**Question 1:** Much of the scholarship on rhetoric and technology addresses shifting notions of literacy and what it means to be literate. Drawing upon 4-5 scholars from the course, focus your discussion on two of the following.
o   How we teach
o   How we communicate

Advancements and changes in technology change the way we communicate, and our approach to teaching. This results in a shift of our views of literacy/literacies and approaches to both the understanding literacy and of rhetorical strategies needed to teach, and use these new literacies. Through the works of Hawisher and Selfe (1991), Kathleen Blake Yancey (2004), Stuart Selber (2004), Kathleen Blake Yancey (2009) and Sarah Arroyo (2013) we see that the these shifts in literacy, and the relationship between technology and rhetoric is not a new topic of conversation. Rather it has been present in rhetoric and composition for many years. The purpose of this paper is to analyze the ways in which technology shifts how the concept of literacy based on how we communicate, and how these shifts change how we teach.

In “Writing in the 21st Century” (2009) Kathleen BlakeYancey brings to our attention that “historically, like today, we compose on all available materials” (p. 8). Technology continues to change the ways in which we communicate and compose by providing many mediums and opportunities to do so. As a result our understandings of literacy and how to teach it need to reflect the available materials the public uses to communicate. Yancey observes that “with digital technology and, especially web 2.0, it seems writers are everywhere,” which is significant because a large majority of student writing occurs outside of an institution (p. 4). This writing “belongs to the writer” and is social due to the fact that it occurs “on the page and on the screen and on the network” (p. 4). Web 2.0 provides many opportunities to write, and this writing is shared. The shared, or social nature of this type of composing provides an audience that is everywhere, much like the opportunities to compose (p. 4). Yancey describes these compositions as “newly technologized, socialized, and networked,” which results in a demand to “respond to these new composings and new sites of composings with new energy and a new composing agenda” (p.8). How we communicate and compose needs to be reflected in how we teach. A simple, or obvious solution to this type of writing is to include it in our curriculum. However, the push for an immediate response and inclusion of technology, or uses of technology that are occurring outside the university bring about problems on their own. We can’t ignore the way technology changes how we communicate, write, and its impact on literacy. At the same time we also can’t blindly follow technology trends. This specific area of concern is not new to rhetoric and technology. Hawisher and Selfe in 1991 expressed concerns over an eagerness to place computers in the composition classroom. Their article addressed some of their concerns based on the growing role and importance of the computer in the composition classroom, and the potential such a technology had to change how we teach.

Hawisher and Selfe’s (1991) article “The Rhetoric of Technology and the Electronic Writing Class” bring to our attention the idea that the technology (computer) used in a classroom “reinforces those traditional notions of education” in which “teachers talk, students listen; teachers' contributions are privileged; students respond in predictable, teacher-pleasing ways” (p. 55). This is problematic because the implementation of a technology has created boundaries as opposed to promoting freedom for students to explore and work with the computer in a way that encourages their development of multiliteracies. Hawisher and Selfe warn that instructors need to be aware of the “negative effects of using new technology” (p. 59), because of the danger of using computers “to deliver drill-and-practice exercises to students” (p. 59), as opposed to using technology to enhance the experience of the student. The computer should not replace previous approaches to teaching, but it should enhance them. The way to circumvent this type of use of the computer requires instructors to “plan carefully and develop the necessary critical perspectives to help us avoid using computers to advance or promote mediocrity in writing instruction” (p. 59). This requires instructors to think beyond using technology for the sake of including it in their classroom, because it is new, exciting and seemingly helpful or beneficial to the student. Hawisher and Selfe were keenly aware of the impact the computer could have on how we teach. Their concerns of it changing the space instructors teach in lead them to urge that instructors address the computer and its usage with a “critical perspective on the problematic aspects of computer use” with a goal of gaining a “full understanding of how use of technology can affect the social, political, and educational environments within which we teach” (p. 64). The computer, and any technology used, should “improve the educational spaces we inhabit,” (p. 64), and despite the age of the Hawisher and Selfe (1991) article, their concerns continue to resonate in rhetorical and technology because we shouldn’t respond to shifts by blindly or gullibly implementing technology without looking beyond affordances. Their article is especially important moving forward when demands to respond to calls regarding the shift in literacy that followed as the computer, and the Internet, became more ingrained in society and the classroom.

Yancey (2004) in “Made not only in words: Composition in a new key” addressed the importance of moving away from alphabetic text only. Yancey declares that “we are digital already,” (p. 307), which means that continued conversation surrounding the “literacy associated with screen” and how such a literacy “leads us to question what we know” is vital (p. 304). While the influence and use of technology is vital to this discussion, it must also be noted that this address is just as equally rooted in the changes in how we communicate, and write. When “members of the writing public have learned—in this case, to write, to think together, to organize, to act within these forums—largely without instruction” and more importantly “without our instruction” (p. 301), then the way we, students and instructors, communicate and write has shifted to a point in which we can no longer ignore. Such an observation, and appeal seems obvious now, but in 2004 this important in understanding that the public possesses “a rhetorical situation, a purpose, a potentially worldwide audience, a choice of technology and medium,” and that the writing of students is social then we should pay closer attention to the ways in which the public and academic writing of students converge (p. 301). How we communicate, and the changes in how we write force us to rethink literacy, and not only how we teach when we incorporate literacy of the screen, but also what we teach. Yancey urged that this could not be written off as “something technical, and outside the parameters governing composing,” and that we could either be part of the moment, or not (p. 320). Yancey’s address is the type of urgent call that is important to the field, and it clearly captured a major turning point in how we understand literacy, and how we teach it, but as Hawisher and Selfe observed years earlier this type of call also requires us to think critically before rushing to implement these principles within curriculum.

2004 proved to be an important year for rhetoric and composition and scholarship on its relationship between rhetoric and technology. Stuart Selber (2004) in *Multiliteracies for a Digital Age* urges scholars to help students develop multiliteracies by changing their approach to using and integrating technology in the classroom. Selber provides a theoretical framework for how to include technology in curriculum, and move these multiliteracies beyond a functional level. If what and how we teach remains at a functional level, then it would limit the student, and make their use of the computer more “proceduralist,” which reinforce the “systematic power” of using such a technology (p. 43, p. 46). Instead, he argues that how and what we teach should be at a critical and rhetorical level. At the critical level “students might be encouraged to recognize and question the politics of computers” (p. 75). This critical awareness of computers, and technology in general, is as necessary in 2004 as it is now. Due to the use of various types of technology in the daily lives of students it is important to question the impact of technology beyond the practical uses. When a student develops a rhetorical awareness of technology the user/student possess the ability to “effect change in technological systems” (p. 182). They become a “reflective producer of technology” (p. 182). The theoretical framework Selber provides helped to establish that students should be questioners of technology (critical literacy), and rhetorical in the way that they understand the implications of technology. Selber argues, “if students are to become agents of positive change, they will need an education that is comprehensive and truly relevant to a digital age” (p. 234). This comprehensive education must be different than what is taught with the alphabetic text essay. Therefore what we teach must change, and it should continue to shift along with the demands of the changing notions of literacy. The learning objectives, and elements taught must be different, or else the student only learns how to transfer an essay to a different genre, or format. Selber’s main argument is to develop a curriculum that goes beyond the functional level because how we think about technology, and how we communicate using technology in our daily lives influences how we communicate with our students. When we incorporate technology, and do so in a way that aims to help students develop multiliteracies at a critical and rhetorical level it will change not just what we teach, but how we do it.

In the work of Sarah Arroyo it is evident that moving forward the field responded to the calls of Yancey and Selber. In Arroyo’s (2013) book *Participatory Composition: Video Culture, Writing, and Electracy* shediscusses participatory composition, and the connectedness of students that alters composition classes. Again a scholar sees that as technology continues to evolve, and with it the ways we use it, and how we communicate. In 2004 Yancey understood that writing was becoming increasingly social in the online world, and Arroyo sees this as increasingly prominent as a result of video culture. Arroyo uses Ulmer’s concept of electracy as the theoretical framework for her work. Electracy, for her, is a concept that “can be compared to digital literacy but encompasses much more: a worldview for civic engagement, community building, and participation” (p. 1), which further proves that notions of literacy continue to shift and change in relation to how we use technology to communicate. The concept of electracy is central to her work, and influences what she writes on how we teach. In chapter four of her book she explains that electracy is different than print literacy. Therefore, the time for a theory to turn into a practice commonly associated with pedagogy pertaining to literacy and composition is not needed with electracy, because the “notion changes from a theory into a practice to a practicing theory as it is emerging” (p. 104). The approach to how we teach in electracy is different than print literacy, because as Arroyo argues that electracy offers us a chance to work with “established forms as well as inventing new ones as they become timely and necessary” (p. 111). Essentially some of our theory and practice needs to catch up to the technology, or evolve alongside it as opposed to reacting to it after the fact. This is a step away from the critical and careful approach Hawisher and Selfe want instructors to use.

The articles and books written by these scholars demonstrate that technology changes how we communicate, and that change will always impact how we teach. The concerns over time have not changed so much from scholar to scholar that these issues are no longer important. Despite the age of some sources, it is apparent that the field has continually struggled with how to adapt to shifts in literacy and the impact of technology in the classroom with the caution necessary to be critical, and the urgency needed to incorporate technology that quickly changes.

**References**

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