This dissertation aims to fill the gap between a multiliteracies approach to first-year composition curriculum, which often includes a multimodal or multimedia assignment/assignments, and/or writing practices that incorporate elements of digital rhetoric, procedural rhetoric, and electracy. The gap exists as a result of privileging one approach or theory over the others in an attempt to incorporate multiliteracies, multimodal composition, or multimedia composition. Often times there is overlap among the different approaches, as they each have similar goals. (ADD WORKLIFE)

**Multiliteracies and Digital Literacies**

The New London Group’s 1996 article, “Pedagogy of Multiliteracies: Designing Social Futures” published in the *Harvard Educational Review* marks an important milestone in the consideration of literacy and literacy pedagogy.Comprised of a group of scholars from various disciplines and around the world, the New London Group not only coined the phrase “multiliteracies,” but also made two significant statements regarding changes in literacy pedagogy in response to the emergence of a globalized society. They first state that the purpose of education is to provide students with knowledge that will allow them to enter and participate in public, community, and economic aspects of life (p. 60). In a more globalized society the knowledge students need to enter these arenas is different than what may be required in educational settings. In order to achieve this educational goal, the new literacy pedagogy must address a “textual multiplicity” (p. 61 ), because in a globalized society a multitude of linguistic practices accounts for a changing work life; and for students to be able to succeed and/or enter this new work life they must learn and practice a new literacy to account for the “multiplicity of discourses” (p. 61). It is this approach to the purpose of education that drives their understanding of literacy and its functions.

Multiliteracies and the “metalanguage” students need to gain employment must go beyond alphabetic text and must include “modes of representation much broader than language” (p. 64). The metalanguage needed to reflect these new literacy pedagogy practices is based on concepts of design due to the increased role of technology, and incorporation of different types of media in the personal and work lives of students. With design as a framework for the New London Group’s approach to literacy, there is room for a curriculum that reflects more closely the writing and communication practices and experiences of students. Specifically, paying close attention to how students interact within their chosen/given discourses. The importance of their approach goes beyond literacy pedagogy changing to include different types of literacies beyond traditional alphabetic texts of reading and writing.

The New London Group (hereafter NLG) does not only point to a need for a change in literacy pedagogy, they also provide suggestions for how to guide this change. More specifically, the NLG’s use of design as the basis for their metalanguage of multiliteracies allows them to answer questions about what students learn in this new literacy pedagogy and how they will learn it. The NLG break up the what and how of their new literacy pedagogy into three categories of design concepts: available designs, designing, and the redesigned. Available designs are made up of the resources used for design, such as grammar and orders of discourse. Orders of discourse can be understood as a “structured set of conventions associated with semiotic activity,” with what the goal of attempting to capture the ways in which different discourses relate to each other (p. 74). Conventions of design can be found within orders of discourse. These are found in genres, styles, dialects, and so on (p. 75). The NLG describe the process of design as reliant upon available designs, but never a replication of the available designs. Therefore, Designing is the process by which one “recognizes the iterative nature of meaning-making by drawing on Available Designs to create patterns of meaning” (p. 76). According to the NLG Designing is dependent upon Available Designs, always includes Available Designs, and creates new meaning and use of old materials (p. 76). If a product of Designing is creating new meaning, then the Redesigned can be understood as a “transformed meaning,” (p. 76) which is the result of reproducing Available Designs. The Redesigned is “founded on patterns of meaning,” (p. 76) which are made or created through Designing and Available Designs.

The NLG’s concept of design used here is similar to Aristotle’s definition of rhetoric, as the “available means of persuasion,” but for the NLG, the available means are what a student uses to design or compose a text. I use design and compose interchangeably here because I see similarities between the NLG’s categories Available Designs, Designing, and the Redesigned and composition studies. The NLG’s concepts of design are similar to the writer’s process of making meaning out of and using alphabetic text, modes of communication, and citing sources to support his/her position.

When the NLG state that “classroom teaching and curriculum have to engage with students’ own experiences and discourses,” (p. 88) this opens the door for the changes in literacy pedagogy they discuss at the start of their article. The “modes of representation broader than language” (p. 64) are changing, and they will continue to change because the experiences of students will change along with their relationship to technology. These modes of representation are representational forms that are significant in communication (p. 61).

The concept of representational forms often appears in works that explore multimodal composition, wherein a number of different modes of communication are combined to create a singular message. The modes of communication, when used together to create meaning and communicate a message, broaden our understanding of literacy and our literacy practices as the NLG called scholars to do.

Years later in *Working with Multimodality* (2013) Jennifer Roswell refers to *“*modes of representation” as modes and defines a mode as a “unit of expression” (p. 3). This approach to modes as expressions and representations used to make meaning, and communicate, falls in line with the NLG’s observation that these modes can be, but are not limited to, images, images with text, interfaces, and other forms used to make and communicate meaning. Roswell, in addition to numerous other scholars missing something here to finish up….

Advancements in technology continually change the experiences of using computers, computer software, and digital spaces, which impacts how students learn to make meaning, practice communicating, and experience their discourses.

The NLG, pointing to a direct correlation between a student building or developing multiliteracies and their ability to successfully enter public, community, and economic sectors creates a space for subsections and approaches to literacy pedagogy to follow. The importance of “Pedagogy of Multiliteracies: Designing Social Futures” is that it allows for the understanding of literacy to now include the teaching of other modes, forms, units of expression which can lead to students developing multiliteracies, using new/different software, questioning their relationship to technology, and practicing composing in non-alphabetic text.

Wysocki and Johnson-Eilola (1999) also call attention a basic understanding and approach to literacy as the ability to read and write. They find that this type of conceptualization of literacy and literacy pedagogy is dependent upon the notion that “if we acquire the basic skills of reading and writing—if we are literate—we have, or will have, all the goods the stories bundle together, no matter who or where or when we are” (p. 352). When treating literacy as only the ability to read and write it leads to what Glenda Hull calls the “intellectual equivalent of all-purpose flour,” by assuming that “once mastered, these skills can and will be used in any context for any purpose” (p. 34). Viewing literacy as a generic skill necessary for participating or succeeding in a professional or personal setting is problematic for Wysocki and Johnson-Eilola, because they would disagree that everyone has access to certain generic skills are required for access to specific professional, or academic spaces. Or, that a student acquiring these skills are enough to successfully participate in these spaces.

Wysocki and Johnson-Eilola argue that this “all-purpose” approach to literacy will now be transferred to technological literacy. Simplifying literacy as only a skill needed to level the playing field for all does not allow for a broader understanding of factors that impact students’ socioeconomic status, nor do these specific types of literacies take into account the level of access a student might have to software, computers, and devices used to develop technological literacy. Wysocki and Johnson-Eilola see “technological literacy” or “computer literacy” as an attempt to “give others some basic, neutral, context-less set of skills whose acquisition will bring the bearer economic and social goods and privileges” (p. 352). They raise questions about what we want or should want from the pairing together of literacy and technology, because while these types of literacies may be seen as necessary developing a technological literacy does not equate to transferability to any and all situations and contexts. This literacy or that literacy does not take into account the type of access students must have to enter the public, civic, or professional sectors the NLG references. Therefore, it is unwise to approach these types of literacies and new literacy pedagogies as part of a skillset to gain access or success in personal, professional, and academic settings. Instead, what is needed is [Your ideas here- very important to frame the discussion]…….

The technological or digital space differs from a real space, and so we need to learn and teach students how to navigate these spaces. To do this we must take on a new view not only of literacy, but of how we interact with, in, and around our literacies. Wysocki and Johnson-Eilola explain this as the ability to see ourselves not as “moving through information, but as moving through it and making and changing conscious constructions of it as we go” (p. 366). They feel this will allow for the shift towards seeing ourselves as participants active in our literacies, which helps to set up literacy as a “process and representations in social spaces” (p. 367) and to combat the view of literacy as a skill obtained in a vacuum where outside factors and influences go unaccounted.

It is important to take notice of Wysocki and Johnson-Eilola’s concerns because while the multiliteracies and metalanguage of the NLG’s new literacy pedagogy does not necessarily point to literacy as only a skill, the NLG does make a strong connection between multiliteracies and entering a new worklife. The connection between the need for multiliteracies to enter worklife
 speaks to the functionality of multiliteracies and the metalanguage used within them.

 In terms of access, it must also be noted that the NLG does not mention digital only modes of representation; access to computers, software, and digital spaces that allow for this type of communication, composition, and multiliteracy building is of equal concern. If access to these is needed for students to build multiliteracies and enter the new worklife, then how can those without access enter and succeed in a new worklife? The NLG literacy pedagogy may appear functional, and it certainly can be understood that multiliteracies and the metalanguage that make them up will equate to viable employment, social and public life for students. However, to change literacy pedagogy the NLG must justify a shift in thinking. Taking aim at the preparedness of students to enter the work world helps to strengthen their claim that new literacy pedagogy is not only a necessary but also an urgent issue.

In 2004, Kathleen Blake Yancey and Stuart Selber (answer the call of the NLG when they) research and write about the concepts of multiliteracies and modes as language representation (as a result in shifts in technology use/availability that) as they impact writing practices in the early 2000s. Both Yancey and Selber recognize a shift in rhetoric and composition as brought on by technological advancements affecting the ways people communicate. An increased use of computers, computer software, and participation in digital and/or online spaces bring about a demand for theories of digital multiliteracies to be developed (Selber) and for composition instruction to move beyond the realm of alphabetic text only. Modes of representation are revisited in Yancey’s (2004) “Made not only in words: Composition in a new key and the need for multiliteracies to be developed in composition courses are addressed in Selber’s (2004) *Multiliteracies for a Digital Age*.

Yancey (2004) in “Made not only words: Composition in a new key” recognized the field of rhetoric and composition to be in a moment of change, whereby scholars could embrace the shift of moving away from alphabetic text only. This moment centers around the opportunity to include multimodal composition in first-year composition courses in an attempt to help students develop multiliteracies. Yancey states “the screen is the language of the vernacular” (p. 305), and despite this not being a new assessment in 2004, she proclaimed that “we are digital already.” Yancey’s Conference on College Composition and Communication President’s Address both called for and legitimize the inclusion of digital assignments in composition classrooms. Stating that we are “digital already” is similar to the NLG’s assessment that in a globalized society, work life is changing and demands a broadening of literacy pedagogy. Understanding that we are digital calls for us to change our traditional view on literacy and continue to embrace multiliteracies in whatever forms they need to be developed. Yancey believes this is possible by embracing composition that is not only alphabetic but also this call helps to place multimodal composition as a necessary practice in composition classrooms, because students “compose words and images and create audio files on web logs (blogs), in word processors, with video editors and we editors” (p. 298). Multimodal composition becomes a practice that Yancey views as needed inside the classroom, because of the amount of writing as well as the mixing of modes and genres, that take place outside of school. The internet, and other technological advancements allow for writers of all ages to compose, choose how to deliver their work to an audience via numerous platforms, and continue to interact with an audience. This type of writing may not be considered academic, but it is just as meaningful for developing multiliteracies. Yancy understood that the changes in literacy and technological advancements were tied together, and that these changes push the field toward a changing curriculum.

Stuart Selber (2004) focuses his attention on how composition curriculum can be developed in *Multiliteracies for a Digital Age*. The computer, its software, and the increased usage of technology in the digital age present new issues in literacy pedagogy such as access, determining what students should know and learn, and ultimately how to go about teaching students a new type of literacy. 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). Here again we see the role of literacy and education as a means to better equip students for the world they currently live in and will enter in their work life.

Again we also see that this education requires students enhance their multiliteracies. To do this Selber defined three types of literacies--functional, critical, and rhetorical-- to understand the goals of a curriculum that incorporates technology in the classroom. Selber suggests that we must move beyond the functional and critical literacies so that students can develop rhetorical literacies. A functional literacy occurs when a student “resolves technological impasses confidently and strategically” (p. 67). It is akin to developing the necessary skills to use a computer and its accompanying software. There is no questioning of the technology. The goals of Selber’s critical literacy are for students to become “critically literate” about the dangers of computers and “able to recognize and recognize and articulate the ways power circulates in technological contexts” through a heuristic approach that helps students develop a “metadiscourse” within the “parameters of a critical approach to computer literacy: design cultures, use of contexts, institutional forces, and popular representations” (p. 133). All of which essentially leads to students’ awareness of these elements of the computer, and computer software.

Rhetorical literacy concerns itself with design and evaluation of online awareness. It demonstrates students’ ability to be “reflective producers of technology” (p. 182) and earn agency as users and producers of technology, which is important because both critical and rhetorical literacy leads to empowering users of technology. Empowered users of technology can make better choices about what they use, and how they use it to communicate because they are using the computer as a rhetorical device. Essentially, the computer and its numerous software or communicative uses become part of the students’ arsenal of available means to compose/write.

Selber’s (2004) comprehensive education differs from the traditional approaches associated with alphabetic text because it attempts to empower students as users and help them view computers, software, and digital spaces as rhetorical.

It is no coincidence that following these strong calls to move away from alphabetic text and the increased reliance upon interfaces and digital spaces for communication that there exists a trend in digital rhetoric to focus on specific technological platforms, their affordances and drawbacks. The focus on technology’s role in rhetoric and composition bring about concerns about the role of technology in composition classes. Specifically, if the implementation of more technology in the composition classroom is beneficial to students or if the reliance on technology is somehow detrimental. These concerns are not new, and have been around since the computer became more prevalent in the composition classroom. In “The rhetoric of technology and the electronic writing class” Gail Hawisher and Cynthia Selfe (1991) express concern over the “new electronic classrooms” (p. 55) and its impact on how writing instructors teach writing. They warn of the integration of technology in the classroom leading to an overreliance on technology. Their advice to writing instructors is to be aware of the positive *and* negative influences computers may have on the writing classroom. They note that leading up to the time of their publication there was an overwhelmingly positive depiction of the role of the computer, and technology, in these so-called electronic classrooms. Based on their observations they were surprised by the amount of writing taking place in the classrooms with computers, and lack of interaction between instructors and students.

However, according to Hawisher and Selfe, the large amount time spent writing in class limited the opportunity for the students to discuss writing with their instructors, and they noted there were no “careful two-way discussions of the writing problems students were encountering” (p. 60) as a result of the over reliance on the implemented technology in the classroom. Their observations of the approaches of instructors teaching in these electronic classrooms leads to a call to “plan carefully and develop the necessary critical perspectives to help us avoid using computers to advance or promote mediocrity in writing instruction” (p. 62). Overall their view of computers in writing classrooms is positive, but they point to a lack of critical awareness of the ways in which computers in the writing classroom may change pedagogical practices.

This specific weariness of technology integration is not uncommon. The appeal of a new technology, and/or new a approach to a preexisting theory is undeniable. The field must carefully consider the temptation to implement a new technology and pedagogy associated with it. When considering its impact there are numerous discussions about defining terms and writing practices to clearly identify specific goals and affordances of adding them to first-year composition curriculum.

**Multimodal Composition**

The NLG, Yancey, and Selber point to areas that warrant the attention of first-year composition instructors in an effort to encourage them to implement assignments that reflect the changing the views of literacy in relation to students’ writing practices and use of technology. To do this they ask composition instructors to create assignments, or at the very least embrace assignments that incorporate new or newer meaning making practices available to students by the advances and development in technology. These advancements and developments directly impact and change communication and meaning making practices, and as such these practices need to be reflected in first-year composition courses.

Their critique presents a unique challenge because the broader view of literacy dictates that curriculum incorporate writing practices that also must reflect the student’s relationship with technology to develop digital multiliteracies. In an effort to develop multiliteracies students must also become empowered users of technology, which results in discussion about how to achieve this difficult task. What does this curriculum look like and what types of assignments allow for a development of multiliteracies as Yancey and Selber ask? What kinds of assignments would broaden the scope of literacy pedagogy as the NLG urges? Does this curriculum include alphabetic only texts? These are important questions to ask when considering how to approach changes in first-year composition curriculum, and are the driving force behind this dissertation.

 Often the curriculum changes implemented add multimodal composition assignments in first-year composition classes as a means to include new media composing practices. There appears to be a correlation drawn between incorporating or embracing the use of current and available technology and multimodal composition. The two, as I see it, are linked in that the reasoning for embracing both have some overlap. Implementing the use of current and available technology, be it new software, platform, or device in a composition classroom to develop multiliteracies/digital multiliteracies is similar in concept to asking students to compose by mixing modes in an effort to embrace changes in communication practices. In the years since Yancey’s address and Selber’s book, the field has come around to using and including multimodal composing practices. However, there is still much debate about what is multimodal composition; as a result there is no agreed upon definition. Each definition of multimodal composition presents a different approach and perspective on multimodal composing practices. Each definition and view of multimodal composition, and multimodal composing practices attempt to answer in some part the calls of the scholars and questions mentioned above.

Claire Lutkewitte in *Multimodal composition: A critical sourcebook (2013)* defines multimodal composition as “communication using multiple modes that work purposely to create meaning” (p. 2). The inclusion of multimodal composition practices, and multimodal composition assignments in composition classrooms creates various concerns, such as what we need to pay attention to and what to include as multimodal composition. Lutkewitte warns against treating multimodal composition as an “extension of traditional composition,” which means that while some may see us always having been multimodal this does not mean we can transfer what we know about alphabetic text to multimodal composition. By using different modes to compose, and teach composition the conversation shifts towards how we teach these practices.

To avoid becoming complacent with the concepts of multimodal composition, in *On Multimodality* (2014) Jonathan Alexander and Jacqueline Rhodes urge the field to explore “other possibilities for expression, for representation, for communicating, for making knowledge” (p. 7), Rather than placing too much emphasis on one mode, such as video, Alexander and Rhodes suggest that our focus should be on moving towards different types of multimodal composition practices preparing us to move beyond multimodal. Alexander and Rhodes push for the field to “pay attention to specific rhetorical and production capabilities of new and multimedia” or else we risk not fully understanding the benefits and challenges of using multimodal to understand “literacy and communicative possibilities of the 21st century” (p. 5). Here again we see multimodal composition linked to literacy as demanded by advancements in technology that change our communication and meaning making practices. This raises the level of responsibility instructors have in meeting the specific needs of both current and future students.

Alexander and Rhodes (2014) state that the need to successfully build students’ multiliteracies through multimodal composition practices requires/relies on providing students with:

robust vocabulary of textual, visual, and multimodal meaning-making—a vocabulary that should also include the nontraditional, the alternative, the knowledges of the body, and the avant-garde as part of its critical lexicon (p. 71).

Their observation falls in line with their warnings against fluctuating between treating multimodal composition as a process by which the field either continues to teach the traditional essay or to reconfigure it by only seeing multimodal composition “through the lens of the essay” (p. 45). This was a similar concern of Lutkewitte. If we are composing in different modes, then we need to treat them differently than the alphabetic text only version of composition that we are most familiar with. To view multimodal composition through the lens of the essay is to limit our rhetorical understanding of it. To avoid tying multimodal to practices that will prove to not be meaningful or beneficial to students results in multimodal composition practices that help broaden their scope of practices much in the way the NLG saw the need to do so with literacy pedagogy in 1996.

 According to Jennifer Roswell (2013) in *Working with Multimodality* “we are constantly in the flow of multimodality” (p. 1), which manifests itself in the various ways in which we are able to communicate with each other. For Roswell the benefits of composing in multiple modes allow us to posses a “level of abstraction and universalization that crosses discipline-specific practices” (p. 2). But then, what does it mean to be multimodal? According to Roswell it means, in part, that we producers aware of “how modes work” and how they work together (p. 3). If we are familiar with different types of modes, then literacy pedagogy and/or multimodal pedagogy must reflect our previous knowledge working with or experience these modes. By treating multimodal composers as producers, scholars can look to producers of these texts in professional settings, such as video editor, etc. Producers at this level inform multimodal pedagogy (p. 148) by helping to draw attention to the fact that other modes outside of words/text only are equally important in communication (p. 147). Roswell, much like Alexander and Rhodes wants equal representation and attention given to all modes in an effort to ensure that pedagogical practices go beyond acknowledging the importance of working with multiple modes (p. 148), and actually give every mode “equal value” (p. 148). This approach is slightly different than others in that to give each mode its due value would require focusing on one mode before mixing them together to compose. The affordance of this is a deeper understanding how each individual mode operates and moves rhetorically before combining it with others. The fact that we, as Roswell states, are always multimodal may equate to our limited understanding at a deeper level of what that multimodality actually is, and without thinking about it rhetorically we may overlook the both the positive and negative attributes of each specific mode we use when composing. This approach places the composition classroom as a space to explore familiar and unfamiliar modes in an effort to reach a greater understanding of them so that communicative practices are strengthened through the practice of multimodal composition.

Similarly, Clarke (2009) views the composition classroom as a place where composition practices can develop and strengthen literacies of students. In “The digital imperative: Making the case for a 21st-century pedagogy” Clarke adds to the mulitliteracies conversation by acknowledging digital rhetoric as another literacy students must develop and enhance. She uses Lanham’s *The Electric Word* to support the shift towards images and words in writing and points to web 2.0 technologies as a means to access and allow for exploring new ways to encourage authorial control of writing (p. 28). Assignments such as the E-Portfolio are highlighted as a means for “discussions of ownership of digital material” (p. 29). Clarke goes so far as to describe the composition classroom as an “emerging space for digital rhetoric” and views this as one way to develop students’ literacy in digital rhetoric. If students are composing in digital spaces, then they should also be aware of theories and practices in the realm of digital rhetoric, which falls in line directly with the idea that a comprehensive education of multiliteracies must reflect the growth of knowledge in digital rhetoric. It should be noted that within an E-portfolio there are elements of composing by mixing modes, which enhances its appeal as an assignment and practice to be included in first-year composition curriculum because it takes a familiar concept/assignment and moves it into the 21st century.

It is no coincidence that following these strong statements in support of moving away from alphabetic text, and relying upon interfaces and digital spaces for communication that some in digital rhetoric focus more on the technology than the persuasive practices. Clarke’s argument that the composition classroom is a space to incorporate concepts of digital rhetoric also makes it a space to include procedural rhetoric, and electracy. It can be argued that there are assignments that implement elements of digital rhetoric, procedural rhetoric, and electracy, but can a multimodal assignment provide students the opportunity to practice composing in different modes, developing multiliteracies, using new/different software, questioning their relationship to technology, and practicing composing in non-alphabetic text? This is as an important question to ask as any in relation to first-year composition curriculum, because first-year composition curriculum must value new writing practices associated with specific technologies, while still valuing the writing practices of the past. It can be understood that writing and composing has always been multimodal, but when mixing modes in new media, the focus tends to be on newer communication and composition practices. The result of this can be the exclusion of other types of multimodal composition practices, specifically those that do not require use of digital environments. The importance here lies in the fact that it is possible to teach students to make meaning mixing modes that are not digital.

Jody Shipka explores this in *Toward a composition made whole (2011)* notes that “one impetus for curricular change has to do with bridging the gap between the numerous and varied communicative practices in which students routinely engage,” which captures the need of the field to not only stay current, but also relevant. However, this reasoning can at times lead to privileging new media and new technologies as a means to achieve pedagogical goals, which can lead to excluding multimodal composition practices that are not digital. The eagerness to incorporate elements of current communication and composition practices in an effort to find a balance between the communication and composing practices of our students inside and outside the classroom can lead the field to embrace certain practices too quickly. Some may argue that the field of rhetoric and composition does not move to embrace these practices as quickly as they should, but there are valid reasons to being critical. As we hope our students will question and fully understand their relationship to technology and any communication and writing practices as a result of a specific technology, then we too must carefully consider how certain technologies and practices associated with them enhance our communicative practices. As Shipka warns, we should not only concern ourselves with the new, because it is possible that the practices we embrace, such as multimodal composition, might be one we’ve long been participating in and teaching. While it is important to look to our past, the current speed at which technology develops, and influences our communication, writing, and how we make meaning it is impossible not to look at the present with a keen eye to the future. To do this we must look back, while looking forward, which means that while we are implementing multimodal, or multimedia assignments in first-year composition curriculum we must also look for ways to incorporate digital rhetoric, procedural rhetoric, and electracy. The next section will dive deeper into additional theories that are both beneficial when teaching multimodal composition and reflect more current scholarship.

**Digital Rhetoric, Procedural Rhetoric and Electracy**

Digital rhetoric, with its various definitions and deeper understandings of the role of technology both in and out of the classroom, often preoccupies itself with theory that is critical and challenging to the ever-changing technological scope of our daily lives. Digital literacies as a result of advancements in technology, and continual integration in the classroom, concerns itself with developing literacies that are deemed necessary because of the ways in which our daily lives involve interacting with an interface that we must navigate in some meaningful way. The composition classroom, as a result, is often the space that allows for students and instructors to apply specific definitions and approaches to digital rhetoric, procedural rhetoric, and electracy to specific assignments.

In an attempt to better understand a potential framework for this studythe following pages review definitions, similar movements, and areas of concern within digital rhetoric, procedural rhetoric, electracy, digital literacies, and composition pedagogy from 1991 to 2015 in order to \_\_\_\_\_\_\_\_ .

 Whereas digital rhetoric theorizes the changing technological scope of our daily lives in communication practices and rhetorical awareness, procedural rhetoric concerns itself with the computational practices of using a computer, or software. Procedural rhetoric is as equally as persuasive as verbal and visual forms of communication. Electracy moves onward by addressing the participatory nature of composition as a result of video culture. Scholarship in digital rhetoric, procedural rhetoric, and electracy provide a framework for new or different concepts to address and incorporate into first-year composition curriculum, because they allow \_\_\_\_\_\_\_\_\_.

In 1993 Richard Lanham coined the term *digital rhetoric* in his book *The Electronic Word: Democracy, Technology, and the Arts.* While he does not supply a specific definition he introduces the concept of a computer as a “rhetorical device as well as a logical one” in use. He notes that the computer is seen as logical, but not rhetorical. He views the electronic word as a means to electronic expression and as such it fits within the Western Arts & Letters. Lanham attempts not only to legitimize the electronic word, and electronic expressions, but also creates the space for the work that follows under his term of digital rhetoric. He focuses more on the manipulation of text and the results of moving text to the screen from the page, which is understandable given that this piece first appeared in 1992, and again in 1993. This suggests that composition is changing, and with the computer there will be different types of compositions. Equally as important was his view of the computer as a rhetorical device, which allowed for scholarship to be done in digital rhetoric. The scholarship in the field of digital rhetoric varies, and as such several different approaches to the study of digital rhetoric exist resulting in several different working definitions and understandings of digital rhetoric.

In 2005, James P. Zappen attempts to differentiate between traditional and digital rhetoric in “Digital rhetoric: Toward an integrated theory.” He defines digital rhetoric as “traditional rhetorical strategies function and how they are reconfigured in digital” (p. 319). Zappen addresses the difficulty of applying traditional rhetoric to digital media, and sees digital rhetoric as the integration of rhetoric’s 2,000 year old history with constraints and affordances of digital environments (p. 319).

Five years later Elizabeth Losh approaches digital rhetoric differently. As a result of developments in technology and an increased reliance and uses of technology in our daily lives, we begin to see definitions of digital rhetoric that attempt to address the shift and implications of digital rhetoric. In Losh’s 2009 book *Virtualpolitik : An electronic history of government media-making in a time of war, scandal, disaster, miscommunication, and mistakes* she provides a comprehensive four-part definition of digital rhetoric:

1. The conventions of new digital genres that are used for everyday discourse, as well as for special occasions, in average people’s lives.

2. Public rhetoric, often in the form of political messages from government institutions, which is represented or recorded through digital technology and disseminated via electronic distributed networks.

3. The emerging scholarly discipline concerned with the rhetorical interpretation of computer-generated media as objects of study.

4. Mathematical theories of communication from the field of information science, many of which attempt to quantify the amount of uncertainty in a given linguistic exchange or the likely paths through which messages travel. (p. 47 - 48)

This definition encompasses several aspects of scholarship within digital rhetoric. It touches on digital genres as a means of discourse, public rhetoric/political messages distributed through networks, the computer generated media becoming objects of study in their own right, and the use of mathematical theories of communication within information science to gauge linguistic exchanges. The importance of this comprehensive definition is that it details the difference in approach and understanding of what digital rhetoric is, what it can do, and ultimately how it is interdisciplinary.

Carolyn Handa’s 2013 book *The Multimediated Rhetoric of the Internet: Digital Fusion* approaches digital rhetoric as practicing rhetoric in a digital space that incorporates visual and textual elements. Specifically Handa defines defines digital rhetoric as:

“simply (or maybe not so simply) traditional rhetoric applied visually as well as textually. It is not another form of rhetoric. We do not switch from digital to traditional rhetoric. All of the components we are accustomed to discussing in traditional rhetoric, especially having to do with style and arrangement for the purposes of conducting logical, discursive, persuasive arguments, are elements that can occur visually” (p. 18).

This definition views digital rhetoric as traditional rhetorical practices in digital spaces. Handa’s inclusion of the visual elements attempts to account for these types elements one can use in a digital space. This is one example of the overlap between visual and digital rhetoric. Handa’s view of digital rhetoric as rhetoric occurring in a different space tends to keep the field of rhetoric in line with Aristotle’s definition. While definitions need not necessarily break away from rhetoric’s past there does exist an area to address new concerns as a result of advances in technology and our uses of such technology.

Porter (2008) addresses the role of delivery in digital rhetoric in “Recovering Delivery for Digital Rhetoric and Human-Computer Interaction.” He argues that as a result of the importance of delivery to digital rhetoric “technical knowledge is integral to digital rhetoric” (p. 220). He points out that this type of knowledge is not mechanical or procedural, but the intersection where knowledge and rhetorical/critical questions meet (Porter, 2008, p. 220). The result of this meeting is the need for what Porter describes as a theory of rhetoric that should “encourage productive thinking about how to communicate with others” (p. 220). Reclaiming delivery, as it was once a somewhat forgotten canon, is about bringing in useful rhetorical theory in an effort to produce better communicators. As technology develops and becomes increasingly important in our use of it, and reliance on it we too need to become better communicators with it while maintaining the critical awareness to question it. What we see here is that definitions and understandings of digital rhetoric shift what we teach and how we teach. It does not necessarily replace what is previously taught, or associated with composition. In some cases it puts new importance on preexisting ideas. In others it may push us to think of older theories in different or new ways as demanded by its use in a new space.

Doug Eyman in Chapter 1 of *Digital Rhetoric: Theory, Method, Practice* (2015) also makes a connection between digital rhetoric and visual rhetoric, based on “the sense that a focus outside of the tradition of written and spoken argument broadens the available opportunities to apply rhetorical theory to new objects of study.” Eyman continues by linking visual and digital rhetoric by writing that “visual rhetoric also draws on theory from art and graphic design as well as psychology (gestalt theory), bringing rhetoric into these spheres even as they contribute to the overall rhetorical methods,” and that since digital rhetoric includes visuals “it can align itself with these fields, as well as other technical fields—such as computer science, game design, and Internet research—that don’t usually take up rhetorical theory.” This approach continues to incorporate and promote interdisciplinarity. Eyman’s definition of digital rhetoric also accounts for the performance of composing and distributing, using a method of delivery that is not only based on speaking or writing. The implications of digital spaces suggests a reliance on the visuals used and perceived that also find themselves closely related to methods of delivery. This results in the reemergence of the importance of delivery. For composition it means thinking about delivery in different ways, and for teaching composition this means teaching delivery.

While scholars attempt to define digital rhetoric Ian Bogost argues for the creation of a different branch of rhetoric. In his 2007 book *Persuasive games: The expressive power of videogames* Bogost argues that a “theory of procedural rhetoric is needed to make commensurate judgments about the software systems we encounter every day,” and to also to “allow a more sophisticated procedural authorship with both persuasion and expression as its goal” (p. 29). He defines procedural rhetoric as “the art of persuasion through rule-based representations and interactions, rather than the spoken word, writing, images, or moving pictures” (p. 3). This definition is closely linked to the procedural computational practices. Bogost views these practices equally as persuasive as verbal and visual forms of communication. However, rather than the persuasion done in alphabetic text or multiple modes with a knowledge of language and images it is achieved as a result of the procedural nature of computer code. The code may appear to us in forms we know, but it is essentially the result of code. Therefore, to compose media within a computer is “the art of using processes persuasively” (p. 3). His work in procedural rhetoric pushes scholars to move beyond the view that the technologies we use are simply tools available to us. Bogost view of procedural rhetoric as the “practice of using processes persuasively,” due to the nature of the digital spaces we compose in, and inhabit, make it impossible to separate any understanding of digital rhetoric from the processes we engage in to accomplish communication. Bogost specifically applies procedural rhetoric to video games, but the concept of persuasion through software, and procedural processes ought be included under the umbrella of digital rhetoric, and as a potential theory to inform pedagogical practices in composition.

As Bogost argues for procedural rhetoric Sarah Arroyo attempts to shift the focus towards electracy. In Arroyo’s (2013) book *Participatory Composition: Video Culture, Writing, and Electracy* uses Gregory Ulmer’s concept of electracy as shediscusses participatory composition, and the connectedness of students that alters composition classes. Ulmer (2003) in *Internet Invention From Literacy to Electracy* views electracy as “to digital media what literacy is to print” (p. xii). Ulmer views the lack of consensus about teaching new media and an understanding that “new forms require new institutional practices” as the basis for the necessity of electracy. Ulmer believes an education based on electracy is needed to better understand new media practices to participate in a “virtual civic sphere” (p. xiii). Electracy is the literacy needed to better understand the electric media, multimedia, and digital media. It is needed to understand new media practices because theories only related to print literacy can’t simply be applied to the new electric media.

Arroy uses Ulmer’s electracy to explore the connectedness of current online culture that includes what Arroyo labels “video culture” (p. 1), but the concept of electracy is not limited to it, or other forms of communication. Rather, Arroyo uses it as a theoretical framework because for her the concept of electracy goes beyond digital literacy. Electracy includes “civic engagement, community building, and participation” (p. 1). The idea that a specific type of literacy is now needed to enter the civic sector speaks to the increased usage of electric and digital communicative practices. The importance of print and print literacy has not diminished, but that does not mean we can ignore literacies related to more recent practices.

In Arroyo’s work we see a continued desire to create scholarship that reflects current writing practices. If electracy is different than print literacy, then 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 electracy offers us a chance to work with “established forms as well as inventing new ones as they become timely and necessary” (p. 111). This makes electracy important because it attempts to include composition practices as they happen and are needed in real time. This includes, but is not limited to writing outside of the classroom on multiple platforms. Where Shipka notes the desire to bridge the gap between the writing practices of students inside and outside the classroom, Arroyo sees electracy as the bridge we continually try to build with theories and approaches to incorporating writing practices outside of those that include alphabetic text only. If electracy offers us the chance to practice a theory as it is developed, then this approach should find itself as embedded in first-year curriculum as digital rhetoric, and procedural rhetoric.