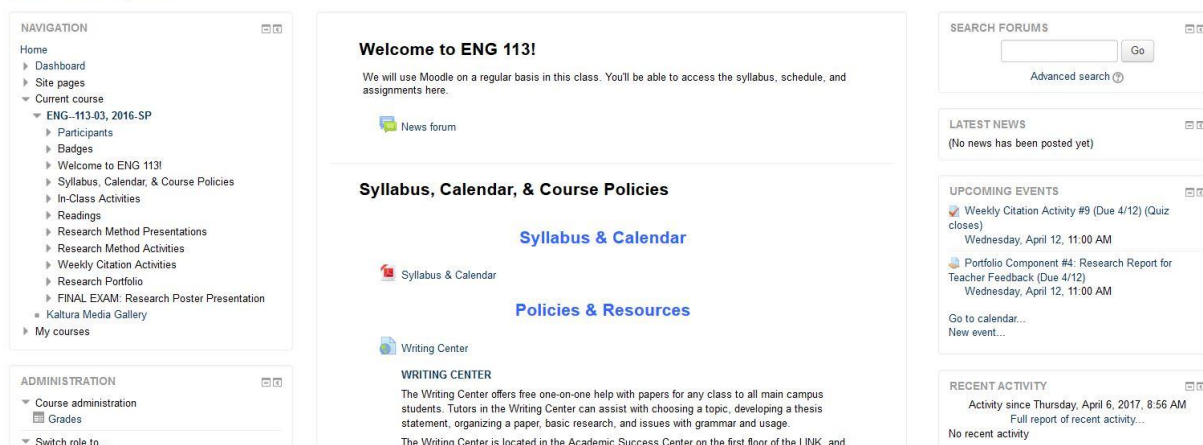


Figure 1: Moodle Layout—Student View

6 Findings

6.1 Student-Interface and Device Use

All students who took the survey reported using at least one of the interfaces described above and all students reported accessing various interfaces on different devices. However, their usage patterns and devices of choice varied consistently based on the perceived function of the interface.

Social Media & Entertainment Interfaces. Access to social media interfaces like Facebook, Twitter, Instagram, Tumblr, Snapchat, etc. was reported by all students, with 94.1% of students reporting use of at least 2 different social media interfaces. In terms of entertainment interfaces, YouTube was the only interface across all types to be used by 100% of student respondents, while 92.1% accessed some type of music organization/playback interface. The majority of students reported accessing both of these interface types on a daily basis. The device used to access each type of interface varied slightly with the majority of students (79.1% for Facebook; 90.9% for Twitter and 93.7 for Instagram, Tumblr, and Snapchat) reporting the use of smartphones to access social media interfaces. Entertainment interfaces were reported at a more even split between laptops and smartphones (65.2% laptops for music players and 53.7% for YouTube).

School/Professional and Communication Interfaces. School and professional work interfaces showed a much different pattern of use from social media/entertainment interfaces. A majority of students (98.5%) reported use of document production software like Microsoft Word and similarly large percentage (97.1%) reported use of Microsoft PowerPoint or similar software. Similarly, 94.1% of students reported using some form of web-based mail interface and 82.45 reported using Microsoft Outlook. For synchronous communication, 97.1% of surveyed students

reported use of texting or messaging programs and 86.8% reported use of video chatting interfaces. With the exception of texting, which was most frequently reported to be used on an hourly basis, students were more likely to report weekly rather than daily use of these particular interfaces. Further, their device of choice to access these interfaces was significantly different from the social media/entertainment interfaces. Overwhelmingly, students chose laptops, with a small number also choosing desktop computers, as their preferred access method for document production software and Microsoft Outlook. Web-based mail and video chat programs were used more evenly across devices with 51.6% reporting laptops as the preferred method for mail and 47.5% reporting laptops and 47.5% reporting smartphones as the preferred method to video chat, while texting/messaging interfaces were more likely to be accessed by smartphone (98.3%).

Student Moodle Experiences. All students reported that they were using the university’s CMS in at least some of their courses and that at least 2 of their instructors used the CMS in some way, with 37.7% indicating that at least 5 of their instructors used the CMS. Most students (91.3%) accessed the CMS interface using a laptop or desktop computer and tended to access the interface on a daily basis. Students indicated that there were several common reasons for accessing the CMS. Figure 2 shows that the most common reasons to access the CMS were to complete course work or to find information necessary for completing course work.

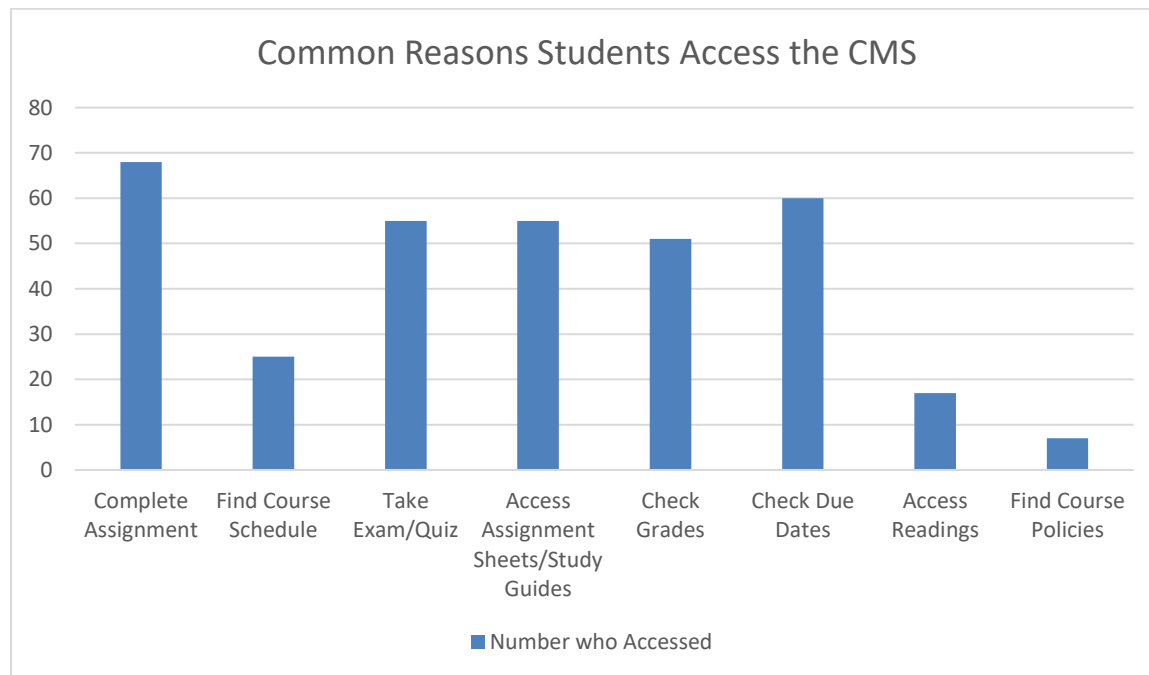


Figure 2 Number of Students who Accessed the CMS for Particular Reasons

Participants were also asked how differently each of the instructors used the CMS. Most frequently, students chose the middle of the scale indicating that instructors showed some noticeable variation in their use and design of the CMS and the majority of students (69.1%) indicated that use varied from moderate to significant variations. Additionally, in the open-ended

questions about what students would like to see improved, there were several comments about teachers' differing uses of the CMS including "If all the teachers used it"; "uniform organization among all teachers"; and "If professors were consistent with how they organize information." Such comments indicate that students notice and have trouble with the different approaches their instructors take when using the CMS interface.

In addition to students' responses to the use by instructors, they had strong reactions to the design and functionality of the interface. One of the common responses to the open-ended question about improving the CMS related to layout and functionality. Fifteen students indicated that the layout was confusing or not user-friendly, while an additional 3 explicitly commented on the layout being outdated. Additionally, a small group of students (5) requested mobile device compatibility and notifications as their desired improvement. Based on their responses to how various instructors use/don't use the interface and their experiences as users, it's clear that students who took the survey experienced at least minor, if not more major, navigational and use issues with the CMS, stemming both from the design itself and from the variation in how the interface is designed and used across their classes.

7 Discussion

The results show that students who participated in the study have two very distinct sets of practices when it comes to technology and interfaces—social and entertainment use are heavily tied to their mobile devices whereas school and professional work are almost exclusively associated with wired or full-size devices. Carpenter (2009) argues that scholars and students often differentiate between home and school literacies, as if they are two separate sets of practices, which these results seem to reflect. The data from the current study indicate that students are using particular devices and interfaces for particular purposes and that they tend to define the appropriate genre or tool for a particular action fairly rigidly.

However, the CMS presents an interesting challenge to these sets of practices that students have defined. Because our CMS interface blurs the borders between these two sets of practices—using a social-media-influenced design that works like a web-interface for a school purpose—students struggle to successfully determine both the purpose/function of the CMS and how to classify the CMS generically. Students, because of genre clues within in the CMS, like the column-based organizational structure and the due-date system that provides time-responsive reminders of what is due, see the interface as somewhat interactive and dynamic. Such an understanding is further evidenced by their primary uses of the CMS to complete of tasks/communicate learning to instructors, rather than to gather information. They view the CMS as a transactional interface, similar to those for social media. Their requests to have the interface be more mobile-friendly and to provide updates/reminders much like their other social media and communication interfaces indicates that they see the interface functioning in a more dynamic and responsive fashion.

Although students tend to connect the interface with social media interfaces, their primary device of access is the laptop or desktop computer, which more clearly aligns with their school/professional interface practices. And the typical content for the interfaces would support their reading of this interfaces as a school/professional space. The interface is designed to be and used as a static space where material and information are placed for reference or use by students as they need it. Adding to the potential confusion, the CMS is often positioned in the course, by how an instructor lays out and uses the interface within the context of the course as a school/professional interface. Setting up the interface as a site for completing work cues students that the interface operates more like the document-production interfaces they associate with school/professional work. Thus, there is some mixing of what are typically distinct sets of practices that are determined by how students are reading the genre of the interface. Students are being cued in some ways to read the interface as dynamic and responsive, and also potentially informal, while simultaneously being cued in other ways the interface necessitates a school/professional response that situates them more as a passive consumer of information.

8 Conclusions

To this point, the ways students read and interact with interfaces has been the focus, but this lack of clarity in the interface poses problems not only students, but also for instructors who are seeking to define the role of the CMS in their courses. Unlike, for example, a textbook (information delivery) or essay (skills-acquisition or content-knowledge assessment), the CMS does not always have a clearly defined role in a course's design, nor do students necessarily have the same conceptions about how the genre functions in the course as the instructor. Such inconsistency in defining the genre of the CMS is evidenced by the students' comments about the variability of how and why instructors used the CMS. While variation is certainly to be expected across disciplines and course types (face-to-face; hybrid; and fully-online), this variation further confuses students looking for cues across their courses to help them negotiate the unfamiliar genre. If the genre of the interface is unclear to the instructor, meeting genre expectations and using the genre effectively would be nearly impossible and would make integrating the CMS into the course in a meaningful or useful way for the students difficult. Essentially, if we don't know what the CMS should do in the course, we can't design or utilize it effectively and we certainly can't communicate to students how to learn, understand, and use the genre.

Situating the CMS interface as a genre, rather than simply a tool for producing genres changes both the way it is seen pedagogically and the ways it is deployed in the classroom. When the CMS is situated as a genre, the emphasis shifts from its technological affordances to what it does or how it is used in particular context for particular people. Viewing it this way necessitates considering its users, both instructor and student, and they ways in which they perceive both their roles within and the functions of the interface in a given class context.

In order to more effectively help students understand and engage with the CMS interface as genre, instructors need to (1) be aware of the two sets of technology practices students regularly employ when designing the CMS for a course and (2) clearly articulate the course/instructor expectations for the CMS and why they may be different from other courses, as well as provide opportunities and motivation for students to engage with and learn about the CMS as a genre.

8.1 CMS and Student-Technology Practices

In the 1970s, Wilfred Hansen (1971) coined one of the basic rules of interface design: “know the user.” As instructors who are setting up CMS interfaces for classes, it is essential that we acknowledge that our students have very distinct sets of technology practices. As this study has demonstrated, students tend to view the CMS as a responsive space, but simultaneously use it as a static, school/professional space. More recent scholars (Rosinki and Squire, 2009; Williams, 2014; Lynch, 2015) suggest that educators setting up and designing interfaces must think about students’ levels of expertise/familiarity with particular genres, preferences for accessing information within the interface, access limitations, and preferred file formats, etc., as well as the previous genre knowledge and expectations students are bringing with them. As evidenced by the data from this study, it is also essential that instructors consider the device students use, and the device they prefer to use, to access the interfaces and how that particular device suggests a particular set of practices and genres to them.

I further contend that instructors need to consider how their design and use of the CMS interface affects students’ perceptions of its functions. Instructors must consider not only what the interface looks like and that it completes particular classroom/administrative functions like record-keeping and assignment submission, but also how their design and use are communicating the roles students should take within the interface and how students should use the interface. Hansen (1971) reminds us that our users/students are human, prone to forgetting and making mistakes, so the interface they encounter should be designed to remind them how to complete particular tasks by using familiar structures or cues. Further, Fisher (2007) argues that “how students assign significance to the content they encounter in class has much to do with whether they, in Gee’s words, “like” it or find it “acceptable” given their purpose for engaging in the schoolgoing activity” (p. 181). Students are actively seeking clues from the interface design itself to read what is expected of them and where to locate particular items or information within the interface. So while CMS interface design is somewhat arbitrary, it matters to students because it helps them understand the genre of the interface and how they are expected to position themselves and respond.

8.2 CMS as Genre-Learning Opportunity

In addition to considering students’ technology practices when designing a CMS interface layout, instructors should also emphasize to students the role the CMS plays in the course. Danielle DeVoss, Ellen Cushman and Jeffrey Grabill (2005) argue that “Writing within digital

spaces occurs within a matrix of local and more global policies, standards, and practices. These variables often emerge as visible and at times invisible statements about what types of work are possible and valuable (encoded, often, in curricula, assessment guidelines, standards, and policies)” (p 16). Similarly the CMS interface both implicitly and explicitly speaks, through its design and use of genre conventions to what is valued and what counts as “work” in a course. Thus, instructors should, as Lynch (2015) argues, make explicit to students how software shapes our interactions with texts and with each other. This begins with identifying, as the instructor, how the CMS interface functions in the class, based on the institutional, technological, and personal constraints of the teaching context. Once a determination has been made about how the CMS should function, genre clues, in layout, design, and content, must convey the function of the CMS to students. Additionally, instructors should explicitly inform students how the CMS will function in the course, explaining the generic conventions of the CMS for that particular class. Such an approach mirrors suggestions by multimodal scholars including Bronwyn Williams (2014) and Justin Hodgson (2010) that instructors teaching students about genres need to engage directly with students about the conventions of specific genres. Further, instructors should discuss why it may function differently from other courses, addressing issues such as the student-teacher dynamic in the course; the course objectives; and the course content as reasons the genre might be employed differently by different instructors in different courses. Such a discussion can lead to opportunities for students actively explore the differences between different uses of the CMS or different CMS interfaces, examining the CMS as text designed to accomplish particular purposes rather than a tool for simply producing other genres.

Resituating the CMS interface as simultaneously a genre and a tool for producing genres offers a unique opportunity for students to examine how a particular genre functions in a particular context, for particular people. Explicitly addressing the design and role of the CMS in the course becomes part of the learning that takes place in the course and can then extend to other interfaces or genres they commonly interact with. The CMS then becomes a tool not only for administrative functions, but a site for students to learn about how they read the world around them and about their own preferences and practices and how those are informed by prior experiences.

Acknowledgements

Special thanks to my Fall 2013 ENG 113 sections who helped develop the survey for this study; to the thoughtful table members at RNF 2016 who helped me frame this project more clearly, and to Dr. Sarah Young for her willingness to proofread.

References

- Bawarshi, Anis S. (2003). *Genre and the invention of the writer: Reconsidering the place of invention in composition*. Logan, Utah: Utah State University Press.
- Bawarshi, Anis S., & Reiff, Mary Jo. (2010). *Genre: an introduction to history, theory, research, and pedagogy*. West Lafayette, IN: Parlor Press.
- Bazerman, Charles. (1997). The life of genre, the life in the classroom. In Wendy Bishop and Hans Ostrom, (Eds.), *Genre and writing: Issues, arguments, alternatives*, (pp. 19–26). Portsmouth, NH: Boynton/Cook.
- Beach, Richard, Anson, Chris M., Breuch, Lee-Ann Kastman & Swiss, Tom. (2009). *Teaching writing using blogs, wikis, and other digital tools* (1st Ed. ed.). Norwood, MA: Christopher-Gordon.
- Berger, Warren, & Mau, Bruce. (2009). *Glimmer*. Canada: Random House.
- Carpenter, Rick. (2009). Electronic environments as interface. *Computers and Composition: An International Journal*, 26(3), 138-148.
- Devitt, Amy J. (2000). Integrating rhetorical and literary theories of genre. *College English*, 62(6), 696–718.
- Devitt, Amy. (2004). *Writing genres*. Carbondale: Southern Illinois UP.
- DeVoss, Danielle Nicole, Cushman, Ellen & Grabill, Jeffrey T. (2005). Infrastructure and composing: The when of new media writing. *College Composition and Communication*, 57(1), 14–44.
- Fisher, David. (2007). CMS-based simulations in the writing classroom: Evoking genre through game play. *Computers and Composition: An International Journal*, 24(2), 179-197.
- Haas, Mark & Gardener, Clinton. (1999). Moo in your face: researching, designing, and programming a user-friendly interface. *Computers and Composition: An International Journal*, 16(3), 341-358.
- Hansen, Wilfred J. (1971). User engineering principles for interactive systems. In *Proceedings of the Fall Joint Computer Conference* (pp. 523–532). Montvale, NJ: AFIPS Press.
- Hodgson, Justin. (2010). Reculturalizations: ‘Small screen’ culture, pedagogy, & YouTube. *Enculturation*, 8. Retrieved from <http://enculturation.net/reculturalizations>
- Lynch, Tom L. (2015). Where the machine stops: Software as reader and the rise of new literatures. *Research in the Teaching of English* 49(3), 297-304.
- Miller, Carolyn. (1984). Genre as social action. *Quarterly Journal of Speech*, 70(3), 151-167.

- Nobles, Susanne & Paganucci, Laura. (2015). Do digital writing tools deliver? Student perceptions of writing quality using digital tools and online writing environments. *Computers and Composition: An International Journal* 38(A), 16-31.
- Norman, Donald A. (2002). *The design of everyday things* (Rev. ed.). New York: Basic Books.
- Pigg, Stacy. (2014). Emplacing mobile composing habits: A study of academic writing in networked social spaces. *College Composition and Communication*, 66(2), 250-275.
- Rosinski, Paula & Squire, Megan. (2009). Strange bedfellows: Human-Computer interaction, interface design, and composition pedagogy. *Computers and Composition: An International Journal*, 26(3), 149-163.
- Selfe, Cynthia L. & Selfe, Richard J. (1994). The politics of the interface: Power and its exercise in electronic contact zones. *College Composition and Communication*, 45(4), 480-504.
- Williams, Bronwyn. (2014). From screen to screen: Students' use of popular culture genres in multimodal writing assignments. *Computers and Composition: An International Journal*, 34(), 110-121.
- Yates, JoAnne., & Orlikowski, Wanda. (2002). Genre Systems: Structuring Interaction through Communicative Norms. *Journal of Business Communication*, 39(1), 13-35.